

The complementarity of foreign direct investment and migration policy and economic development in Australia, Malaysia and the Asia-Pacific

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Declaration of originality

This thesis was written while I was studying at the Australian National University, including as part of a research visit to Universiti Malaya. The entire thesis is my own work, unless otherwise acknowledged in the text or Acknowledgements. Word count exclusive of references, figures, tables, contents lists and appendices is 73,452 and the appendices total 8,151 words.

A handwritten signature in black ink, consisting of a stylized 'S' followed by a long horizontal stroke that ends in a small upward flick.

Stewart Michael Nixon

6 June 2024

Acknowledgements

My thesis took longer than I had anticipated. I acknowledge this with more pride than regret having navigated a once-in-a-century pandemic, my excessive ambitions, and the ordinary challenges of completing a thesis. It has been an extraordinary journey filled with unexpected obstacles and opportunities, moments of inspiration and profound frustration. The destination looks vastly different from that envisaged at various formative stages, but has scratched professional itches borne of many years working in foreign direct investment policymaking and regulation within the Australian Government and a too brief sojourn at the Organisation for Economic Co-operation and Development (OECD) that fuelled burning interests in Southeast Asia and indicator development. I note unequivocally that the views expressed in this thesis are my own and not those of my employers past or present, while acknowledging the Australian Government Research Training Program and Crawford School of Public Policy scholarship funding that supported my research.

Undertaking a thesis is about the enriching experience more so than the recognition that comes from completion, and the experience would not have been nearly as fulfilling without the insights and comradery of countless people. To my panel first of all, stoically led by my chair Emeritus Professor Peter Drysdale AO, ably supported by Dr Shiro Armstrong in the role of primary supervisor and supplemented by Professor Timothy Hatton. Without your encouragement this research would never have happened let alone finished, and your sage advice has helped shape a more meaningful contribution. The associated connections and broader experiences facilitated through the (East) Asian Bureau of Economic Research (ABER) were equally invaluable.

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Abstract

This thesis investigates the circumstances under which migration and foreign direct investment (FDI) are complementary and conducive to economic development and what national and regional policies might enhance their joint and positive effects. A central idea is that factor flows, policies and development drivers may be mutually reinforcing, with prevailing policy biases against migration impeding the realisation of potential benefits.

The study has four broad components. It begins by theoretically and empirically exploring the relationships between migration, FDI and host country characteristics, identifying what determines concurrent net migrant and FDI inflows. The analysis is situated along the economic development path to relate factor flow complementarity to improving economic outcomes. Leading development drivers — investment in human capital and institutional improvements — are identified as the main determinants of concurrent migrant and FDI inflows. These policy-influenceable characteristics matter more than resource endowments or geography, suggesting that the economic benefits of complementarity in labour and investment inflows can be harnessed by any country that pursues pro-development policies.

These ideas are explored further through detailed Australia and Malaysia case studies. In Australia, major historical shifts towards a more diverse, skilled and temporary migrant intake are demonstrated empirically to have increased FDI inflows. For Malaysia, migration's unacknowledged contribution to rapid economic development (alongside FDI) and claims that a near unlimited supply of low-skilled foreign workers impedes industrial upgrading are interrogated. While complementarity in factor flows has supported development in both countries, differences in its manifestation (such as directionality from FDI to migration and vice versa) and economic outcomes provide nuanced insights.

The Australian and Malaysian case studies also incorporate investigation of policy influences — migration policies on FDI flows, FDI policies on migration flows and policy interrelationships. For both countries, quantitative policy indicators — contextualising and categorising policy changes across each country's modern history — are developed and employed for this purpose. Tightening FDI policy generally reduces migration inflows, tightening migration policy mostly increases FDI inflows, while the formulation of FDI and migration policies appears largely independent in both countries. Migration policy's influence on FDI appears to result from policies favouring incumbent firms, with biased liberalisation creating an unintended deterrent to new FDI.

The findings are applied to the regional context, offering recommendations for countries individually and collectively. That exercise is underpinned by a point-in-time snapshot of policy settings for 23 Asia-Pacific countries capturing over 200 policy elements. Policies to better leverage migration, FDI and their complementarity to support development abound, with areas of potential improvement identified for all sample countries.

Preamble

When my now panel chair (Peter Drysdale) and primary supervisor (Shiro Armstrong) first approached me to undertake a PhD and encouraged me to choose a topic within my interests, something combining FDI and migration policies (and their consequences) was an obvious choice. I had spent several years prior working in FDI policymaking and regulation within the Australian Government and through interactions with the compilers of the OECD FDI Regulatory Restrictiveness Index (OECD 2022) had developed an interest in policy indicator development. A relative paucity of empirical evidence on the impacts of policy — prior screening of proposed FDI in particular — was a bugbear that I felt warranted addressing in the interests of sound policymaking. This gap is equally relevant to migration policies and many other macroeconomic policy areas due to the inherent challenges in policy quantification.

My interest in migration is both personal (coming from a migrant family) and stemming from work-related observations. Among them is an apparent disconnect between Australia's migration and FDI policy formulation and Malaysia's explicit association between maintaining a supply of foreign workers and retaining investment competitiveness. I wondered whether one approach is optimal to supporting economic development and under what circumstances or conditions, finding few answers within existing scholarship. Following a more thorough examination of the literature in the first phase of my thesis, I decided to explore the links between migration and FDI policy formulation, people and capital flows, and development outcomes to situate the indicator-based analysis.

The geographic scope of my research began with Australia and Malaysia at its centre but has evolved during the thesis lifecycle. Being an Australian native and policymaker, together with Australia's suitability as a case study (detailed later), explains its choice. Malaysia too fitted the analytical brief while also having become a second home to me since working on the OECD's first Economic Assessment of Malaysia 2016 (OECD 2016). The Philippines was to provide a third, countervailing case study as a major labour sending/minor capital accumulating country, but COVID-19 pandemic border restrictions forced the cancellation of necessary fieldwork. The broader application of policy lessons deserves a regional focus, with a sample of 23 countries in Asia and the Pacific (the 10 Association of Southeast Asian Nations (ASEAN) countries, eight South Asian countries, China, Japan, South Korea, Australia and New Zealand) ultimately chosen to suit my contribution to the World Bank's *Deepening Linkages between South Asia and Southeast Asia report* (World Bank 2022) and set the parameters for Chapter 8. And testing of the overarching theoretical framework presented in Chapter 3 employs a global sample limited only by data availability.

The methodological scope has also followed a non-linear trajectory influenced by preliminary findings and the evolving global context. The development of quantitative policy indicators for selected countries (Australia and Malaysia) was envisaged at the outset, though the precise indicators for each country were driven by the availability of primary sources (Parliamentary Hansard and polling records for Australia, hardcopy government reports and Lim Kit Siang's online archive for Malaysia). Researching, conceptualising, technically documenting and applying the policy indicators empirically is a large and laborious undertaking for which capturing two countries, two subjects (FDI and migration) and 64-75 years was itself

ambitious. The indicators are supplemented by several additional purpose-built datasets, including measures for Australia's permanent migrant intake skills and diversity, a regional (point-in-time) snapshot of FDI and migration policies in the 23 countries underpinned by over 200 individual policy elements, and econometrically-modelled estimates of Malaysia's undocumented migrant population since 1963 — innovatively exploiting divergence between actual and expected patterns of rice consumption per capita and economic development. The undocumented migrant estimates paper — summarised in the Appendix and published in the *International Migration Review* (Nixon 2024) — was inspired by the recognition that empirical applications of Malaysian policy indicators would be severely hampered and less informative without reliable migrant estimates (the limitations of official statistics are discussed later). Additionally, I sought to explore complementarity through a mix of macro, micro and empirical evidence. The macro and empirical aspects are addressed throughout the thesis, beginning with a likelihood model of 'dual factor importation' to explain the factors behind countries (like Australia, Malaysia and about 28 percent of all country observations between 1985 and 2015) sustaining net imports of migrants and FDI simultaneously. Other chapters deploy time series models (vector autoregression (VAR) and vector error correction (VEC) models) to test the influence of policy indicators, major policy changes and complementary factor flows on each other and on economic development measures. While micro evidence is explored as part of a wide-ranging literature review, an intended investor survey/interview hybrid (which had been developed, fine-tuned, received ethics approval and had commenced participant outreach) had to be abandoned on pandemic logistical and business environment sensitivity grounds.

That covers the what, why and how underpinning my research, which touches on aspects of the context and significance of my contribution. The policy indicators — which include subcategory granularity (such as legal entry and stay policies for migration and equity restrictions for FDI) and will be made available to researchers alongside this thesis — offer innumerable additional applications of potentially global policy significance beyond those that can reasonably be covered during a thesis timeframe. The indicators, the snapshot and the undocumented migrant estimates all offer replicable models for researchers with other geographical and temporal interests. The conceptual framework and empirical applications exploring topical dimensions of complementarity (industrial upgrading consequences and migrant selection policies) and deploying the indicators advance understanding of how migration and FDI flows and policies contribute to economic development, with the precise findings detailed in subsequent chapters.

The turbulent international economic environment in which my thesis was undertaken further emphasises the relevance of my findings. The trade war between the United States (US) and China commenced during my first year and escalating major power rivalry continues to represent a substantial challenge to globalisation and the liberalising, cooperative international order that underpinned its substantive gains. The US is not alone among former bastions of liberalisation in retreating under populist leadership, undermining international institutions and policies that had ushered in a historically unrivalled period of economic prosperity. The trade war cost has been variously estimated as a US\$22.6 billion indirect tariff burden (globally) (Wu et al. 2021) or an immediate US\$7.2 billion loss to US real GDP (Fajgelbaum et al. 2020). More recent evidence more optimistically shows a reconfiguration of global trade patterns with winners and losers (Fajgelbaum et al. 2022). Third countries with

deep global value chain (GVC) links appear to have benefited from redirected activity, with US-China tariffs creating space for others to claim market share (Moreau 2022).

The COVID-19 pandemic (since March 2020) has further reshaped global governance, highlighting its fragility and cooperative limits in times of crisis. Pockets of cooperation notwithstanding, the pandemic has exposed the inadequacies of both multilateral governance mechanisms (in their present form) and nation-first governance. More than four years later COVID-19 has become endemic, with global governance playing little role in its suppression (which instead relied on nature (favourable virus mutations) and science (vaccines and cures)). More tangibly in respect of complementarity, the pandemic has further exaggerated the globalisation hierarchy (trade first, FDI second, migration last) and accelerated the shift in policies and attitudes towards securitisation and nationalism over liberal economic. Australia's retreat into pandemic isolationism was among the most profound, erecting screening and security barriers to investment, introducing strict borders prohibiting all but exceptional foreigners from entering, severely curtailing the return rights of overseas Australian citizens, and excluding foreign persons, overseas citizens and employees of certain foreign investors from economic support payments. Australia's migrant inflows have rebounded tremendously since borders reopened, but pandemic policies could cast a long shadow in areas such as migrant social and economic integration and investor confidence.

The pandemic has also been called a reckoning for traditional economic development models that valorise economic growth, liberalisation, globalisation, financial leveraging, and subjugated environmental and distributional considerations (Büscher et al. 2021; Leach et al. 2021). Pre-pandemic calls for a more sustainable and inclusive growth model with greater shock preparedness have loudened. The global economy and value chains have nonetheless demonstrated considerable resilience in the face of substantive shocks if one looks past the initial disruption. Indeed, GVCs have proven a greater source of resilience than vulnerability as depth and breadth of integration provided links to regions less affected by pandemic disruptions, including those rebounding faster (OECD 2021b; International Monetary Fund 2022; Brenton, Ferrantino, and Maliszewska 2022). And renationalisation would only incur efficiency losses for no overall improvement in pandemic shock resilience (Bonadio et al. 2021; OECD 2021b; Brenton, Ferrantino, and Maliszewska 2022). The vulnerability of migrants by contrast, whose interests were secondary in political decision-making, was starkly illustrated despite the efficacy of movement restrictions being questionable (Susan Martin and Bergmann 2021; Suhardiman et al. 2021; Clibborn and Wright 2020). Some argue there will be lasting implications for migrants, with a post-pandemic rebound in mobility triggering anti-migrant sentiment and reactionary policies (O'Brien and Eger 2021). Globalisation further biased towards trade and capital mobility over migration is an immediate and likely persistent outcome of the pandemic shock, which even more than the trade war demands deeper understanding of migration and FDI complementarity.

Russia's invasion of Ukraine (in February 2022) added another threat to the established order. The economic deterrent to war doctrine has doubtless lost some believers as Russia's global integration failed to eliminate Putin's aggressive instincts, but retreating from global integration is likely a faulty lesson from this episode (D. J. Kim 2019; Armstrong and Westland 2022). Economic sanctions and the cultural influence spread by multinational enterprises have instead emerged as tools of modern warfare, with their effectiveness an assessment in progress (Allen 2022; Mahlstein et al. 2022; Sonnenfeld et al. 2022). Deployment of sanctions itself

exemplifies the criticality of multilateral cooperation to increase their impact and reduce opportunities for evasion. War also inevitably raises difficult questions regarding both investors and migrants, including whether Russia should profit from forced acquisitions of foreign assets and whether its global citizens deserve punishment for the actions of their country people; and the world is both economically and strategically better off for these questions being more difficult than ever.

Combined these three transformative events (and more recently conflict in the Middle East) threaten more seismic shifts in the international economic order, sowing the seeds of distrust and early sprouts of decoupling, re- or friend-shoring, sovereign industry policies, rising economic statecraft (sanctions and coercion) or military conflict. A disintegrating future is far from predetermined however, with the international order beaten not broken and multinational businesses and production networks continuing to prioritise profits over geopolitics. Voices supporting a liberal and cooperative future for global governance and economic exchange must be increasingly cognisant of their audience and context and be armed with nuanced arguments supporting their claims. Indeed, what precipitated the initial loss of faith in globalisation was inattention to its distributional consequences in both scholarship and policy (e.g. Stiglitz 2017; Rodrik 2018).

Trade wars, plagues and military incursions have thus underscored the topicality of international economic exchange and its contributions to improved livelihoods. Disturbances have very real implications for global poverty and economic growth in the developing world, which are more vulnerable to shocks (Loayza et al. 2007; Naoussi and Tripier 2013). The consequences of recent shocks have disproportionately affected countries with less extensive and diversified GVC links (Brenton, Ferrantino, and Maliszewska 2022; UNDP 2024). It would be a mistake for embittered developing countries to turn inwards based on the mistaken belief it would reduce future vulnerability, rather they should demand global leadership that reinforces the global governance system to better mitigate future shocks.

Better understanding complementarity between FDI and migration and its development implications is important to achieving this. Momentum has been slowed by shocks but the aspirational world order, underpinned by a rising global middle class increasingly informed of life abroad, would seem enduring if at greater risk. The forces underpinning international exchange have thus been disrupted not severed. Many developing countries — including those in the Asia-Pacific region — continued to increase investment attraction efforts or retained pre-pandemic openness to people movements when others became more restrictive (UNCTAD 2022). They stand to gain from countries that isolate or securitise themselves out of global production networks and supply chains. As all three major shocks have demonstrated, unwinding global integration delivers a substantive economic cost that impedes even the most ardent populists from garnering sufficient support for substantive isolationism.

As later chapters detail, my findings about investment and migration complementarity reinforce arguments against isolationism and towards less biased policies advancing international economic exchange. There are opportunities for countries across the development spectrum to better leverage migration and FDI for economic development through more collaborative, coordinated and long-sighted policies. I hope readers find my thoughts and conclusions beneficial to future advancements of migration and FDI policymaking in the region and beyond.

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Chapter 1

The relationship between migration and international capital movement

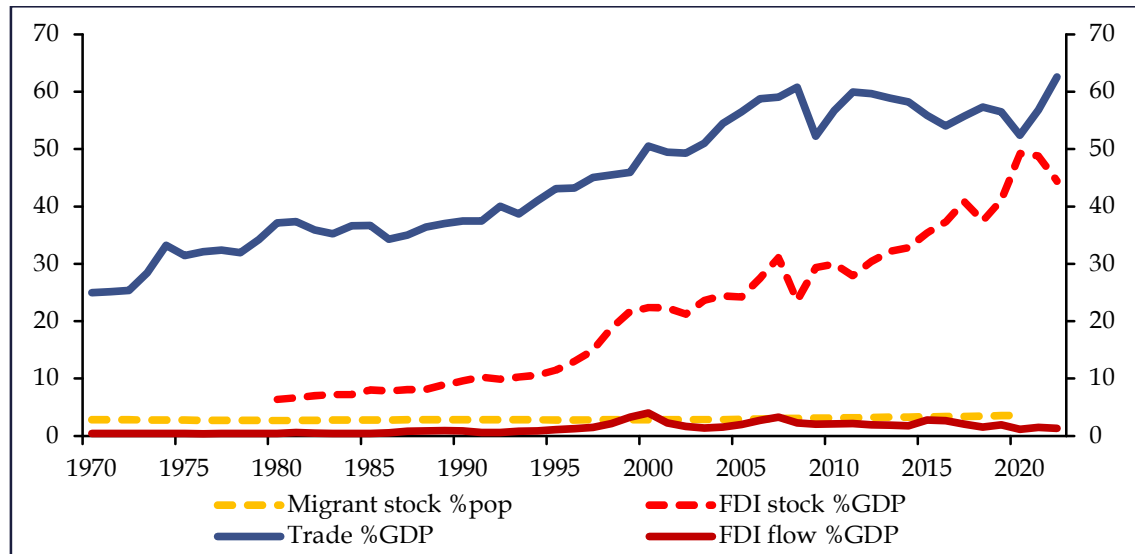
Conceptual foundations

The relationship between international capital movement and migration has a long pedigree in the history of economic thought that extends back to the classical economists. A dominant stream in early thinking about the movement of labour and capital casts them as potential substitutes for each other in the competitive allocation of global resources. But the relationship between capital and labour markets in today's highly globalised economy appears more complex and shows evidence of complementarity between foreign direct investment (FDI) and migration flows. This, and the role of migration and capital inflows in national economic development, are the primary interests in this thesis.

The efficiency enhancing benefits of the free movement of factors of production have been well established for at least two centuries (Ricardo 1817, p91). Liberalisation of the flow of factors of production allows well-functioning markets to optimise the allocation of labour and capital within and between geographical regions. Capital and labour shift to places with higher potential returns until factor rents are equalised, facilitating regional specialisation based on comparative advantage and generating economies of scale through the most efficient use of global resources. Under Ricardo's seminal framework, liberalising capital or labour markets is equally beneficial in a pure resource-use sense, with there being no theoretical incentive for nations to preference one over the other.

In the late twentieth century, liberalisation in practice looked very different from the unbiased predictions of Ricardo and later Heckscher and Ohlin (Heckscher 1919; Ohlin 1933). The recent (or second) wave of globalisation has seen nations unambiguously preference the inflow of capital over labour, in addition to the initial prioritisation of trade liberalisation (Figure 1.1). The stock of FDI as a share of world gross domestic product more than quadrupled since 1995 to exceed 49 percent in 2020 — before retreating to 44.4 percent in 2022 (UNCTAD 2023) — while the proportion of the global population living outside of their birth country has scarcely changed at around 3.6 percent (UN Population Division 2021). Many governments compete for foreign capital by providing financial or regulatory incentives while imposing strict barriers on potential immigrants, often with a variety of exceptions for 'undesirable' investments and 'preferred' migrants. Over a decade ago, Clemens (2011) famously quantified the effective policy wedge for each, suggesting financial instrument price gaps rarely exceed 15 percent whereas real earnings differences between comparable individuals across countries exceeded 1000 percent. As a starting point, global policy biases favouring capital over labour appear inconsistent with global welfare optimisation in a strict theoretical economic sense.

Figure 1.1: Historical factor movements



Sources: UNCTAD 2023; UN Population Division 2021; World Bank 2023.

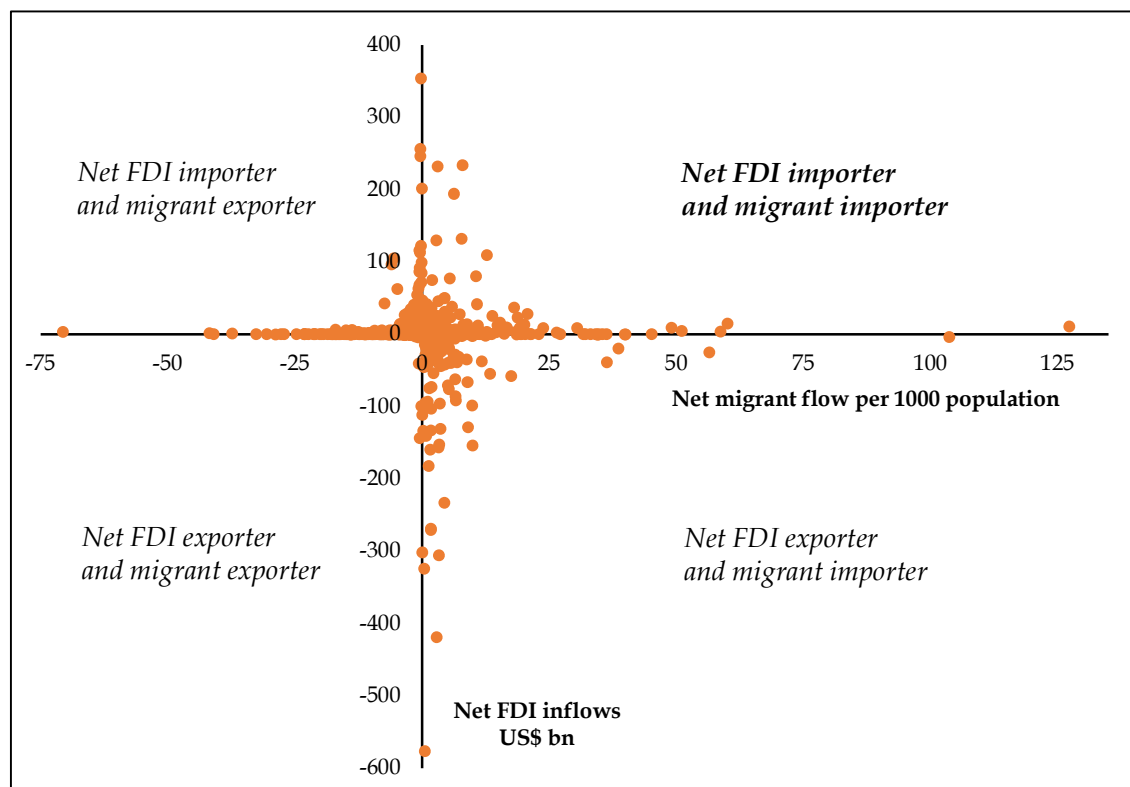
These policy biases globally reflect divergent perceptions in popular and political debate, in which more countries consider FDI to be economic development enhancing unless proven otherwise and immigration to be unfavourable or unsettling except where necessary to relieve temporary labour or skills shortages. FDI is more readily associated with supporting new industries, importing superior technology and management processes, raising employment and/or wages, and providing capital essential to growing the economy. Immigration is more often associated with taking local jobs, disincentivising capital accumulation, diluting native traditions and creating community unrest. Only a minority of countries view immigration as essential to the accumulation of human capital, filling labour shortages, creating complementary local jobs, contributing to domestic growth, building international business networks and influencing institutional development. As the next chapter discusses in detail, FDI is not unambiguously development supporting — that depends on other broader factors — while the contribution of migration to development has primarily been explored through an emigration lens but may also be positive for immigration. That is, immigration and FDI can both support economic development or exacerbate the harmful effects of poor institutions and policies (and reciprocally development encourages factor flows).

Countering misperceptions is not helped by a literature that itself is tilted in a particular direction. The migration and FDI literature is grounded in the seminal but simplifying arguments of Heckscher-Ohlin (H-O) Theorem, which treats capital (strictly, a broader concept that FDI) and labour as substitutes that flow in opposite directions depending on relative factor endowments (Heckscher 1919; Ohlin 1933; Bhagwati and Srinivasan 1983). As the next chapter documents, the premise of factor flow substitution provides the dominant baseline for empirical studies of migration and FDI movements. Many examine emigration (not immigration) as a conduit for FDI into home countries or FDI into developing countries as a driver or suppressor of emigration. The binary association of capital inflow with rich countries and labour inflow with poor countries likewise contributes to the simplification that raising capital alone is central to development. As evidenced and argued later, complementarity of immigration and FDI can be grounded in the relaxation of H-O Theorem

assumptions or in similar (or reciprocal) arguments to those advanced for emigration-FDI complementarity.

The number of countries receiving net inflows of both migrants and FDI simultaneously is not trivial. Global data for the period 1985-2015 aggregated into five-yearly increments reveals that around 28 percent of observations fall into the net migration, net FDI category (the upper right quadrant of Figure 1.2). The most recent period (2010-15) depicted in Figure 1.3 does not present an obvious geographical or developmental clustering of dual import countries. The prevalence and spread of such countries suggest that the binary association of capital inflow with rich countries and labour inflow with poor countries requires reappraisal. It begs the question whether such countries are experiencing a transitional phase often around middle-income overlooked by two-country development models or if there is some better explanation of the patterns observed empirically.

Figure 1.2: Net migration and FDI flows 1985-2015



Notes: Observations represent a country and five-year period (e.g. 2010-2015); periods begin and end mid-year.

Sources: UN 2019; UNCTAD 2019.

Intriguingly, Heckscher and Ohlin's seminal theories on which substitution are grounded were formed shortly after a period in which complementarity between immigration and FDI was most prominent (though perhaps not in their native Sweden). The first era of globalisation — the century prior to the First World War — saw around £10 billion in overseas investment and 45 million people move abroad as capital chased labour to 'settler' economies including the United States, Canada, Australia and Argentina (Graff, Kenwood, and Loughhead 2014; Hatton 2021). The key determinants at the time, within the facilitating circumstance of

imperial expansion, were factors broadly constituting absorptive capacity, including transport infrastructure, institutional or regulatory barriers, entrepreneurship, natural resources (including abundant land) and trained labour. In this era that began with the free movement of factors, an open policy environment was pivotal to economic development (O'Rourke and Williamson 1999).

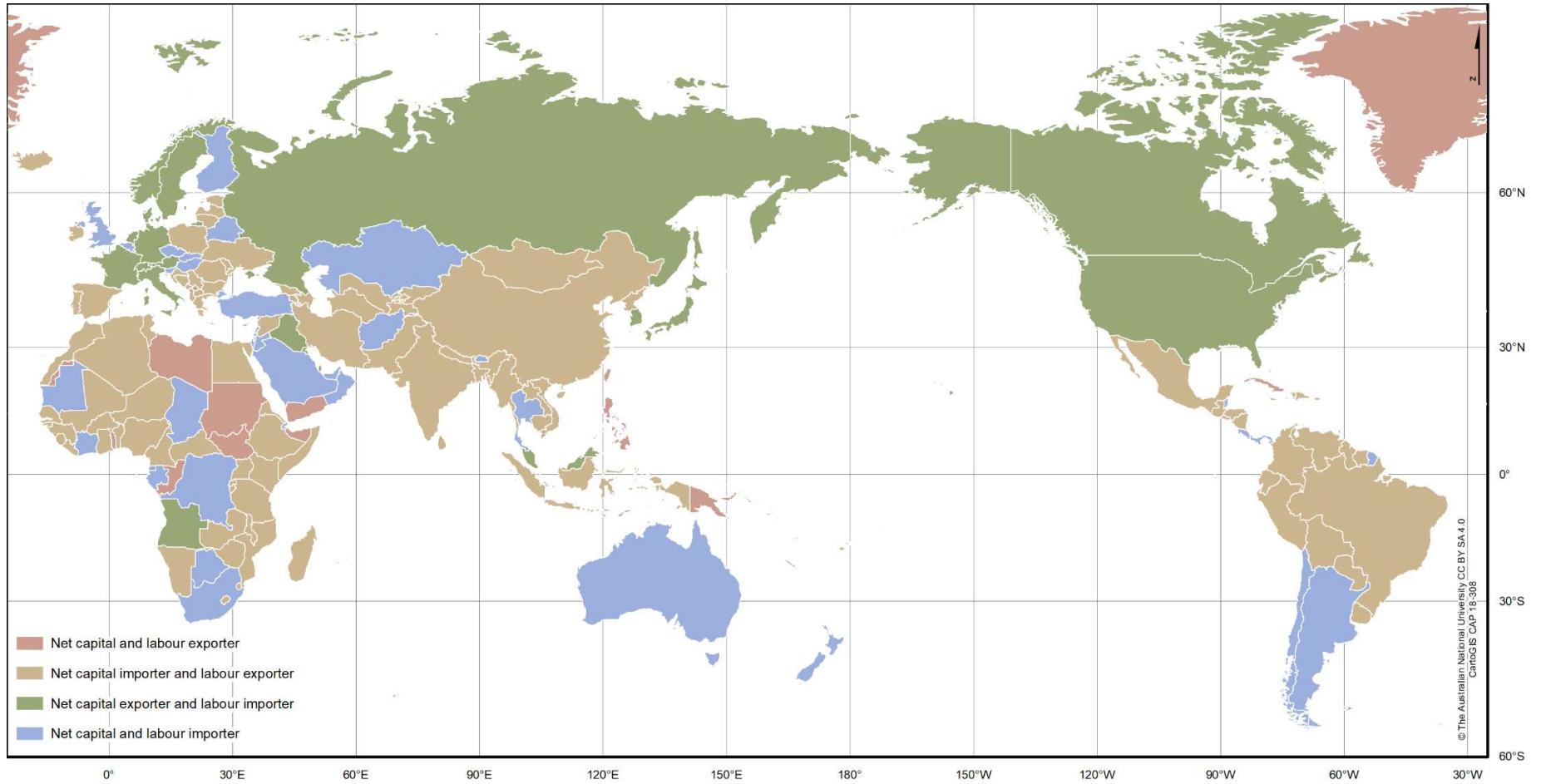
At a more granular level, there is an inherent inseparability between migrants and investors. There are some foreign investors who may themselves become migrants and expatriate employers and migrants who own and import capital. There is a significant business (micro) literature linking people and capital movements through the operations and strategies of multinational enterprises (MNEs; detailed in Chapter 2). In the current era of GVCs and transnational migrants¹, such arguments supporting complementarity between migrant and capital inflows would appear to have strengthened.

More theoretically, Kugler and Rapoport (2007) — in writing about the complementarity of emigration (not immigration) and FDI — propose three channels through which migration can directly influence foreign investments; adapted here to the immigration context. One is a factor availability effect — whereby increasing the number of migrants increases the return on capital. This argument applies in reverse to the quantity of capital on returns to migration, though their simultaneous increase creates factor return complexities analysed later. The second is a factor quality effect — as migrant skills and investor technology or processes fill domestic gaps inhibiting production possibilities. And finally, there is a networking effect that helps overcome institutional barriers to factor movement.

How such effects manifest themselves at the country level is the more substantive development question for policymakers. As previously alluded to, what differentiates countries and makes them more attractive to both foreign persons and investors — potentially concurrently — are their institutional settings and the policy choices they make, together with 'third factors' that bestow productivity advantages (such as abundant land, natural resources, human capital and technology). But the relative influence and combination of such factors on FDI and labour flows has not been extensively explored, only the individual drivers of migration or FDI. This thesis aims to contribute to understanding different influences with a particular emphasis on Australia, Malaysia and the Asia-Pacific.

¹ Transnational migrants are migrants whose economic, social and political interests cut across more than one country — usually their country of origin and residence. Maintaining active ties to the country of origin has become more common with the rise of temporary migration and advances in communications and transportation.

Figure 1.3: Geographical depiction of net capital and labour movements 2010-2015



Sources: Map produced (and reproduced) with the assistance and permission of CartoGIS Services, Scholarly Information Services, The Australian National University, using data from UN 2019; UNCTAD 2019.

Individual country experiences offer another clue to complementarity between labour and capital movements and are a fruitful avenue for exploring its dimensions. Australia and Malaysia represent relatively successful development stories and have been net importers of both migrants and FDI for most of their modern histories, together covering a significant development range. On face value their experience fits the first globalisation era and inseparability arguments more than substitution theories. Yet while both countries have accepted many migrants, they appear to have preferenced capital over much of their modern histories. Their migration and FDI policies appear to have been formulated largely independently with distinct objectives. Aside from the early post-war period when an overarching rebuilding emphasis connected efforts to encourage immigration and FDI, Australia has designed migration policies around population growth and domestic industry labour shortage alleviation quite independently from FDI policies focused on capital and employment generation. Malaysia has recently more explicitly related the continued need for foreign workers to retaining foreign investment but does so based on perceptions rather than evidence. Critics of immigration argue that low-skilled foreign worker dependency has reduced industrial upgrading incentives, but such arguments have not been empirically analysed. Explaining each country's development trajectory through a factor flow lens situated in their contextual (including policy) environments therefore offers a foundation for exploring the way in which factor flows may complement each other across the development path, and an opportunity to examine policy influences in detail.

If there are incongruities in Australia's and Malaysia's policy foundations it would suggest that policy distortions (capital favouritism) are geographically widespread. Policy biases may reflect the relative bargaining power and influence of business lobbies compared to individual migrants. Both policy biases and seemingly uncoordinated (and potentially contradictory) FDI and migration policy formation raise a question as to why countries unknowingly engage in sub-optimal factor flow and development policies.

This prelude to analysis of the literature in the next chapter highlights questions of dissonance between theory and practice that are at the heart of my research endeavour. A mix of theoretical, empirical, historical, micro-foundational and case study evidence is necessary to establish what complementarity exists between migration and FDI inflows and to what degree and in what contexts. There is much to explore regarding the relationships between migration and FDI flows, associated policies and their influence, the role of contextual factors and how all of these contribute to economic development — which ultimately is what matters. A nuanced understanding of migration and FDI interrelationships and policies that maximise their contributions to economic development is imperative, especially in the context of a geopolitical environment that threatens global integration and the rules-based order underpinning it.

Key questions

Extracting the ideas and interests arising from this narrative and putting them into a single research question, that question is: under what circumstances are migration and FDI complementary and conducive to economic development and what policies (national and regional) might support this?

To elucidate my conception of complementarity more clearly, it is centred on migration and FDI inflows that together potentially expand a country's productive opportunity set. The first

aspect of this arises from the direct bidirectional relationship between migrants and FDI within countries over time — whereby migrants directly or indirectly facilitate FDI and vice versa. This largely follows existing conceptions of factor *flow* complementarity — such as that presented by Jayet and Marchal (Jayet and Marchal 2016; see Chapter 2) — and various empirical estimates (including those summarised in Gheasi and Nijkamp 2017). In econometric terms, migration and FDI variables would exhibit a positive relationship over time. Later chapters explore a broader range of migration and FDI measures than are offered in prior studies, including both gross and net FDI flows, foreign company registrations, and permanent, temporary, documented and undocumented migrants.

To this various dimensions of *policy* complementarity are added — how migration and FDI policies contribute to factor flows. This includes whether migration policies directly or indirectly affect FDI flows and whether FDI policies similarly impact migration flows. The interrelationships between migration and FDI policies are also considered to better understand whether migration and FDI policies should liberalise or tighten together to best harness migration and FDI flows. Whereas prior studies include limited quantitative analysis of policies, this thesis develops and deploys both aggregate and categorical (such as equity restrictions, screening, legal entry and border control) indicator measures. Investigating these dimensions of policy influence is a significant and largely new inquiry.

The final dimension of complementarity is outcomes focused, relating the preceding dimensions to economic outcomes and *development*. This explores whether countries experiencing concurrent net inflows of migrants and FDI over a sustained period benefit from increasing the quantity and potentially the quality of resources. In econometric terms, whether both migration and FDI variables and their interaction term have a positive effect on economic outcomes including economic growth (real GDP per capita growth and also labour outcomes, capital deepening, human capital, institutions and industrial upgrading). More theoretically, it relates factor flows and their potential influences and outcomes across the development path to identify whether there are differences for more and less developed countries. This inquiry is also largely novel, as analysis ordinarily stops at establishing connections between migration and FDI not the consequences thereof. It nonetheless draws on a wealth of existing evidence of migration and FDI individually impacting economic development.

To summarise, ideas surrounding the complementarity of migration and FDI flows are extended to incorporate policy and development considerations. Complementarity is not a normative starting point but a label to orient analysis that challenges precepts that have guided prior literature. This research seeks to explore and explain relationships between factor flows, policies and development outcomes rather than argue the superiority of one structure of flows over another.

Succeeding chapters explore complementarity theoretically, empirically and with a view to translating findings into policy recommendations. Chapter 2 begins by examining the relevant literature, starting with that which is directly relevant to complementarity of capital and labour or migration and FDI. Considering gaps herein, a wider net is cast over migration and FDI individually to obtain guidance regarding likely drivers, policy and environmental influences and potential consequences for economic development. Theoretical approaches and empirical evidence relating to migration and FDI and associated policies individually, both micro and macro, have clear applications for analysing their interactions.

Chapter 3 then organises the key lessons from Chapter 2 into a conceptual framework for ‘dual factor importation’ at the country level. The framework has micro foundations, centred on the probability that people and investors will choose to locate at home or abroad given a range of determining influences. Influences, operating at the country level, are characteristics such as human capital, technology, institutions, resources and migration and FDI-related and relevant policies. The probability of dual factor importation (at the macro level) is then expressed as a function of the characteristics and policies that jointly influence net immigration and inwards FDI arising from the individual decision functions.

This framework is then related to development stages through an illustrative three-country representation of factor flow potential differentiated by labour skills and product complexity. Adding a third country to the traditional two-country representation highlights the potential for factor flow complementarity around middle income, but also potential trade-offs and obstacles for countries seeking to increase their production complexity. The stylistic representation helps inform the framing and interpretation of empirical analysis of the dual factor importation framework, which is tested against a global panel with similar dimensions to Figure 1.2. The results, summarised later, identify flow complementarity as occurring around middle-income and to be development improving alongside education and institutional improvements. Chapter 3 provides the macro, global and theoretical basis for the case study analysis in subsequent chapters. With the benefit of the case study findings, the concluding chapter reappraises this framework with particular emphasis on the role of government policies.

Chapters 4 and 5 explore complementarity between migration and FDI in practice through targeted case studies of interest to the Australian and Malaysian policy contexts. Australia is chosen as a representative developed country with a long history as a dual factor importer but having seldom explicitly linked flows and policies in practice. Of interest here are the major historical shifts in the composition of Australia’s migrant intake — towards a more diverse, skilled and temporary intake — on FDI inflows and economic outcomes. Malaysia is selected as a middle-income country and predominantly dual factor importer with contestable public and political beliefs around complementarity and factor flow influence on industrial upgrading. The joint and interactive contribution of migration and FDI to Malaysia’s economic development and claims that a near unlimited supply of low-skilled foreign workers impedes industry upgrading are scrutinised. Malaysia also offers an intriguing case study for comparing documented and undocumented (those without legal status) migrants and their complementarity with new and existing foreign investors.

Chapters 6 and 7 then extend the Australian and Malaysian case studies to examine how policy influences complementarity. The empirical analyses are enabled by developing comprehensive quantitative policy indicators. For Australia, the indicators capture the period since World War II and offer ‘on paper’ baseline regulatory indicators (reflecting stated laws and policies) supplemented by ‘in practice’ indicators (adding measures of how discretionary laws and policies are applied) tracing polling of public attitudes and political opposition parliamentary interventions. Malaysian indicators date back to Independence (1957) and include an equivalent ‘on paper’ baseline and an alternative ‘in practice’ indicator based on the press releases of leading opposition figure Lim Kit Siang. The indicators track iterative policy changes with relative significance quantified in historical context and include both composite ‘aggregate’ indexes and sub-category indicators (legal entry and stay, integration,

exit and border control for migration, equity restrictions, screening/approval, land, other restrictions and incentives for FDI). The indicators are then deployed econometrically to test policy influences on complementary factor flows. Given the large number of indicators and innumerable potential empirical applications, a great but not exhaustive amount of ground is covered. The intention is to make the underlying datasets and accompanying technical papers freely available for future research.

Chapter 8 takes the findings from the preceding chapters and applies them to a larger regional sample. Built around a study for the World Bank Group's *Deepening Linkages between South Asia and Southeast Asia report* (World Bank 2022), a detailed point-in-time snapshot of migration, FDI and intersecting (capturing direct interactions like expatriate visa and remittance investment rules) policy settings is developed for 23 countries (the 10 ASEAN countries, eight from South Asia and Australia, New Zealand, China, Japan and South Korea). The snapshot, capturing over 200 individual policy elements, is used to identify gaps for each country and underpin targeted policy recommendations to increase migration and FDI separately and together for individual countries and the region.

Finally, Chapter 9 synthesises the thesis findings and contributions and offers some concluding thoughts. An Appendix is also provided to capture supplementary results and summarise the large volume of supporting material, including modelled estimates of Malaysia's undocumented migrants, the methodology for constructing policy indicators, and the point-in-time snapshot methodology and country summaries (full supporting papers are available on request).

Chapter 2

Analytic foundations

The circumstances and policies under which migration and FDI are complementary and conducive to economic development depend on understanding the shared determinants of migration and FDI — which underpin productive differences between countries and higher factor returns. That provides the basis for further conceptualising immigration, FDI and development interlinkages introduced in Chapter 1.

Evidence linking migration and FDI individually to economic outcomes establishes expectations for their potential benefits and costs in combination. Analysis of policy design, effectiveness and impact similarly guides the development and assessment of policy metrics and recommendations for policy reform in the Asia-Pacific.

The literature also contains several gaps for subsequent chapters to address. There is a need for a framework linking migration and FDI inflows, contextual and policy factors (synthesising micro and macro determinants), and economic development. Such a framework can explain the empirical evidence of concurrent immigration and FDI inflows — why some countries experience it, where it fits on the development path and does it make such countries better off? Greater focus on middle-income country experiences and factor flow policy trade-offs would help establish how policies can best support economic development. A more nuanced exploration of different types of migration, FDI and policies would also help isolate differential effects of relevance to policy optimisation. This chapter brings to bear the relevant literature to build an analytic foundation for this inquiry.

The next section summarises the literature directly relating international capital and people movements both conceptually and empirically. Considering the above noted gaps, subsequent sections examine the individual migration and FDI literatures for further guidance on drivers, policies and development linkages.

International labour and capital movements and their intersection

Influenced heavily by traditional theoretical predictions of substitution, investigations of complementarity — here defined as the positive interaction between migration (labour) and FDI (capital) movements — represent a minority in the literature. There is nonetheless emerging evidence, both empirical and firm-level, that immigrants are not just associated with FDI flowing outwards but also inwards. This section details the relevant literature surrounding complementary migrant and FDI flows, establishing a theoretical and evidentiary basis for a positive relationship. It identifies that the literature treats establishing (or arguing against) this as an end in itself, whereas this thesis later incorporates policy and economic development considerations to encapsulate ‘complementarity’ more meaningfully.

Seminal models and adaptations

Traditional models of international factor movements provide a logical starting point for investigating factor flow relationships, given their large and persistent influence on thinking. These models treat the more amorphous concepts of capital and labour (rather than FDI and

migrants) as substitutes that flow between countries in opposite directions depending on relative factor endowments. Specifically, the Heckscher-Ohlin-Samuelson (HOS) Theorem argues countries produce goods intensive in their relatively abundant factor, with factor prices equalising via free trade without factor mobility (with free factor movement not needed for factor price equalisation; Heckscher 1919; Ohlin 1933; Samuelson 1948). Absent regulatory or market barriers, firms from capital-rich countries import labour or export capital, with each involving different taxation and other policy trade-offs for policymaker consideration (Ramaswami 1968; Bhagwati and Srinivasan 1983; Ethier 1985).

Adaptations of the basic model suggest home country welfare is instead maximised by attracting both labour and capital in the proportions found abroad (under assumptions of common technology and wage rates; Jones, Coelho, and Easton 1985). However, the arguments do not hold if immigrants are paid at home country wages, under which capital exports become optimal (Jones, Coelho, and Easton 1985), or when countries choose their policies competitively (Cheng and Wong 1997). The real-world experience of migrants covers the full spectrum from home to host country equivalent wage rates.

The traditional characterisation of factor flows and factor price equalisation faces some immediate challenges. It overlooks non-traded goods for which factor movements are necessarily more influential. It also ignores the possibility of cumulative causation, or the self-reinforcing concentration of both factors in the same location (Myrdal 1957). And in a practical sense, trade's substitution for factor movements is only partial in a world with significant between-country technological, human resource and income disparities, varying degrees of market functionality and policy barriers. Factor movements are therefore significant to production possibilities across locations alongside trade.

The simplifying assumptions of the HOS model — including that countries have identical technologies, constant returns to scale in production and perfect competition — have consequently faced scrutiny, with leading critics arguing relaxation of any one of these assumptions results in complementarity between trade and factor movements (Purvis 1972; Haberler 1976; Markusen 1983). Factor price equalisation has been difficult to support empirically, highlighted by the Lucas Paradox whereby more capital flows to rich not poor countries (Lucas, 1990). For example, there is limited evidence of factor price convergence in the prominent and increasingly integrated US-Mexico corridor (Gandolfi, Halliday, and Robertson 2017). Lucas (1990) suggests human capital differences and associated knowledge spillovers, capital market imperfections and investment barriers underpinned by rent-seeking behaviours explain the large differences in returns across countries, while the existence of third factors — particularly natural or human resource abundance — is also advanced as explaining these differences (P. J. Lloyd 1996; Clemens and Williamson 2000).

Difficulties supporting the HOS model empirically have spawned modified technology or productivity assumptions. Davis and Weinstein (2002) model broad-based technological differences between countries while Maskus and Nishioka (2009) suggest neutral factor augmenting productivity differences across industries provide a sufficient and simpler adaptation with greater predictivity. The logic is simple: more productive economies deliver higher returns for all factors. Technologically superior countries also tend to be more attractive places to live for both workers and business managers. However, as noted in Chapter 1, technology does not explain the many countries that attract both factors despite

little discernible technological advantage, or when and why technological leaders export capital (for example, post-2000 US and Japan).

Jayet and Marchal (2016) revisit the original assumption of unequal factor endowments and offer a two-country (developed-developing), two internationally traded goods and three factor (capital, unskilled and skilled labour) general equilibrium model explaining substitution between capital and unskilled labour and complementarity between capital and skilled labour. The model neatly illustrates the theoretical relationship between capital and differentiated labour, but uncalibrated production function specification drives the results.

To summarise, traditional theoretical conceptions of capital and labour provide an influential but widely contested baseline for considering international factor movements. Predictions of substitutability rest upon simplifying assumptions that when relaxed provide the conceptual underpinnings for capital and labour flowing in the same direction between countries. These include differences in technology, productivity, human capital, returns to scale, natural resources, competition and policies/institutions. An alternative framework is needed to support this thesis' inquiry into the influence of contextual and policy factors on factor flows and support empirical analysis in later chapters.

Theoretical approaches to complementarity of migration and FDI

Traditional beliefs surrounding factor substitution influenced early — and many contemporary — theoretical approaches linking migration and FDI. FDI into developing countries is linked to emigration into developed countries, with capital and labour flowing in opposite directions rather than being utilised within an economy.

Saskia Sassen's (1988) influential book was among the first to move beyond abstract conceptions of capital and labour and explore the influence of firm internationalisation on labour migration. Sassen argues that FDI contributes to the concentration and mobilisation of surplus labour for which sufficient employment opportunities are unavailable domestically, prompting emigration from host countries to developed countries made salient by FDI operations. Major cities in developed countries become hubs for control and specialised services supporting global businesses to manage production spokes in the periphery. Advanced service jobs flourish, low-wage service jobs accompany these and manufacturing 'downgrades' into labour-intensive production utilising low-wage foreign labour. Global cities thus have a high concentration of producer services (such as accountants, consultants, investment banks) for which proximity to consumers is less important and agglomeration economies weigh heavily. Sassen argues that even high technology sectors require supporting services that need minimal language skills and location-specific knowledge, making low-skilled immigrants (including internal migrants) a key complement to high-skilled natives. Glassman (1999) similarly argues that the implantation of a transnational global elite in developing countries (particularly in Asia), results in policies favouring global capital. Return migration of the overseas educated thus seems an important dimension of migration and FDI interlinkages.

However, Sassen's conception of global cities has little application to the sprawling metropolises in developing countries, which bypassed an industrial phase but have become global hubs for producer services. Manila — a place central to the control, oversight, clustering and networking of migrant workers — exemplifies a global city under a labour (not capital)

conception, as do other prominent cities in Southeast Asia and the Middle East (Tyner 2000; Malecki and Ewers 2007).

The potential for FDI to support development in low-income countries and consequently deter emigration has also been advanced. Sauvant, Mallampally and Economou (1993) argue FDI can reduce long-term migratory pressure by contributing to growth, poverty alleviation and direct employment in developing countries. The short-term effect of FDI, however, may be stimulatory as household income growth and multinational enterprise employment make emigration more accessible. More contemporary analysis modelling the relationship between FDI and emigration suggests linkage effects (networks and familiarity with the investor's country) dominate to spur emigration for the least developed countries, whereas home effects (higher home country wages and employment created by FDI) dominate to reduce emigration at higher development levels (Phyo, Goto, and Kakinaka 2018).

Models differentiating by skill level have become commonplace to explain emigration and FDI relationship patterns. Kugler and Rapoport's (2005) small open economy model incorporating human capital and migration costs predicts an initially negative then long-term positive relationship between emigration (particularly skilled) and FDI into the home country, as emigration reduces labour available for foreign investors but migrants later help facilitate investment. D'Agosto et al.'s (2006) model of migration decisions examines the competing influences of FDI on emigration including increasing domestic labour demand and/or wages, raising expected returns to human capital investment, access to training and skills supporting transnational work, and FDI networks reducing migration costs. Their empirical testing suggests FDI increases emigration.

In the reverse direction, Federici and Giannetti (2010) model the information revealing effects of developing country diaspora on FDI back to their countries of origin. They illustrate an overall 'brain gain' as the diaspora encourages FDI, which together with a productivity boost from return migration, exceeds the immediate negative effects of skilled worker loss. Shukla and Cantwell (2016) likewise link emigrants to firm internationalisation, highlighting how firms can leverage migrants' familiarity with both home and host country institutions and markets to navigate investments abroad without having to engage expensive advisory firms or cede control to local partners.

Baldwin and Venables (1994) argue that a positive association between skilled migration and capital together with positive human capital externalities create diverging development paths. A 'vicious path' sees excessive emigration discourage capital inflow and negatively affect factor prices and future expectations, perpetuating anti-development incentives. A 'virtuous' path sees optimistic development expectations incentivise potential migrants to stay, retaining a more attractive labour supply to foreign investors. Extending their logic to immigration suggests adding migrants further improves labour supply quantity and quality attractive to investors and conducive to development.

Ivlevs (2006) presents a rare model relating immigration to FDI. He demonstrates that in a small open economy with exogenous (policy determined) immigration inflows and endogenous (perfectly mobile) capital flows, high-skilled migrant inflows always stimulate capital inflows, whereas low-skilled migrant inflows increase capital only when non-traded and imported goods are strong substitutes.

The idea that immigrants and investors can be mutually reinforcing is perhaps best captured in a different strand of economics — New Economic Geography (Krugman 1991; P. Martin and Rogers 1995; Forslid and Ottaviano 2003; Candau 2013) — which builds upon Myrdal’s cumulative causation concept. It puts location choice at the centre of factor mobility decisions, highlighting clustering effects (increasing returns to scale) and public infrastructure levels (interpreted broadly as physical infrastructure and institutions) as key determinants. Similar firms cluster geographically, motivated by a pooled labour market for specific skills, scaled production of non-tradeable specialised inputs and informational spillovers from proximate competitors. When foreign labour and capital are factored into these models, ‘circular causality’ or ‘positive feedback’ mechanisms explain how migration and FDI clustering can be mutually beneficial so long as agglomeration costs do not overwhelm them. Put another way, migration shifts expenditure as most income is spent locally; consumption expenditure changes prompt production relocation as firms reduce costs by locating near markets; this in turn induces a fall in imports and living costs in the host location; lower costs are reinforced by capital agglomeration reducing the price of goods produced under increasing returns; which, all things equal, raises real wages and attracts more migrants. The potential break in the circuit is escalating local congestion costs. The simplifying assumptions of these models — such as unskilled labour immobility, myopic skilled migrants, assumptions of firms and workers moving together (no displacement of native workers) and homogeneous individual preferences (Tabuchi and Thisse 2002 provides an exception) — detract from their real world applicability. They nonetheless highlight the benefits of clustering and cost of distance.

Models of heterogeneous firms also relate immigration to FDI, wherein productivity differences influence firm FDI and export decisions. Higher migration is incorporated as a lower fixed cost of production that encourages FDI to increase more than exports (Helpman, Melitz and Yeaple, 2004; Kugler and Rapoport, 2011).

The migration-FDI relationship has been attacked from additional angles, each with strengths but significant shortcomings. In particular:

- Marchal’s (2013) agent-based model of potential migrants and investors neatly captures individual preferences, network effects and expected returns in an iterative decision environment, but by modelling wage differentials as a firm cost excludes the potential influence of third factors that raise returns for both migrants and investors; and
- A political economy approach, in which immigration policy and firm mobility are substitutes — as open immigration makes firms more competitive and less inclined to move overseas — and trade and investment liberalisation reduce support for open immigration through the departure of liberal policy-supporting firms (Peters 2017). This dismisses the role played by other actors and heterogeneity within groups in their support or opposition to immigration.

In sum, most theoretical models focus on emigration (not immigration) and FDI. They nonetheless contribute applicable ideas including labour skills differentiation and aggregate factor supply shifts. Immigration frameworks then highlight agglomeration (clustering) and firm productivity differences as potential drivers of concurrent factor inflows. No single approach incorporates micro foundations into a macro framework or expands the theoretical model beyond a simple two-country paradigm. This precludes analysis of macro determinants and analysis of middle-income economies, which as Chapter 1 identifies could

be central to explaining concurrent factor inflows (as recipients of migrants from less-developed and FDI from more developed countries). Chapter 3 address these theoretical gaps.

Empirical evidence

Empirical analysis of the migration-FDI relationship has burgeoned in recent years but remains a comparatively niche field. The empirical literature is nonetheless more extensive than the theoretical in exploring relationship characteristics, direction and magnitude. Results have mostly fallen within an elasticity of 0.2-0.4 in the migration (stock) to FDI direction (a 1 percent higher migrant share of population increases FDI by 0.2-0.4 percent), with evidence stronger for skilled migrants but not universally damning for unskilled. The apparent positive association between migrant skills and capital may be a product of the historical and industrial context (it has not always been so, see Lafortune, Lewis, and Tessada 2019) and geographical sampling or a persistent feature central to understanding the contemporaneous relationship. There has been comparatively little investigation of the extent to which FDI prompts additional immigration, with such evidence suggesting a potentially positive relationship requiring further examination. The literature on firm internationalisation more convincingly suggests that expatriate deployment is a central and perhaps sustained contributor to MNE activities and that migrant employees can facilitate or influence overseas investment opportunities. How this manifests within countries depends on labour market needs and policy restrictions. The context surrounding the relationship is essentially unexplored however, including analysis incorporating host and home country characteristics, concurrent migration drivers and a deeper examination of policy effects — gaps attended to in later chapters.

Most studies approach the task with preconceptions around relationship direction, providing a natural basis for organising this section, which begins with the predominantly macro (country-level) evidence before exploring the micro (firm-level) evidence from the business literature.

Migration → FDI

Most empirical studies argue that the relationship works primarily from (e)migration to FDI. Kugler and Rapoport's (2007) seminal contribution presents three key channels: a straightforward factor availability effect — more migrants at a location means a higher return on capital (all else equal), encouraging FDI; an imported increase (quantity and variety) in the skill composition of the labour force, with higher skills attracting FDI; and migrant networks helping investors overcome institutional or informational barriers. While argued in respect of emigration, reverse arguments provide a logical explanation for immigration increasing host country FDI. Empirical testing using US data finds a 1 percent increase in the migrant stock increases FDI flows into the origin country by 0.2 percent for unskilled migrants and 0.4 percent for high-skilled migrants.

A positive relationship from emigration to FDI of around this elasticity has since been found using a variety of different methodological approaches and samples. Results capture developed host countries (Dolman 2008; Leblang 2010; Javorcik et al. 2011; Nijkamp, Gheasi, and Rietveld 2011; Flisi and Murat 2011; De Simone and Manchin 2012; Lücke and Stöhr 2018; A.-M. Mayda et al. 2022), the Asian diaspora (with higher average elasticities; Gao 2003; Tong 2005; Jean, Tan, and Sinkovics 2011; A. Anwar and Mughal 2013; Bui 2019), prominent

migration corridors (Docquier and Lodigiani 2010; Garas, Lapatinas, and Poullos 2016) and long-term ancestral links (Buchardi, Chaney, and Hassan 2019).

Some such studies also test the relationship for immigrants, producing results of a similar (Nijkamp, Gheasi, and Rietveld 2011) or greater magnitude (Flisi and Murat 2011). Gheasi, Nijkamp and Rietveld (2013) find a positive relationship for higher-educated migrants only. Tomohara (2017) finds a negative short-term relationship between bilateral immigration and FDI inflows that is likely particular to his Japanese sample.

Beyond FDI flows, evidence also suggests migrants increase the likelihood of firm acquisitions (Etzo and Takaoka 2018; Chan and Zheng 2022) and entry (Foad 2012) by investors into the migrants' home country. Same-nationality immigrants also influence investment location choices and survival probabilities, especially for first-time investors (Hernandez 2014).

More recent empirical studies have sought to explore the specific mechanisms through which migration increases FDI. These identify information alleviation (especially by skilled migrants in culturally distant countries and for (riskier) investments; Kugler, Levintal, and Rapoport 2018), reducing cultural barriers (Fiorini et al. 2018), personal contacts (Haelg 2022) and the reshaping of host country institutions (Shukla and Cantwell 2018) as key.

Migration policy and FDI links have been little explored. A rare natural experiment exploring migration policy liberalisation finds labour demand increases faster than labour supply due to the investment (including foreign) response (Beerli et al. 2021). The anticipated, phased, and permanent inflow of high-skilled workers relieved supply constraints, prompting firm expansion, increased productivity and research and development activity. Similarly, expanding labour market flexibility through immigration policy relaxation is associated with both faster long- and short-term FDI growth (Shin 2020).

FDI → Migration

While less studied, the reverse relationship is also supported by logic and evidence. The transfer of employees across borders by MNEs provides one direct avenue, while the activity growth and linkage effects of investment influence migration incentives. However, the literature here too shows greater interest in emigration dissuasion or promotion.

Most studies find that FDI reduces incentives to emigrate by more than it facilitates direct (within-firm) opportunities. Aroca and Maloney (2005) find a doubling of FDI into a Mexican state associated with a 1.5–2 percent reduction in emigration, while Wang, Wong and Granato (2013) find the largest deterrent effect for the tertiary-educated (a 1 percent increase in the stock of FDI as a share of GDP decreasing emigration by 0.2 percent). Other studies provide similar overall evidence (D'Agosto, Solferino, and Tria 2013), suggest the relationship is positive (negative) for same (third) country FDI (Xu and Sylwester 2016), and strengthens with time since investment (Sanderson and Kentor, 2008).

Turning to immigration, more capital-intensive firms are positively associated with foreign skilled employment, as MNEs transfer skilled workers to compensate for host labour market deficiencies (Hoxhaj, Marchal, and Seric 2016). Evidence from BRICS countries finds a 1 percent increase in FDI increases immigration by 0.13 percent (Manzoor, Safdar, and Mahmood 2021), while an extra US\$1 million in FDI increases immigration between OECD country pairs by about 60 migrants and non-OECD partners by about 1000 (Bang and

MacDermott 2019). There is also descriptive evidence of Chinese SOEs promoting, facilitating and supporting expatriate migration for overseas investments in Africa (Yang 2021).

Concurrent estimates

Perhaps reflecting an empirically-heavy literature based on preconceived expectations of relationship direction, there are few prior studies exploring bidirectional causality. The first of two important exceptions estimates a vector autoregression (VAR) model of immigration, FDI and imports, finding immigration explains a significant share of FDI variance (26 percent in the first year and almost 9 percent after 10 years), whereas FDI explains a much smaller share of immigration variance (C.-U. Kim 2006). Analysis later in this thesis suggests an alternative methodology accounting for long-term cointegration produces more robust estimates.

Buch, Kleinert and Toubal (2006) provide a rare examination of the determinants of concurrent net inflows of foreign capital and labour; specifically factor heterogeneity, technological differences and agglomeration effects. They test for agglomeration effects using German state data and find agglomeration of foreign capital and labour from the same and different origin countries. Extending this analysis to other single and multi-country contexts and orienting it within a development policy context — as this thesis does — would seem particularly valuable.

Micro/firm evidence

Understanding the relationship between migrants and firms supports a more holistic approach to addressing this thesis' objective of exploring factor flow relationships, policies and economic development at the country-level. The preceding analysis highlights macro gaps that supplementary micro evidence could usefully fill.

Leading scholars argue that expatriate deployment by MNEs is an intrinsic and persistent global business strategy, with the international migration of skilled managerial and technical staff part of a lasting approach to circulating knowledge and expertise, maintaining consistency across the global business, meeting client needs, building cultural capital and contributing to the career development of future leaders (Beaverstock and Boardwell 2000; Meinen et al. 2022). However, evidence regarding the persistence of expatriate deployment varies, with some MNEs exhibiting increasing (Delios and Bjorkman 2000; Gong 2003) and decreasing (Salt 1992; Cho 2018) patterns depending on firm needs and host country labour market developments. Policies may be biasing such patterns from MNE preferences, with expatriate deployment counterintuitively higher in more sophisticated countries (Drysdale 1999) and the ease of employing skilled workers across countries positively associated with FDI inflows (De Smet 2013; Kusek and Silva 2018).

The micro relationship may also be bidirectional, as immigrant employees directly stimulate within-firm FDI (Foley and Kerr 2013). Skilled immigrant employees appear to increase offshoring volumes (not decisions; Hatzigeorgiou et al. 2016), alleviate financial constraints especially for smaller, marginal projects (Cuadros, Martín-Montaner and Paniagua 2016) and reduce communications costs between headquarters and affiliates (Cuadros, Martín-Montaner, and Paniagua 2019). Cuadros, Martín-Montaner, and Paniagua (2019) also show that skilled migrants influence FDI decisions and volumes through lowering labour search costs. This highlights an important difference between new investors — whose activities

should be more skill-intensive as the host country develops — and established investors (for which access to lower skilled workers keeps labour costs down).

Silicon Valley is a living example of migration and investment interconnectivity and its productive benefits. Skilled immigrants (primarily from India and China) contribute substantially to its dynamism and global reach, creating innovative firms that generate jobs and higher incomes for the US economy, while contributing to brain and capital circulation supporting the development of sending economies. Vibrant transnational ethnic networks facilitate access to capital, future waves of skilled labour, mentorship, technical and market information (Saxenian 1999). Advances in communications technology and information diffusion support a new development model in which brain circulation allows more countries to participate in technology creation (Saxenian 2007).

Less mutually advantageous ecosystems can also result at the intersection of international labour and capital. Bastide (2021) argues Malaysia's global investment competitiveness is derived from 'migration rent', whereby the joint relocation of foreign capital and low-skilled labour allows MNEs to extract exploitation rents under migration governance that is permissive and/or deficient. Bastide's arguments perhaps overstate policymaker's conscious culpability and overlook how exploitable labour can deter certain investors (as later chapters discuss), and whether such competitiveness is economically (and socially) optimal requires deeper analysis. Power asymmetries supporting the 'commercialisation' of migration are nevertheless an important consideration relating factor flow interconnectivity to economic development (Krifors 2021).

The relationship between immigration and offshoring also demonstrates migration and FDI interlinkages. Immigration overall appears to disincentivise offshoring by increasing the quantity and quality of labour at home, but it also creates linkages and familiarity with the immigrant's home country that increase offshoring directly (Ottaviano, Peri, and Wright 2018; Olney and Pozzoli 2021). Both immigration and offshoring also have demonstrable productivity effects that benefit native employment in even the most exposed industries (Ottaviano, Peri, and Wright 2013), and thus can be complementary and beneficial forces.

Migration, FDI and development

This thesis cannot draw upon an existing theoretical framework relating a positive relationship between migration and FDI and development since none exist. Tangentially relevant approaches include Michael's (2006) analysis of the welfare outcomes of skill-differentiated migrant labour dependent upon capital mobility assumptions, Barry's (2002) small economy model with free capital and labour inflows that suggests policies increasing FDI — including those that concurrently raise immigration — improve native workers' welfare, and another model showing that factor flow interactivity better explains differences in country income levels than autonomous factor accumulation (Klenow and Rodríguez-Clare, 2005). A further model suggests the inflow of skilled labour unambiguously increases foreign investment, whereas the investment impact of unskilled inflows is ambiguous, but it makes simplifying assumptions that negate its broader validity (S. Anwar 2008)

The wider globalisation literature is of tangential relevance — illustrating how trade and factor flows can deliver global and national welfare gains but distributional concerns — and therefore will not be detailed here (Booth 2004; Jaumotte, Lall, and Papageorgiou 2013; M. C.

Dao et al. 2017; Stiglitz 2017; Rodrik 2018). Separate migration and FDI links to development are captured later in the chapter.

FDI determinants

Understanding the concurrent drivers of migration and FDI benefits from exploring the far richer literature on individual determinants. Significant study for over 60 years has identified many FDI determinants of varying importance and several theories explaining international investment decisions. Determinants interact and operate differently over time and geography, and the theories and factors derived from oft-studied countries are criticised for not explaining FDI from emerging economies (where different explanations like strategic-asset seeking behaviour, diaspora networks and lesser aversion to poor institutional environments may matter more; Banga 2007; J. U. Kim and Aguilera 2016; Pham and Wongsurawat 2020). Overarching models typically exclude ideas like global cities and clustering, identified as relevant earlier in the chapter. The literature nonetheless identifies contextual influences on FDI competitiveness of importance to exploring concurrent factor flow determinants in later chapters. Several have clear migration links, such as human capital, institutions, labour markets (including wage costs), networks, cultural proximity, and information access, while others are relevant factors (controls) for empirical analysis.

Seminal FDI theories advance the importance of firm, location and internalisation advantages alongside a broad suite of policy influences (Nayak and Choudhury 2014). Hymer's influential thesis (1960) argues FDI is motivated by a desire to and to profit from control — to maintain oversight of productive assets or remove competition to fully exploit firm advantages (broadly conceived, including technology, managerial and organisational superiority, scale economies, lower supply costs, branding etc). Hymer highlights how national firms' deeper understanding of culture, markets, politics and laws represents a disadvantage that firms operating abroad must overcome; something migrants could help with.

Building upon Hymer and Vernon (1966) — who relates production location to the product life cycle — Dunning's influential eclectic approach (or OLI framework) combines the influences of factor endowments (locational advantages), firm competitiveness (ownership advantages) and control (internalisation advantages; Dunning, 1976). Firms optimise internalisation approaches across international markets based on available production factors (tangible and intangible), prevailing market conditions and government policies. Dunning (2003) later summarises the various economic, institutional and proximity push and pull factors that contribute to destination choice.

Before exploring empirical assessments of such factors, two distinct investment patterns have emerged in practice: horizontal and vertical FDI. Horizontal FDI involves production replication internationally with some guidance from headquarters, motivated by benefits of proximity to consumers, whereas vertical FDI integrates distinct activities across countries into a functioning whole, motivated by productivity differences for individual production stages or inputs (Davies and Markusen 2021). Broadly speaking, vertical best fits investment from developed into developing countries whereas horizontal matches investments in countries at a similar development level.

An extraordinary number of empirical studies examine FDI determinants, with a selection of the most frequently cited, unique and consolidating contributions summarised here. Early studies advance a range of different determinants, including FDI as a geographical risk

minimisation strategy (Flamm 1984), real GNP per capita and its growth, inflation, balance of payments deficit, wage cost, skilled workforce, political instability and aid (Schneider and Frey 1985), agglomeration benefits, market size and lower labour costs (but not corporate tax rates or trade openness; Wheeler and Mody 1992), and a deteriorating trade balance (which prompts FDI policy liberalisation; Tsai 1994). Market size was seen as less applicable in Asia however, with export not domestic demand (together with wage costs) influential for Asia's export-orient economies (Lucas 1993).

Further studies have identified individual determinants of increased FDI, including a lower corporate tax rate (De Mooij and Ederveen 2003), infrastructure development (Fung, Garcia-Herrero, and Iizaka 2005; Forte and Neves 2021), transport network (shipping, rail and flight) deepening (M. X. Chen and Lin 2020), and cultural proximity between countries (White 2016; Fiorini et al. 2021). Business surveys also provide important insights, with Japanese evidence suggesting larger firms are more likely to invest abroad, but among similar sized firms R&D intensity reduces FDI (Dasgupta, Mody, and Sinha 1996). Prior experience in the country and the investment intentions of competitors also increase future investment plans (Kinoshita and Mody 2001), as do productivity advantages over exporting and domestic firms (Helpman, Melitz, and Yeaple 2004). Firms whose profitability depends on knowledge capital more than physical capital preference FDI over outsourcing, as ownership becomes essential to intellectual property protection (Y. Chen, Horstmann, and Markusen 2012).

Overseas investment approaches by small firms appear to differ from large competitors, with the building of strategic foreign networks in host countries essential for SMEs (H. Chen and Chen 1998). FDI determinants also appear to vary by sector, with labour market flexibility and financial depth attracting manufacturing FDI and judicial independence and infrastructure engendering services FDI into developing countries (Yu and Walsh 2010). Determinants may also vary by investor country and reflect neighbouring investment environments not just the host country's (Nguyen 2019; Lemi, Liu, and Wright 2021).

Human capital and skills are worth specific mention considering the intersecting literature. Human capital appears to be an increasingly critical FDI determinant for more capital-intensive and higher technology goods and services (Gittens and Pilgrim 2013). Various measures of human capital (including secondary school enrolment, secondary and tertiary educated share of the labour force; Noorbakhsh, Paloni and Youssef (2001) are positively related to FDI and advanced skills appear to be a stronger determinant than resource and labour abundance (Gómez, Oinas, and Wall 2022). The relationship between skill availability and FDI may not be strictly linear, with investors avoiding countries with extremely scarce skilled labour — a deficit migration could alleviate faster than education (K. H. Zhang and Markusen 1999). Miyamoto (2003) considers this a virtuous cycle that sees more educated developing countries benefit from more FDI, with MNEs in turn boosting employee upskilling more than local firms. Large skills differentials encourage vertical FDI while skills similarities support horizontal FDI (Nguyen and Cieřlik 2021). Addressing skills deficits for investors through immigration is most commonly envisaged as via expatriate transfers, yet this ignores the proliferation of technical migrants operating independently in international labour markets and highly qualified migrants arriving through non-economic (refugees, family) channels (Petthe 2007).

Likewise labour market policies influence labour quality, availability and costs for foreign investors — with migration policies an important subset. Overall labour market flexibility and

specific policies including working hour rigidity, firing costs, wage flexibility and difficulty of hiring have all been found to influence FDI (Javorcik and Spatareanu 2005; Mogab, Kishan, and Vacaflares 2013). The relationship differs for developing and developed countries (both as investors and host countries), for investors servicing host markets or exports, and is a function of relative differences between source and destination policies (Dewit, Görg, and Montagna 2003; Norbäck, Skedinger, and Duanmu 2021; Gómez, Oinas, and Wall 2022). A diminishing relationship between labour market flexibility and FDI attraction with development suggests countries need not engage in a permanent race to eliminate employment protections (Ardiyono and Patunru 2022). Indeed, there is a balance between stronger regulations raising costs for investors and higher standards signalling a more productive labour force, although MNEs can also be well positioned to avoid regulatory constraints (Navaretti, Checchi, and Turrini 2002; Parcon 2008). Such standards and regulations equally affect the quantity and quality of migrants preferencing a country.

Institutions are also important FDI determinant with migration and development linkages. Good governance imposes fewer costs on firms, reduces uncertainty and can raise productivity. Empirical studies find facilitative institutional variables — including property rights protections, contract enforcement, rule of law, competition, and good governance — exhibit a positive relationship with FDI (Gastanaga, Nugent, and Pashamova 1998; Globerman and Shapiro 2002; Bénassy-Quéré, Coupet, and Mayer 2005; Du, Lu, and Tao 2011; Cieřlik and Goczek 2018; Azzimonti 2018; Paul and Jadhav 2020; Mariotti and Marzano 2021). The effect of institutional quality appears to be increasing with development, influencing investment into developed markets but less convincingly evidenced for developing countries (where minimum institutional requirements may not be met; Peres, Ameer, and Xu 2018; Sabir, Rafique, and Abbas 2019).

Various summary papers have sought to prioritise and eliminate possible determinants. In addition to human capital and institutions, they identify market size (GDP), proximity measures (distance, common language and colonial relationship), human capital (skills), trade openness, infrastructure, agglomeration and clustering, natural resources, government taxes and expenditure, stability and prior investment (Blonigen and Piger 2014; Chanegriha, Stewart, and Tsoukis 2017; Nielsen, Asmussen, and Weatherall 2017) among the strongest evidenced.

So while there is no single set of determinants, the wider FDI literature identifies (or reinforces) motivations and determinants of immediate relevance to this thesis. These include human capital and institutions, labour markets, market size, trade openness, cultural proximity, networks and clustering.

FDI policies

This thesis is concerned with how FDI policies might influence migration directly and indirectly via influence on FDI. Direct effects have not previously been studied, so this section is limited to FDI policy influence on investment decisions. While convincing evidence is scarce, FDI policy restrictions appear to lower FDI inflows, raising the potential for indirect effects on migration flows. Overall restrictions and equity limits are most convincingly FDI reducing, whereas the effects of incentives, screening, bilateral agreements and capital controls are disputed. Later chapters deploy novel policy indicators to test direct relationships and several such policy types further. Understanding conceptual relationships between FDI

policies and inflows also supports development of the analytical framework in Chapter 3, while exploring best practice policies informs recommendations for reforms supporting development in the Asia-Pacific in Chapter 8.

Best practice policies to encourage FDI broadly incorporate sound macroeconomic management and a conducive investment environment. Investment laws and guidelines should provide predictability around entry and operating rules and be consistent across instruments (national/sub-national policies and international agreement commitments; Sauvant 2021). Leading international organisations recommend transparent and predictable policies that provide non-discriminatory treatment, minimise barriers and constraints to capital mobility, protect physical and intellectual property rights, support contract enforcement and dispute settlement, and are supplemented by and reviewed through active engagement with investors (OECD 2015; UNCTAD 2011). Competitiveness goes beyond investment-specific measures to include the tax, competition, infrastructure, trade, education, finance, governance and environmental policies contributing to the investment environment. Benefits from FDI come from maximising absorptive capacity and spillover linkages to domestic firms, not through market-distorting interventions mandating joint ventures and knowledge-sharing (Tavares and Young 2010; UNCTAD 2011).

FDI policies globally are far removed from this idealised prescription, with policies restricting foreign participation in certain sectors persisting to varying degrees across countries. Ambiguous and secretive approval mechanisms have gained popularity amid a global trend towards securitisation, with governments retaining powers to prohibit or apply conditions to certain investments — usually those of high value, from emerging markets or involving state enterprises (Cuervo-Cazurra 2018; Lai 2021; OECD 2022).

The effect of investment review mechanisms is nonetheless a polarising matter. Such policies count as barriers on the OECD's FDI Regulatory Restrictiveness Index but are staunchly defended by proponents (including Australia) that believe they bolster public support for FDI. A middle ground perspective suggests investment review mechanisms that are predictable, timely, confidential, non-discriminatory, cost effective, and strictly limited to security may not represent a deterrent and may even attract investors from countries in which official approval is the norm (Marchick and Slaughter 2008). Empirical evidence deploying the OECD's index shows countries with a screening mechanism attract less FDI, though the deterrence effect is about one-third that of equity restrictions and does not distinguish between screening characteristics (Mistura and Roulet 2019). Another study finds no negative effect of screening, whereas restrictions on equity participation, foreign personnel and 'other restrictions' each significantly reduce flows (Gregori and Nardo 2021).

Another contested policy area is investment incentives such as tax breaks, subsidies, concessional loans and land. Incentives proliferated during the 1990s and remain a pervasive (and expensive) aspect of most countries' investment regimes. Proponents argue the existence of spillovers (technology/productivity), competition among countries, and their being simpler than eliminating other barriers supports their use (Kokko 2003). Evidence of their effectiveness is mixed; they may help improve competitiveness but are less efficient than alternative investment environment improvements (Rajan 2004; T. H. Moran 1999; Haskel, Pereira, and Slaughter 2007).

Policies targeting 'quality' or 'desirable' investment are also contentious. Desirability typically surrounds governments wanting new or sector-specific investments, towards which

government interventions typically distort industrial allocation by picking winners (Enderwick 2005). Eminent scholars nonetheless increasingly emphasise attracting ‘quality’ FDI and consider industrial development policy essential to securing FDI benefits for domestic firms (Narula and Dunning 2010). Greenfield investment preferencing has far less weight, as evidence suggests spillovers are more likely from vertically-integrated firms and production networks than new market entrants (Blalock and Gertler 2008). The investment policy landscape is nonetheless increasingly dominated by resilience and national security narratives influencing supply chain reorientation, alongside an industry policy renaissance (Aiginger and Rodrik 2020; J. X. Zhan 2021; Juhász, Lane, and Rodrik 2023).

Capital controls are another prominent policy area experiencing a shifting narrative. Once opposed by the International Monetary Fund (IMF) as impediments to welfare-enhancing capital flows, they have stepwise become acceptable to counter macroeconomic shocks (Korinek, Loungani, and Ostry 2022). Scholars too see capital controls as increasingly normalised means to address externalities, cyclicity and international spillovers (Erten, Korinek, and Antonio Ocampo 2021; J. S. Davis and Devereux 2022). Capital controls should nonetheless be used sparingly and in cooperation with other countries not excessively deployed to restrict FDI.

A final contentious area providing context for considering policy recommendations is the impact of investment agreements. Evidence of treaty benefits is mixed but mostly positive, albeit with dramatically varying effect magnitudes that require cautious interpretation (Falvey and Foster-McGregor 2018; Frenkel and Walter 2019; Kox and Rojas-Romagosa 2020).

Empirical evidence suggests that FDI policy restrictions do reduce inflows. The most compelling studies deploying the OECD’s FDI Regulatory Restrictiveness Index or similar find that restrictions reduce FDI stocks with an elasticity of between 0.1 and 1.5 (highest for the services sector and for equity restrictions and in long-run estimations; Ghosh, Syntetos, and Wang 2012; Mistura and Roulet 2019; Gregori and Nardo 2021). Modelled simulations of Australia increasing its FDI restrictiveness suggest restrictions lower FDI inflows, GDP and wages (Productivity Commission 2020; Gretton 2022).

FDI and development

The literature at the intersection of migration and FDI has focused on factor flow linkages without substantively exploring onward effects on economic development or activity. It adopts an implicit position that FDI supports development in the recipient country and thus concurrent migrant inflows are beneficial where they increase FDI. FDI can accelerate economic development, but such an outcome is not predestined. This section details empirical evidence that mostly suggests a positive relationship but with gains conditional on the characteristics of the investment and the host country’s investment environment. Environments supporting absorptive capacity and domestic firm interlinkages extract greater development benefits. Host country policies thus appear important to harnessing FDI and migration for development. FDI spillovers likewise depend on the transfer of superior technologies and processes, including via the embodied knowledge of MNE employees. The paramount importance of worker mobility, combined with migrants being necessarily more mobile, suggests migration supports the generation of FDI spillovers. Such connections support this thesis’ ambition of linking migration, FDI and development conceptually and empirically.

Arguments surrounding FDI's economic impacts coalesce around two polarised perspectives. The dominant 'modernisation' perspective (e.g. Rostow 1980; Jackman 1982; Firebaugh and Beck 1994) argues FDI promotes economic growth by providing financial resources, industry creation, export competitiveness, technology transfer, human capital development and global integration. The less popular 'dependency' perspective (e.g. Kaplan 1974; Bornschier and Hoby 1981; Kentor 1998; Tausch 2010) argues peripheral countries develop subservience to global capital and its monopolistic distortions.

Dependency scholarship is not documented further, as the evidence supporting it lacks the widespread support and robustness of modernisation scholarship, which has been more persuasive and influential to thought and policy. Indeed, Narula and Driffield (2012) once described the global competition for FDI as "border[ing] on the obsessive", with potential host governments seeing FDI "as an elixir". Yet they describe the evidence underpinning the euphoria as far from settled empirically, noting the inherent challenges isolating investor-specific contributions from host country endowments and competitiveness. They sought not to dispel optimism towards the FDI-development relationship but highlight the need to better distinguish ownership advantages, evidence direct technology transfer, account for investor motivations and recognise host country absorptive capacity variability.

Important to this thesis' analytical framing, the FDI and economic development relationship is stylistically depicted by the Investment Development Path (IDP; Narula and Dunning 2010). The IDP depicts inward FDI as increasing rapidly in early development stages then plateauing, which combined with outward FDI increasing exponentially results in net inwards investment until late stages of development. It is a guide rather than illustrative of a causal relationship between FDI and development. Instead, Narula and Dunning argue MNEs' most significant development contribution is via positive externalities, which only accrue when domestic firms have the absorptive capacity and a country's broader capacity-building and geographic integration supports utilisation. Movement along the IDP is not predestined and recent evidence suggests economic uncertainty presents an impediment (Lagos and Wang 2022).

Borensztein, De Gregorio, and Lee's (1998) seminal study finds that FDI into developing countries contributes more to economic growth than domestic investment; facilitating technology transfer but only in countries with sufficient human capital levels to support absorption. Other notable studies likewise link FDI to higher growth and productivity with interaction effects with schooling and technology (De Soysa and Oneal 1999; X. Li and Liu 2005), though such evidence is contested (Carkovic and Levine 2005). A summary of 880 estimates from 108 published studies, reports a 43:40:17 split between those finding a positive, insignificant and negative relationship from FDI to economic growth (Iamsiraroj and Ulubaşoğlu (2015).

Arguably more important than GDP growth is whether FDI generates positive productivity spillovers; from firm-specific technological, marketing or organisational advantages, enhanced competition, scale benefits, and generating producer services demand (Blomström and Kokko 1998). Empirical studies link increased MNE presence or FDI with higher domestic firm entry, higher total factor productivity and increased patent citations (Görg and Strobl 2002; Haskel, Pereira, and Slaughter 2007; Jiang, Liang, and Pan 2022). Firm-level evidence finds majority foreign ownership, contractual linkages to MNEs, MNE demonstration effects, and even the threat of impending foreign competition can raise firm productivity, with skilled

migration among the suggested conduits for harnessing spillovers (Blalock and Gertler 2008; Dogan, Wong, and Yap 2017; Reyes 2017; Bao and Chen 2018; Fons-Rosen et al. 2021; M. Zhang and Yang 2022). Around a quarter of the 47 studies on FDI and productivity spillovers summarised by Harrison and Rodríguez-Clare (2010) do not identify a positive effect, suggesting majority but not universal evidentiary support.

Countries participating in GVCs, consistent with a higher FDI-to-GDP ratio (Adarov and Stehrer 2021), have greater opportunities for technology absorption. GVC participation increases the probability of adopting advanced digital technologies (Delera et al. 2022), industrial upgrading (especially foreign value added contributing to domestic exports; Tian, Dietzenbacher, and Jong-A-Pin 2022), and exports converging to the global technology frontier (Ndubuisi and Owusu 2021). Positive spillovers appear largest through supply chain investments (vertical FDI) and investments to serve similar development-level markets but negative where MNEs invest as competitors in forward markets (Fons-Rosen et al. 2017; Barge-Gil, López, and Núñez-Sánchez 2020).

Achieving TFP and growth gains from capital inflows appears to require a minimum institutional quality (Arya, Banerjee, and Cavoli 2019). Industrial capabilities are diminishing in importance with increased global production sharing (Yeats 1998), as trade and vertical FDI enable less developed countries to specialise in producing individual components rather than whole products (Thomson and Athukorala 2020). Though evidence suggests only one in four countries has succeeded in upgrading via global production sharing (Bernhardt and Pollak 2015).

Foreign investor needs can also support development by transferring or creating local demand for new skills or jobs. Expatriates are often deployed to promote synthesis between MNE entities and because they embody technological and procedural knowledge. MNE activities raise job quality (and sometimes quantity), labour productivity, training and wages as they compete for native workers and promote a more productive global allocation of labour (Dunning and Lundan 2008; Hale and Xu 2016; Tang and Zhang 2021; Sun and Xie 2022). The skills bias of FDI creates wage premiums for skilled workers, which recent studies in particular have shown are of large magnitude (Feenstra and Hanson 1997; Driffield 2000; Egger, Jahn, and Kornitzky 2020; Setzler and Tintelnot 2021). Globally oriented firms — more common in countries open to FDI — promote skills improvements (Nilsson Hakkala, Heyman, and Sjöholm 2014).

Some countries are considered examples of having extracted development benefits from FDI — including Ireland and Singapore — whereas Japan, Korea and Taiwan relied on foreign knowledge transfer through non-FDI modes (Narula and Dunning, 2010). Other countries, especially in Africa, have seen FDI's productivity potential undermined by broader policies (extracting excessive resource rents, industry entry barriers and trade barriers) and instability that limit investor ambitions (Pavlínek, Domański, and Guzik 2009; Harding and Javorcik 2012; Morris and Staritz 2017; Papaioannou and Dimelis 2019; Chih, Kishan, and Ojede 2022). Critics consequently argue that most MNE activity in developing countries with limited absorptive capacity is limited to supplying domestic markets, bestowing subsidiaries with insufficient mandates to upgrade operations, with higher quality FDI needed to support upgrading and development (Tüselmann and Buzdugan 2016; Buzdugan and Tüselmann 2018).

Adopting a global development lens, the FDI-related phenomenon of GVCs has complex employment effects. GVCs help productively engage abundant low-skilled workers in developing countries, but they also drive automation that may eliminate such employment longer-term (Reijnders, Timmer, and Ye 2021). The combined effect of offshoring, low-skilled immigration and automation is thought to be skill polarisation, with high-skilled workers beneficiaries of both offshoring and automation and immigration encouraging upskilling by reducing low-skilled wages (Mandelman and Zlate 2022). This thesis does not engage further on the emerging implications of automation for factor movements and development (e.g. Acemoglu and Restrepo 2019, 2020, 2022), but notes its relevance to future research.

Migration theories and modelling

Akin to examining FDI scholarship, traversing the migration literature helps better understand the migrant characteristics and contextual factors that influence migration decisions. This further situates migration alongside FDI as a potential development driver and identifies relationships with other (potentially confounding) factors relevant to empirical analysis in later chapters.

As this thesis is principally concerned with economic (labour and investor) migrants and their potential contributions of labour, knowledge and capital to the receiving country, this section gives greatest weight to scholarship with economic ideas and applications. Migration is nonetheless a rich cross-disciplinary subject, with the movement of goods and businesses fundamentally differing from people movement. Theories of migration consequently reflect a range of motivations, environmental factors and disciplinary constructs that are becoming increasingly integrated. Non-economic migrants, such as refugees and accompanying family members, are deprioritised not excluded.

The theoretical literature is vast and largely unsettled, highlighting challenges to capturing and distilling migration conceptually. There is no single leading conception of clear application to the integrated migration, FDI and development framework sought by this thesis. The literature nonetheless offers ideas including a need to integrate micro and macro influences, the centrality of migrants improving their livelihoods to migration events and destination choice, wage differentials as a key pillar alongside relocation costs both financial and psychic, and additional factors including employment opportunities, existing networks, cultural and geographic proximity, development level, policy barriers, institutions, rights, and the social environment. That some of these factors concurrently influence FDI location choice provides the foundation for a framework of dual factor flow determinants advanced in Chapter 3.

Pioneering migration theories conceive of migration drivers broadly as origin and destination (push and pull) factors, intervening obstacles (distance, laws, dependents) and personal factors (age, resistance to change, networks for destination information; Ravenstein 1885; E. S. Lee 1966). Migration can only occur when the expected or perceived positives arising from migration not only outweigh the negatives but the general inertia of leaving an existing community.

Zelinsky's (1971) Hypothesis of the Mobility Transition links migration to economic (and societal) modernisation. Mobility follows an inverted U-shaped relationship with development, as progress from a traditional to transitional society prompts vast rural-urban migration then inter-urban migration within countries. International circulation of

high-skilled workers and mass migration of the unskilled from developing to developed countries follows (emigration increasing with development). Finally, people movements decline as communications and transport technologies weaken agglomeration benefits and development incentivises staying. Zelinsky's theory offers expectations for migration patterns across the development path applied in Chapter 3.

Somewhat more influentially than in the FDI literature, migration has also been viewed through a dependency lens, including world systems theory (Wallerstein 1974) and the dual labour market hypothesis (Piore 1979). These conceive of migration as subjugated products of capitalist expansion, with the insatiable labour demand of firms facilitating foreign labour movement to do the lower status and unpleasant jobs that domestic workers shun. Piore further argues temporary migration policies are incongruous with migrants' lived experience (building communities and social hierarchies that limit return migration and stimulate further migration among networks).

Migration within the labour economics literature has been and continues to be centred on the existence of an 'immigration market' determining the allocation of people across countries (Borjas 1989; 2014). This simple characterisation differs little from Ravenstein and Lee's conceptions, with individual migrants considering the economic and psychic benefits and costs of alternative destinations given the legal constraints imposed by the sending and receiving countries. A influential variant, the 'new economics of migration' model, has the household not the individual making migration decisions to minimise risk and overcome geographical constraints on relieving relative deprivation (Stark and Bloom 1985). Migration is similarly framed as a capital (produced/physical, human/knowledge, natural/resource, social and cultural) accumulation strategy, with migration opportunities dependent on having sufficient human and social capital (Bebbington 1999).

Fischer, Martin and Straubhaar (1997) offer a more nuanced overarching economic approach, with migration decisions reflecting: (1) perceptions about potential host environments that are periodically reassessed; and (2) a comparison of relative location merits to maximise utility, often approximated by wage differences. They argue sophisticated models drop assumptions that migration is costless and riskless, migrants have homogeneous characteristics and preferences, perfect and costless information is available and all migrants act rationally and individually.

Exclusively economics-based approaches have attracted little support in the wider literature and in practice, as few people migrate despite wage differentials and there is limited wage convergence in the absence of institutional barriers. The contributions of politics (local, national and supranational) and culture matter (Arango 2004), as do migrant networks and the cumulative causation provided by their connections and facilitation (Gurak and Caces 1992; Goss and Lindquist 1995). Leading early integrated theories thus advance multi-level frameworks combining micro, macro and even 'meso' (or linking) influences and the development of location-specific social capital (Massey 1990; Massey et al. 1993; Faist 1997).

Efforts towards a unifying theory have been complicated by shifts in the typology of migrants. Conceptions grounded in permanent movements are challenged by the rise of temporary migration; a phenomenon associated with politically neutralising, dehumanising, economic rationalisation supporting higher migration flows (Dauvergne and Marsden 2011). Temporary migrants usually have lesser rights relating to family, privacy, mobility, association and employment, which institutionalises inequality and encourages cheating by

both migrants (go illegal) and businesses (exploit workers; Parreñas et al. 2019). While ‘temporary’ migration may be illusory (Dustmann and Görlach 2016), its influence on migrant economic behaviour is distinct and requires theoretical adjustments. Expected earnings rather than equal and comprehensive conditions may matter more to temporary migrants, who also have less incentive to invest in host country-specific human capital and greater incentive to remit rather than invest capital. This likely lowers migrants’ contributions to government revenue and labour productivity in the host country and may reduce incentives for firms to maintain or adopt labour-saving production. Both case studies in later chapters explore migrant temporariness and its consequences.

Intellectual migrants likewise command their own theoretical construct and represent a pool of geographically mobile talent of particular importance to global capital. Tertiary graduates and skilled professionals deploy desirable ‘intellectual capital’ — combining human, social and cultural capital — transnationally for career advancement or upward social mobility (W. Li et al. 2021). They often lack the pre-existing familial networks supporting other migrants and are ‘middling’ between cosmopolitan elites and poor unskilled labourers. Closely related is the concept of transience, suggesting migration conceptions must move beyond temporary and permanent to accommodate transnational mobility (Gomes 2021).

Recent attempts at theoretical unification propose push-pull plus frameworks emphasising ‘drivers’. Van Hear, Bakewell, and Long (2018) advocate predisposing, proximate, precipitating and mediating drivers as shaping migration events and contexts; capturing a broad range of incentives both persistent and acute. Carling and Collins (2018) propose the broader ‘aspiration, desire and drivers’ — with aspiration and desire relating to the migrant’s subjective conceptualisation of migration as a life-transforming possibility and ‘drivers’ capturing cross-disciplinary determinants. de Haas (2021) extends this with an aspirations-capabilities framework, a simple summarising statement that migration is ‘a function of aspirations and capabilities to migrate within given sets of perceived geographical opportunity structures.’

Empirical evidence of migration determinants

There is more theoretical than empirical evidence of migration determinants, reflecting a focus on migration impacts rather than causes, difficulty quantifying migration costs, lesser use of statistical techniques in non-economics disciplines and the absence of rigorously estimated global bilateral migration data until recently (Abel 2017). Available evidence identifies central determinants as wage differences, migrant networks, geographical distance, institutional quality, information availability and prior migration experience. Human capital investment opportunities and supportive institutions also increase migration incentives. The literature also highlights identification challenges arising from unquantifiable psychic costs, individual traits, intentions and perceptions. Understanding such determinants helps conceptualise migration and FDI interlinkages.

Data limits meant the earliest gravity estimates for just two destination countries were produced this century (Karemera, Oguledo, and Davis 2000). This and early cross-section evidence find migration is positively related to destination income and negatively related to source country income and geographical distance (Borjas 1987). They also evidence the self-selection of relatively skilled migrants (Roy 1951) into destinations with higher returns to skills (wage inequality; Borjas 1987; Grogger and Hanson 2011). Other early studies also find

geography and income differences matter, while adding evidence of strong network effects (Hatton and Williamson 1994; 2002; Pedersen, Pytlilkova, and Smith 2004; Clark, Hatton, and Williamson 2007). This and further evidence from the first era of mass migration (1820-1913) highlights economic, network and demographic drivers, including the role of foreign capital chasing labour in helping sustain wage differences incentivising migration (O'Rourke and Williamson 1999; Hatton 2021). Bertocchi and Strozzi (2008) add population youthfulness, agricultural share of GDP and indexes of institutional quality (general, political and migration-specific), and Faini and Venturini (2010) advance host country unemployment.

More recent studies have sought to understand such determinants alongside immigration policy changes. Ortega and Peri (2013) find 10 percent greater income per capita at destination (relative to home) is associated with 7.6 percent higher migrant inflows. They also evidence a 6 percent decrease in migrant inflows in the year after migration policy tightening occurs. Mayda (2010) likewise models migration as a function of migrant decisions and host country immigration policy quota, finding income, geography, population youthfulness and policy liberalisation are significant emigration determinants.

Estimates of the median wage premium from relocating, controlling for observable differences (including education, gender and age), highlight the extent of wage differentials and migration costs. These have thrice been estimated in the US\$10,000-15,400 per annum range (Clemens, Montenegro, and Pritchett 2009; 2019; Kennan 2013). Indeed, the implied migration costs from uninhibited migration between Puerto Rico and the US are around US\$225,000, and both proximity and extensive networks would suggest it is a comparatively low-cost migration corridor (Borjas 2014). A high premium is placed on staying.

Migration is also an investment in future earnings, as tremendous recent growth in international student mobility attests (OECD 2021a). Migration can be motivated as a human capital investment (for the self or future children), with high youth mobility reflecting the greater ease and willingness of youth to invest in alternative location-specific human capital (Sjaastad 1962). Such investment increases with length of stay in the host country, supporting superior social integration outcomes and wage convergence (and in turn incentivises staying; Dustmann 1999; Adda, Dustmann, and Görlach 2021).

Institutions have also been recently identified as both a migration push and pull factor. Push factors include inadequate social institutions (social protection, labour market, pension and education policies; Kureková 2013) and corruption (depressing returns to skills; Dimant, Krieger, and Meierrieks 2013). Pull factors include greater rights like dual citizenship accessibility, citizenship by birth, minimum residency and language requirements (Fitzgerald, Leblang, and Teets 2014; Ariu, Docquier, and Squicciarini 2016) as well as economic freedoms like property rights, a sound monetary system and low regulatory impost (Nejad and Young 2016). Baudassé, Bazillier and Issifou's (2018) review identifies direct utility, indirect income and migration cost effects as institutional influences, but notes empirical research must better address identification problems. Studies since then have not convincingly done so, but have continued to find support for institutions as a positive determinant (Arif 2020; Ferwerda and Gest 2021).

More recent studies further demonstrate the prominence of network effects, both close (family and friends) and broad (countrypersons) social networks utilised differentially by migrants with different human capital levels and legal status (McAuliffe 2017; Manchin and Orazbayev 2018; Chuatico and Haan 2022). Related to this is evidence from randomised field experiments

that information (or misinformation) influences migration decisions, with migration probability significantly altered by information sharing among peers and by destination mortality and wage information (M. Shrestha 2020; Tjaden and Dunsch 2021). Information frictions (Bertoli, Moraga, and Guichard 2020), internet access (Grubanov-Boskovic et al. 2021), and mobile phone network usage likewise influence migrants (Hombrados, Ciacci, and Zainudeen 2022).

Migration policies

Much like for FDI policies and migration, there is little consideration of migration policy impacts on FDI directly. This section therefore focuses on evidence of migration policy influence, effectiveness and optimisation with respect to migration flows, and thus its indirect influence on FDI. Reviewing evidence on migration policymaking also supports the formulation of individual country and regional policy reforms in Chapter 8. Among the important lessons is that policies pursued by even relatively successful migrant host countries have suboptimal features and unintended consequences. Optimal policies in developed countries are not easily adapted to developing country contexts. Considering and aligning incentives is particularly important to policy design, especially when responsibilities are delegated to non-state actors. Upskilling and integration policies may be of significant relevance as potential influences on FDI.

Policy influences

To begin, the motivations and influences on states' migration policies provide context for understanding policymaking in practice. Here there is considerable debate and divergence framed around the contributions of actors, ideologies and identities (Meyers 2000).

The most influential conceptions argue liberal democracies have an expansionary bias towards migration supported by various interest groups (including investors) and constraints on public discussion (limited data, racial overtones), and must navigate economic openness amid countervailing security and political forces demanding tighter immigration restrictions (Freeman 1995; Hollifield 2004; Boswell 2007; Ruhs and Martin 2008; Hollifield and Sharpe 2017; Kennedy 2019). Restrictive policies dominate under prevailing threat or nationalistic consciousness, otherwise states balance economic imperatives and human rights. Where such objectives conflict, officials may set strict rules to appease voters but limit enforcement resources to covertly undermine adherence (Facchini and Testa 2021). Migrant rights and enforcement raise costs for employers and governments and are often limited for abundant and vulnerable unskilled labour.

Alternative conceptions incorporate the Global South, characterising migration regimes as 'nationalising, developmental or neoliberal' — respectively focused on preserving population homogeneity, using emigration to accrue remittances and relieve unemployment pressures, and maximising the extraction of economic rents (Adamson and Tsourapas 2020; S. Lee 2021). Both the Australian and Malaysian case studies in this thesis fit the neoliberal classification, extracting economic efficiency gains by restricting migrant access to social rights (Bastide 2021; Clibborn and Wright 2022).

Scholars disagree on whether immigration policies are converging or diverging globally. Advocates of the convergence hypothesis (Cornelius and Tsuda 2004) highlight the increasing permissibility of dual citizenship (Vink et al. 2019), competition for 'desirable' migrants (including offering citizenship by investment or purchase; Surak 2021) and hardening of

border controls. Critics point to the fragmentation of global migration governance with developed countries largely resisting efforts to limit state sovereignty and labour sending developing countries and non-government organisations advancing a rights-based approach (Lebon-McGregor 2020; Kainz and Betts 2021). Regional governance is no less fragmented (Lavenex and Piper 2022; Piper and Rother 2022).

The intersection of migration policies and public discourse is associated with differential liberalisation of high-skilled immigration policies (Kolbe 2021), with tiered rights for locals, skilled and low-skilled migrants (S. Zhan, Huang, and Zhou 2022), and distinct ideological framing for refugee and ordinary migration policies (Hatton 2020). It has also seen securitisation become a dominant discourse following shocks including 9/11 and the COVID-19 pandemic (Mixed Migration Centre 2019; Yayboke 2021; Léonard and Kaunert 2022; Bello 2022; McConnon 2022). Artificial intelligence is an emerging influence with wide ranging applications that could either ease or harshen migration policies and public attitudes depending on its deployment (Beduschi 2021).

Such influences may not have been explicitly linked to FDI but have clear parallels, contributing to the exploration of migration policy influence on FDI in later chapters.

Policy effectiveness

Divergence with stated outcomes

Debate regarding migration policy effectiveness is as contentious as concerning policy influence. Stark divides between stated policy goals and migration outcomes globally underpin the seminal ‘gap hypothesis’, which explains the divide as reflecting flawed policies (including temporary migrant schemes that incentivise overstaying and employer dependence, ineffective border enforcement and weak internal enforcement), structural embedding of migrant labour demand, political constraints (interest group capture, liberal democratic institutions and international agreement terms) and ambiguous policy intentions (Cornelius and Tsuda 2004). Bureaucracies can also create substantial divergence between policy statement and implementation, as Canadian experience evidences (Elrick 2022). Regardless of whether ineffectiveness is the correct characterisation, unintended consequences appear common including substitution between countries, migrant categories (economic to family or illegal), policy-induced surges and interruptions to circular flows (de Haas, Czaika, Flahaux, Mahendra, Natter, Vezzoli, et al. 2018).

Indicators of policy impact

Developing policy indicators is central to the analysis in Chapters 6 to 8, with existing indicators limited but insightful. Beine et al.’s (2016) early International Migration Law and Policy Analysis (IMPALA) database maps entry and citizenship acquisition policies by migrant type (e.g. family, economic, humanitarian) across 26 OECD countries. Helbling and Leblang’s (2019) subsequent Immigration Policies in Comparison (IMPIC) dataset (33 OECD countries between 1980 and 2010) was deployed empirically and found that more restrictive policies reduce migration flows conditional on consequent unemployment and information dissemination through migrant networks. Both constraints on arriving and rights post-arrival affect migration flows, with the former demonstrating larger effects.

The Determinants of International Migration (DEMIG) database (de Haas, Czaika, Flahaux, Mahendra, Natter, Vezzoli, et al. 2018) provides a detailed account of historical policies for 45

countries between 1945 and 2013. Associated analysis identifies four ways migration policies impact flows: (1) spatial substitution or the diversion of migrants to another destination; (2) categorical substitution or switching, either to an alternative visa or illegality; (3) inter-temporal substitution, where migration events are brought forward by future policy tightening; and (4) reverse flow substitution where home country restrictions impede return migration.

Czaika and Parsons (2017) also deploy a simple indicator of high-skilled immigration policies for OECD countries (combining entry policies, post-entry rights and bilateral agreements), with this indicator strongly influencing migration flows. Points-based systems (supply driven) and pathways to permanent residency rights are key determinants of high-skilled migration, whereas job offer requirements (demand driven), shortage lists and double taxation agreements are major deterrents. Points-based systems also appear to upskill the migrant intake, whereas permanent residency rights attract both unskilled and high-skilled workers.

Several other indicators were developed recently but have not been fulsomely deployed empirically (e.g. Pasetti and Conte 2021; Schmid 2021). There remain significant gaps in the geographical and thematic coverage of indicators and construction biases that limit their effectiveness, with plentiful opportunities for further development and empirical application (Solano and Huddleston 2021).

Other empirical and survey evidence

Survey evidence — mostly from asylum-seekers — suggests adverse policies encourage transit migrants to move elsewhere, while favourable policies (acceptance of asylum-seekers, good treatment, citizenship rights, social welfare, health, democratic freedoms) attract migrants to onward destinations (Kuschminder and Koser 2017). Migration policies may nonetheless be a secondary influence on destination choice, including because migrants are ill-informed about actual settings (Crawley and Hagen-Zanker 2018).

Among individual policies, stricter border enforcement appears to reduce illegal entry but can create perverse outcomes (see section below; Lessem 2018; Feigenberg 2020; Bazzi et al. 2021), immigrant selectivity (such as points-based systems) improves migrant economic integration but is less influential than self-selection (Clarke, Ferrer, and Skuterud 2019), anti-discrimination measures and labour market flexibility support migrant employment attainment (Platt, Polavieja, and Radl 2022), policy tightening around education, language and visa charges dampens naturalisation rates among (already marginalised) households (Hou and Picot 2021), and attaining citizenship improves the employment and self-employment prospects of migrants (Fellini and Guetto 2022).

Perverse outcomes

Poorly designed, implemented or enforced migration policies have unintended consequences. Border tightening incentivises the professionalisation and diversification of illegal migration and smuggling by disrupting legitimate people, financial and goods flows (Triandafyllidou 2018), and may lack sophistication in practice (Vrăbiescu 2022). Reducing the likelihood, affordability or timeliness of migrating legally similarly increases the relative net benefits of migrating illegally (Sarma 2021), with empirical evidence suggesting large effects (Czaika and Hobolth 2016). Both case studies in this thesis exemplify such challenges, including Australia

in the 1970s (Grassby 1974) and Malaysia's perpetual struggles with irregular migration (e.g. Chin 2002; H.-A. Lee and Leng 2018).

Employer sponsorship policies that aim to match migrants with labour market needs can perversely result in job lock or (in extreme cases) modern slavery, even for less vulnerable skilled migrants (X. Wang 2021). Temporary visas with limited rights lower incentives for both migrants and businesses to invest in skills development (Jacobs 2022). Outsourcing migration regulatory functions to or vesting significant power in non-government entities dilutes responsibility and creates opportunities for abuse (López-Sala and Godenau 2022) and labour standards diminution (Devadason 2020). Regulatory inadequacies create space for agents and other migration facilitators to operate in ways that significantly raise risks and costs for migrants (Nixon 2020; Weeraratne 2021).

Increasingly frequent policy changes, temporariness, demonisation and inconsistency are also contributing to migrant exploitation and more hostile attitudes, creating doubts surrounding concurrent attempts to vilify some migrants and welcome others (Hayakawa 2020; Vitus and Jarlby 2022). Inconsistency between migration policies also diminishes outcomes. For example, selection criteria may raise intake human capital but integration barriers can result in occupational downgrading (Lessem and Sanders 2020; Tani 2020; Brücker et al. 2021). Lu and Hou (2020) argue Canada's points system results in an overeducated migrant intake relative to its labour market needs, and a zero-migration counterfactual simulation suggests skills biased policies are suppressing Australian skilled wages (Di Giovanni, Levchenko, and Ortega 2014).

Multiculturalism policies, while laudable, have produced underwhelming results in tackling anti-foreigner sentiment (Bartram and Jarochova 2022). Meanwhile a narrowing of rights differences between long-term residents and citizens has reduced naturalisation rates, with insecure illegal entrants more likely to naturalise than secure long-term residents (Cheong 2021; Pan 2021).

Summary

There are considerable opportunities for evidence deepening but policy appears consequential to migration quantity and quality. Later chapters build upon existing policy indicators to develop and deploy metrics to estimate policy effects on factor flows.

Optimal policies

What might optimal policies look like from a national, regional or global perspective? Migration economics scholars argue policies globally are sub-optimally restrictive, leaving large untapped potential development gains (as the next section explores). Even models assuming large negative externalities conclude that optimisation still requires substantial liberalisation not additional migration barriers (Clemens and Pritchett 2019). There is much less consensus on how to achieve such gains given prevailing political and perception barriers.

Among the more innovative suggestions are a daily visa auction system with a predetermined optimal supply (Vedder 2015), to allow free immigration subject to a discriminatory ongoing levy compensating for public good costs (Guerreiro, Rebelo, and Teles 2019), or tradeable immigration quotas and a migrant preference matching mechanism (Fernández-Huertas Moraga and Rapoport 2014; Hagen 2022). However, the commodification of migrant entry

faces criticism on both economic (increases the share of less productive migrants) and ideological (inhumane treatment) grounds (Productivity Commission 2016).

International organisations cite effective whole-of-government coordination, regular labour market testing, bilateral agreements, online services and minimum language skills as key components of an optimal immigration system (ADBI, OECD and ILO, 2016). Leading emigrant country policies include providing pre-departure information, overseas services and complaints mechanisms, financing, and return and reintegration policies. Improved data collection to inform economic needs tests, regulation of private recruitment agents, and labour market impact and integration monitoring are specifically suggested in the ASEAN context (Abella and Martin 2015). Migration attraction should also consider broader policies including human capital investment, health, taxation, fiscal policy and demographic change.

Contrastingly, arrangements with commercial actors — devolving or delegating some responsibilities — increase the risk of incentives misalignment and ineffective coordination (and thus perverse outcomes as previously mentioned; Surak 2018). Such suboptimal arrangements are evident in Malaysia where businesses and civil organisations have significant powers (Abdul Aziz et al. 1999; Devadason and Chan 2014) and in Australia's offshore processing of refugees (Barnes 2022). Likewise, treating integration as a migrant responsibility — neglecting the role of proactive support mechanisms and openness of political, economic and social structures — generates perverse outcomes (Klarenbeek 2021).

Both conceptual and empirical evidence also question widespread policymaker enthusiasm for skills-biased entry policies. Leading approaches highlight that countries should admit migrants complementary to native labour supply, with skills balancing — potentially achieved through unbiased immigration policies — not maximisation economically optimal (Borjas 2014; Chassamboulli and Peri 2020; Piyapromdee 2021). However, such arguments do not explicitly account for the skilled labour and capital complementarities of interest to this thesis. The preferencing of skilled migrants under Canada's visa policies is criticised for enabling employer exploitation rather than encouraging positive migrant selection (Vosko 2022), as are Australia's skilled visas for restricting access to social rights and representation (Clibborn and Wright 2022).

Migration and development

A positive relationship between FDI and migration may convey development benefits through migrants, not just investment. The intersecting literature has not advanced this argument and is harder to do so with existing evidence, which more commonly associates emigration (not immigration) with development. This section explores evidence of the migration-development relationship, which akin to FDI increases resource availability and innovative potential conditional on contextual factors. Factors conducive to harnessing migration's development potential overlap with those for foreign investors, suggesting there are factor flow interrelationships that countries can exploit to boost development. Evidence also highlights the reverse relationship, in which both emigration (inverted U-shape) and immigration (linearly) increase with development. Even conservative estimates suggest large global welfare gains would arise from freer mobility, far exceeding gains from alternative development approaches. Should a positive association between migration and FDI be more convincingly established — as this thesis contributes to — realisation of these gains may be more politically achievable.

Direct relationship

The relationship between migration and development is complex, bidirectional, conditional on additional factors and remains hotly debated. Migration is an inseparable component of overall development processes, with development outcomes fundamentally heterogeneous and non-deterministic (de Haas 2005; 2010b). Some key tenets of scholarly thought include that remittances provide stable financial inflows, even small liberalisations in global labour mobility can deliver large benefits, there can be growth benefits for both sending and receiving countries and migration alone cannot relieve structural development impediments (Geiger and Pécoud 2013).

Maximising the potential contribution of migration — including remittances, investments and return migration — to development requires improvements in the institutions, infrastructure and environment that are equally conducive to investment and development directly. By contrast, migration can exacerbate structural deficiencies, draining countries of skilled workers and increasing inequality by favouring the wealthy and entrepreneurial. Effective policies enhance the rights and freedoms of migrants, reduce transaction costs for remittances and circular migrants, and improve economic, social and political conditions in source countries (de Haas 2010b; 2012; de Haas, Czaika, Flahaux, Mahendra, Natter, Vezolli, et al. 2018).

A large and continuing strand of literature focuses on how developed countries can deter immigration through aid and economic support, with migration regimes oriented around controlling emigration demand until it declines with source country development (Hickey 2016; Gamso and Yuldashev 2017; Kugiel et al. 2020; Restelli 2021). Clemens and Postel (2018) provide a simple calculation to neatly illustrate the foolhardy logic underpinning this approach: it would take aid worth 50 times current levels until 2097 to raise developing countries' GDP to the estimated emigration deterrence threshold. They also highlight that emigration first rises with development as migrating involves upfront costs that are prohibitive for the poorest households. An inverted U-shaped relationship is now widely accepted (with some variations; Fischer, Martin and Straubhaar 1997), with emigration found to increase within a low-middle range of income per capita (Faini and Venturini 2010; Clemens 2014, 2020). Explanations for an increasing phase include increasing credit, information, structural unemployment, relative inequality, and immigration barriers favouring migrants from middle-income countries. Human capital upgrading, network size and macroeconomic drivers also appear influential (Dao et al. 2018).

de Haas (2010a) is perhaps alone in pairing the inverted U-shape hypothesis with its immigration equivalent, depicting immigration as linearly increasing with development. He argues that immigration aspirations follow a similar pattern to emigration (increasing then decreasing with development) while capabilities increase with development (first at an increasing then later decreasing rate).

Fischer, Martin and Straubhaar (1997) also offer a neoclassical macroeconomic take on migration and development, noting that migration cannot alter steady-state development levels unless migrants are more productive or bring new technologies, but can speed up convergence in development between countries. Persistent technological differences or increasing returns to scale would ensure both factors cluster in technologically-advanced or bigger locations with higher returns. The effect of migration on development thus depends on migrant characteristics and broader policy settings supporting technological catch up. For

example, high-skilled migration has been associated with the development of societies with greater equality, human capital and ultimately less elite-serving institutions (Engerman and Sokoloff 2002).

Further specificity on migration's welfare impacts is explored further in the next section.

Migration and economic welfare

A further strand of the development literature considers the economic welfare implications of migration, usually that of free or freer migration. Conceptually, free migration permits factor movement until marginal productivities of labour are equal worldwide, providing large allocative efficiency gains (Straubhaar 1992). Straubhaar further highlights distributional winners and losers, migrant competition for public goods motivating states to preference economic entry, and the consequent optimality of unrestricted economic migration, quotas limiting non-economic migration, and redistributive taxes compensating worse off locals.

Clemens' (2011) 'trillion-dollar bills on the sidewalk' is perhaps the most prominent statement of potential global welfare gains, estimating a 50-150 percent of GDP windfall from free migration. His analysis follows earlier estimates, including from Klein and Ventura (2009) whose model estimates emigration of 1.6-1.7 percent per annum in the first five years and global output gains of 8-10.5 percent. The old in rich locations benefit (as land and capital holders) while the youngest are slightly worse off, and the young in the poor region gain significantly. While illuminating, such vast factor movement has non-trivial unmodelled consequences for equity, nation state viability and congestion costs that make the modelled scenarios politically and practically implausible. More recent adaptations nonetheless persist with such scenarios and produce similarly staggering results (Bradford 2021).

More plausible scenarios still produce large economic dividends from freer migration. Having three percent of developed economy labour forces supplied by developing economies would deliver a short-run global GDP dividend of US\$288 billion (including existing residents in developed and developing countries gaining US\$109 billion and US\$44 billion respectively; Walmsley, Winters and Ahmed 2011). The largest overall gains come from unskilled labour movements filling developed country shortages. Having 5 percent of the developing world emigrate delivers a benefit equivalent to removing every last remaining trade barrier (Powell 2015). A more recent and innovative approach dynamically modelling endogenous decisions around migration, education and fertility produces liberalisation benefits of a 12 percent short-term increase in income per worker, increasing to 52 percent after 100 years (Delogu, Docquier, and Machado 2018). These results are based on the short-run migration stock increasing from 3.5 to 12 percent. Survey evidence suggests around 15 percent of the world population would migrate if possible (Esipova, Pugliese, and Ray 2018).

Lofty estimates have notable sceptics who argue they neglect migration costs (Borjas 2014). Borjas offers more modest calculations ranging from 13 to 60 percent of GDP and calculates that an average migration cost of \$140,000 eliminates estimated gains in their entirety. With migrants representing just 5 percent of the European Union population despite free interregional mobility and large economic disparities, scepticism towards mass movement has practical support (Dorn and Zweimüller 2021).

From a sending country perspective, remittances have a modest positive impact on growth subject to the recipient country having a conducive institutional environment (Catrinescu et al. 2009; Bollard et al. 2011; Cazachevici, Havranek, and Horvath 2020). Remittances also

provide larger and more stable financial inflows than FDI (Sinha, Tirtosuharto, and Sengupta 2019).

Within recipient countries, migrants can be more innovative than their native counterparts (Hunt and Gauthier-Loiselle 2010), can increase GDP per capita (Sanderson 2013) and can stimulate new export industries (Bahar and Rapoport 2018). Bahar and Rapoport equate the benefit of skilled migration to US\$160,000 in FDI per person (\$30,000 for all migrants). However, pessimists argue that an influx of low-skilled labour reduces incentives for technological automation (Lewis, 2011). Recent innovative studies have linked higher immigration intensity (Sequeira, Nunn, and Qian 2020) and greater ancestral diversity (Fulford, Petkov, and Schiantarelli 2020) to long-term dividends including higher per capita income, lower poverty and unemployment, and more educated and urbanised populations.

Attaining migration's potential benefits remains a significant challenge. Narrow conceptions of national economic benefit constrain development-focused policy vision and coordination between sending and recipient countries, particularly in Asia (Castles 2009). Prioritising mobility equity — equality of opportunity over equality of outcomes — would yield larger and more evenly distributed gains from migration (Hackl 2018).

Other migration impacts

Migration has multidimensional impacts on host environments, both economic and non-economic (this thesis prioritises the former), on sending countries and individual migrant impacts (Koczan et al. 2021 neatly summarises each dimension). Impacts can be either positive or negative, contrary to the mostly negative misperceptions outlined in Chapter 1; including that migrants reduce native employment and wages or disrupt the fabric of host society. Potential gains from migration are maximised with effective integration, which is supported by policies enhancing shared understanding, eliminating discrimination and facilitating migrant adaptation to the host environment. Actively attending to integration needs also provides confidence and control over migration flows and encourages cooperation between migrants, governments, businesses, and host communities. A non-discriminatory and cooperative environment is equally attractive to investors, suggesting effective integration could support complementary migration and FDI flows.

Labour market impacts

There is an extensive literature on migration's labour market impacts identifying and estimating native worker consequences. Overall evidence suggests relatively benign impacts on native employment and wages once native mobility and investment responses are accounted for, though impacts vary with labour market and worker characteristics.

Card's seminal paper and a more recent, econometrically sophisticated replication find no evidence that a large and sudden migration shock detrimentally impacts existing workers (Card 1990; Peri and Yasenov 2019). Another prominent natural experiment contrastingly finds marginal (significant) negative effects on wages (employment) following the fall of the Berlin wall, with older and unskilled workers hardest hit (Dustmann, Schonberg and Stuhler 2017). Some studies argue that accounting for native displacement (mobility) leaves comparable natives marginally worse off for both wages and employment (Card 2001; Borjas 2003). But migration appears to create more opportunities (overall) and marginally higher wages for complementary natives and scale benefits for producers (Özden and Wagner 2014).

Studies utilising whole-of-economy frameworks highlight how capital (including FDI) responds to the immigration shock, mitigating potential detriment for native workers (Ortega and Peri 2009). Such frameworks also show how skilled migration creates negative competition (for native workers) but also positive productivity effects from labour force upskilling (Grossmann and Stadelmann 2012). Allowing natives and earlier migrants to adjust their occupation, participation and human capital choices also nullifies potential wage losses and largely mitigates the distributional consequences (Llull 2018a). Within-firm evidence suggests young skilled immigrants boost overall firm employment, with young natives particularly large beneficiaries vis-à-vis older natives (Kerr, Kerr and Lincoln, 2015).

Other studies find immigration increases hours worked and average labour productivity (H. Li 2021), generates firm surpluses that result in more jobs and higher wages for complementary natives (Chassamboulli and Peri 2020), and prevailing wage differences that imply undocumented migrants more positively impact native wages and employment than documented migrants (Albert 2021). A recent review of Australian evidence identifies a need for context-specific scholarship to fill gaps, particularly surrounding temporary migration, as the labour market effects evidenced abroad may not apply to Australia's particular institutions and migrant characteristics (Boucher, Breunig, and Karmel 2022).

Migrant integration — economic measures

Large and sustained wage differences or underemployment may reflect barriers to migrant integration, which in turn can worsen public attitudes and reduce the economic gains from migration (Peri and Rutledge 2022). Poorly integrated migrants may also have negative spillovers on natives, as recent evidence surrounding transit migrants and entrepreneurial activity suggests (Ajzenman, Aksoy, and Guriev 2022).

Migrant labour market outcomes differ by country and skills. Migrants in Europe are 4-6 percent less likely to be employed than natives (with considerable variation across countries; Frattini, 2017), while in the US skilled Asian migrants exceed native outcomes but Latin Americans fare worse (Basu 2017). In Australia, where migrant selection is skills-biased and integration programmes are extensive, immigrants command a wage premium but are more likely to occupy jobs below their skill level (Parham et al. 2015; Junankar 2016).

Measuring integration outcomes via earnings differences faces confounding influences of migration cohort effects, skills composition and return migration (Borjas 2014; Rho and Sanders 2021). Nonetheless evidence suggests integration is higher when there are greater incentives to invest in location-specific skills and connections. Indeed, Dustmann (2000) explains lower initial skilled migrant wages as reflecting deficiencies in host country-specific human capital that reduce over time conditional upon incentives to accumulate skills post-arrival (mainly a long expected stay). Wage gaps narrow with time at destination though not necessarily at the same rate across cohorts (e.g. Borjas 2015; Abramitzky et al. 2021; Peri and Rutledge 2022) and countries (Gibson et al. 2018; Kosyakova and Brücker 2021; Liu-Farrer and Shire 2021).

Migrant integration — non-economic measures

Policy approaches to migrant integration can also influence economic outcomes, and alongside it the environment for foreign investors. There can be a fine balance between shaping policies and societies that harness both beneficial exchange and diversity, one that most countries struggle with. Commonalities facilitate economic and social exchange,

however private incentives to bridge gaps are insufficient in a diverse society, providing a rationale for governments to promote a common language, transaction norms, civics and institutions (Vigdor 2015). While the most cost-effective means involves endorsing majority preferences, assimilation does not imply the subjugation or oppression of minorities (Kets and Sandroni 2021). Failure to establish commonly accepted norms is why historically diversity increases the risk of conflict (Arbatli et al. 2020).

Integration approaches differ significantly between countries. Civic integration is the dominant norm in Western Europe, with obligations on migrants to learn local language, politics, history and culture (Joppke 2017). Settler countries in North America and Australia maintain more liberal multicultural conceptions (Vigdor 2015), which Koopmans (2013) attributes to their lower share of religious migrants. Less-developed recipient countries often lack institutional capacity to consider migrant integration, placing a premium on falsified identity documents (Sadiq 2005; C. E. Leong 2012) and creating widespread informality (Mutascu and Hegerty 2022). Institutional approaches significantly influence migrant norms and behaviours (Helliwell, Wang and Xu 2016) and the reverse may also be true (e.g. Dimant, Krieger, and Redlin 2015; Nowrasteh, Forrester, and Blondin 2020).

Direct support through active labour market integration programmes can be critical to migrant outcomes. In countries lacking adequate mechanisms, migrants' work experience and human capital are invalidated, forcing them into under- and vulnerable employment (Kogan 2004). Evidence from Scandinavia suggests targeted integration efforts (language courses and individual-specific training) significantly increase migrant earnings and decrease social benefit needs (Sarvimäki and Hämäläinen 2016) and raise employment outcomes among humanitarian and family migrants (Joonas and Nekby 2012), but can increase institutionalised subsidy dependence (Frattini, 2017). Access to citizenship also significantly affects migrant economic and social outcomes, while also raising migrant investments in local communities (Bratsberg, Ragan, and Nasir 2002; Hainmueller, Hangartner, and Pietrantuono 2017).

Rather than investing in costly support, countries instead seek migrants with characteristics believed to be associated with higher integration outcomes. Canada's experience suggests points-based systems increase the language proficiency and skill composition of the migrant intake but may not produce superior labour market outcomes (Aydemir 2011).

There remains much unknown about migrant integration and policy effectiveness, with a recent review concluding that most claims are based upon self-identified surveys that only provide correlation-based evidence (Laurentsyeve and Venturini, 2017). But suffice to say that migrant integration differences globally are associated with large divergence in countries' economic and social outcomes from immigration — meaning the potential to harness migration and FDI connectivity for development varies.

Home country impacts

While immigration outcomes are of greater thesis salience, emigration effects contribute to the regional policy recommendations in Chapter 8. A concern surrounding emigration and development is a 'brain drain' whereby relatively productive and educated individuals emigrate (Gibson and McKenzie 2011). Globally high-skilled migration is increasing more rapidly than unskilled, though non-OECD destinations are increasingly recipients as well as senders (Artuc et al. 2015).

The effect of skilled emigration on home country development is not unambiguously negative. It can generate positive externalities, most prominently increased human capital investment incentivised by higher returns to human capital abroad (Stark, Helmenstein, and Prskawetz 1997; Stark 2004; Beine, Docquier, and Rapoport 2001; 2008; Dustmann, Fadlon, and Weiss 2011; Docquier and Rapoport 2012), as evidenced among Filipino (Theoharides 2018) and Mexican (Kosack 2021) migrants. There are however critics who suggest such gains are conditional on the human capital incentivised (Di Maria and Stryszowski 2009; Di Maria and Lazarova 2012). Migration experience can also enhance the economic contributions of emigrants upon return, including through increased entrepreneurship (Wassink 2020), upward mobility (El-Mallakh and Wahba 2021), and via the acquisition of tacit knowledge (greater confidence and adaptability to challenges), soft skills and human capital abroad (Baláž et al. 2021; Palovic, Janta, and Williams 2021).

Emigration more broadly is commonly viewed through the prism of remittances and development, the substantive literature for which is addressed sparingly here. Remittances expand the financial opportunity set for migrant households, but fully exploiting potential spillover gains depends on there being productive investment opportunities — with remitters facing equivalent considerations to those of foreign investors (de Haas 2005; Giuliano and Ruiz-Arranz 2005). Remittances have increased investments in human, physical and social capital (Hossain and Sunmoni 2022) and funded housing and utilities improvements that reduce multidimensional poverty (Nogales and Oldiges 2021). A recent study estimates remittances reduce poverty incidence with an elasticity of around 1 (Saptono, Mahmud, and Lei 2022).

For the purposes of this thesis, policies that make emigration more conducive to development are not necessarily contradictory to efforts to harness immigration for development. Emigration in earlier development stages could build networks and institutional knowledge facilitating concurrent or future immigration and FDI. Greater policy coordination between predominantly sending and receiving countries and policy equivalence for emigrants and immigrants within countries could also underpin development gains. Greater understanding and acknowledgement of immigration's development implications, alongside FDI, is nonetheless the focus of later chapters.

Migration attitudes

Finally, migration attitudes form part of the alternative policy indicators deployed in later chapters. Migration policy authority and effectiveness, including towards harnessing migration's potential development benefits, is conditional on managing societal change and negative perceptions of migrants. Maintaining a receptive environment for migrants is not helped by unfavourable media coverage in recipient countries, including at times in Australia and Malaysia (McAuliffe, Weeks, and Koser 2017).

Tackling negative attitudes is complicated by misperceptions and conflicting evidence regarding causes. Contrary to popular perceptions, rising wealth and prosperity does not reduce anti-immigration attitudes, nor are direct employment or economic impacts the leading contributors to negativity (Mols and Jetten 2017). Major immigration waves bring employment and production gains but heightened cultural sensitivities that can occasion discontent (Tabellini 2019). Rather, immigration opposition is influenced by age, education and values — older, conservative, less educated and less trusting types are more likely to be

anti-migration (Mols and Jetten 2017; Margaryan, Paul, and Siedler 2021; Seewann 2022). It is not absolute differences in wealth or status that harden attitudes but relative gaps between groups and perceptions of narrowing over time.

Welcoming and sympathetic policies help soften public attitudes towards refugees (Sana 2021). Positive information campaigns linking migration benefits to other major policy issues (pension sustainability, aged care, labour shortages) also improve attitudes (Facchini, Margalit, and Nakata 2022), whereas strong assimilation approaches do not (Alarian and Neureiter 2021). Evidence also suggests there may be a cyclical relationship between policies, flows and attitudes, with high migrant inflows serving political client interests (mainly businesses) but ultimately triggering anti-immigration sentiment (Böhmelt 2021).

A recent discovery of note evidences strong and highly correlated opposition to both immigration and emigration, suggesting a more generalised opposition to human mobility pitting national against personal interests and involving a 'moral obligation to stay' (Kustov 2022).

That negative migration attitudes appear during periods of economic prosperity suggests their crescendo could precede a decline in FDI. This does not appear to have been explored previously but will be briefly in later chapters.

Looking ahead

The next chapter draws on these insights to develop a framework for concurrent migrant and FDI inflows at the country level, grounded in policy and other determinants with development linkages. The framework is then tested using a global panel dataset, setting the scene for more detailed country case studies in later chapters.

Chapter 3

Understanding the relationship between labour and capital imports in development

Synopsis

This chapter offers an analytical framework for understanding the concurrent importation of labour and capital and economic development. The framework synthesises the rich literature on FDI, migration and development to situate complementarity of migration and FDI (and a positive relationship between these flows) with economic development. It depicts the joint likelihood that potential migrants and investors choose to locate at home or abroad given a range of country characteristics that influence their choices (such as human capital, technology, institutions, resources and migration- and FDI-related and relevant policies). An illustrative three-country representation of factor flow potential along the development path then highlights the case of middle-income countries, whose positioning is not captured in two-country models. Empirical testing using a global panel dataset then finds evidence of a substantial positive relationship between leading development drivers — superior human capital and institutions — and the probability of the import of both factors. With middle-income countries that are simultaneous importers of both factors experiencing at least equivalent GDP per capita growth and greater improvements on broader human development indexes, there is modest evidence that complementarity of factor flows benefits recipient countries.

Theoretical framework for dual factor importation

The accumulation of capital and the way in which it is complemented by augmentation of the supply of labour is at the heart of economic development. The contribution to the increase in capital stock through foreign direct investment (FDI) and complementary immigration is thus an important element in development outcomes. This chapter seeks to develop a framework that connects labour and capital imports with economic development. Drawing on the extensive literatures about the determinants of migration flow and FDI discussed in Chapter 2, it sets up a model in which the country characteristics that influence decisions to migrate and invest abroad, and the relationship between those migration and investment decisions and development outcomes, can be empirically tested.

Taking inspiration from the migration decision model of Beine and Parsons (2015), a proposed framework for dual factor importation is presented as a country-level likelihood function. It describes a country's attractiveness and capacity to accommodate migrants and FDI as the combined probabilities of potential migrants and investors making location decisions.²

The probability that a country i will be a net importer of both migrants and FDI during period t is the joint probability of importing the individual factors (Equation (1)).

$$Pr(DFI_{it}) = Pr(NIMM_{it} > 0) \cap Pr(NFDI_{it} > 0) \quad \cdot \quad (1)$$

² The binary probability construct also reflects the absence of a sensible way to combine migrants (measured in people) and FDI (measured in monetary units) into a continuous variable.

where DFI = dual factor importer; NIMM = net immigration – net emigration; and NFDI = net inwards FDI – net outwards FDI.

In turn, net migration (NIMM) and net inwards FDI (NFDI) respectively reflect the net change in people and FDI (value) moving to and from country i to all other countries x .

$$NIMM_{it} = \sum P_{xit} - \sum P_{ixt}; NFDI_{it} = \sum FDI_{xit} - \sum FDI_{ixt} \quad (2)$$

where for example $\sum P_{xit}$ represents the total number of people from countries x having relocated to country i during period t .

Decisions by potential migrants and firms to locate within or remove themselves from (or to increase or decrease their investment in) country i during period t determine the changes in NIMM and NFDI. The decision functions underpinning these probabilities are not mutually exclusive but considered in turn below.

Before describing the decision functions, some overarching assumptions must be explained first. Consistent with a country-level focus, individual preferences (such as own-country bias, cultural openness and risk aversion) are not explicitly differentiated and are assumed consistent across countries. The framework is contemporaneous — representing periodic changes in factor flows rather than stocks — as this is more relevant to contemporary policy choices. Stocks are nonetheless incorporated as potential influences on flows. And to support analysis of both net and gross factor inflows in later chapters — examining the influences of aggregate resource accumulation and foreign factor injections respectively — the framework describes gross inflow functions before relating them to net inflows.

Migrant decision function

There is a rich cross-disciplinary literature that examines the drivers of migration, as detailed in Chapter 2. Underpinning the migrant decision function is the key principle that people (individually or as households) relocate to improve their livelihoods in destinations chosen based on a range of factors (de Haas, Czaika, Flahaux, Mahendra, Natter, Vezzoli, et al. 2018; Arif 2020).

First there are economic influences on the choice of destination, building on traditional conceptions of earnings differences and migration costs (moving, foregone earning and psychic) across countries (e.g. Ortega and Peri 2009; Borjas 2014; Clemens, Montenegro, and Pritchett 2019). The benefits are captured by expected wage gains, which while varying with migrant characteristics, are aggregated into a single representative individual for tangibility. The migrant decision function thus begins with the maximisation of expected wage differences between potential foreign locations and the representative individual's home country:

$$Pr(P_{xit}) = \max(w_{x_1t}, w_{x_2t}, \dots, w_{x_nt}; w_{it} - w_{x_1t}, w_{x_2t}, \dots, w_{x_nt}; w_{x_jt} - w_{x_1t}, w_{x_2t}, \dots, w_{x_nt})$$

To provide shorthand for all other countries x_1 to x_n with reference to country i :

$$Pr(P_{xit}) = Pr(P_{x_jit}) = \max(w_{x_jt}; w_{it} - w_{x_jt}; w_{\int_1^n x \neq j, i} - w_{x_jt}) \text{ or simply: } \max(w_t) \quad (3a)$$

where for example w_{it} is the expected wage in country i at time t .

Wage setting may partially reflect broader liveability factors, though in a cross-country context aggregate wage levels more closely reflect local living costs and productivity. Broader

livelihood influences (addressed in turn below) consequently enter the framework alongside wage differences as additional potential determinants.

The first such factor is human capital. Countries with higher human capital offer a greater range of (skilled) employment opportunities, higher wages, and more education and upskilling opportunities for migrants and their family members. Increased liveability at home is offset somewhat by the greater outwards mobility of high-skilled persons. Adding human capital to the decision function:

$$Pr(P_{xit}) = f[\max(w_t), H_{it}\{+\}] \quad (3b)$$

where $\{+\}$ denotes the expected positive relationship between human capital (at i) and the probability of a person from any other country x moving to country i during period t .

Another liveability influence is institutional quality (labelled ξ_{it}) — the formal rules, laws, rights, governance, stability, corruption and their execution within countries (the hard ‘rules’ aspect of North’s original conception — cultural institutions are considered separately; North 1991). Superior institutions encourage immigration (and discourage emigration) through direct utility effects (clear and enforceable rights, societal stability, voice and participation etc.), indirect income effects (strong institutions facilitate economic activity, supporting migrant employment) and migration cost effects (certainty around rules reduces costs and risks; Baudassé, Bazillier, and Issifou 2018; Ariu, Docquier, and Squicciarini 2016; Kureková 2013).

Resources (Ψ_{it}) — in the form of energy, minerals and arable land — provide the basic conditions for livelihood. Resource abundance incentivised migration during earlier historical periods and, in a supportive institutional context, resources create opportunities for other factors to generate higher returns (Mehlum, Moene, and Torvik 2006).

Factor clustering and agglomeration in global cities is also important to migrant decisions (Sassen 1988; Krugman 1991; Malecki and Ewers 2007). Global cities attract migrants through their greater range of formal and informal employment, diversity of ethnic communities, more receptive political and social environments, and more salient opportunities vis-à-vis rural areas. However, global cities can create congestion costs that diminish the lived experience. These factors enter the decision framework separately:

$$Pr(P_{xit}) = f[\max(w_t), H_{it}\{+\}, \xi_{it}\{+\}, \Psi_{it}\{+\}, O_{it}\{+\}, \theta_{it}\{-\}] \quad (3c)$$

where O_{it} and θ_{it} respectively represent global city prevalence and congestion.

Technology levels (A_{it}) can also influence potential migrants, with superior technology associated with higher living standards, skilled employment opportunities, and greater connectivity with friends and relatives back home. Technologically advanced destinations may have lesser/greater need for certain migrant employment (skills biasing) due to job offshoring and automation, increasing the potential supply of migrants more than host country demand. The overall impact is expected to be positive:

$$Pr(P_{xit}) = f[\max(w_t), H_{it}\{+\}, \xi_{it}\{+\}, \Psi_{it}\{+\}, O_{it}\{+\}, \theta_{it}\{-\}, A_{it}\{+\}] \quad (3d)$$

Equation (3d) represents the expected benefits of migrating as a function of the host country environment. Migrants expect to benefit from some combination of higher wages, better education opportunities, superior institutions, resource availability, agglomeration economies and technological access.

Beyond benefits, decisions reflect migration costs and possibilities. The first such influence on these are migration-related policies. While Chapter 2 detailed conflicting evidence of the effectiveness of migration policy in altering preferences, and later chapters examine this in greater detail, considering cost and possibility jointly neutralises effectiveness concerns. That is, the framework is not concerned with whether migration policies achieve stated or unstated objectives, nor separately identifying whether policies shift migration costs or possibilities, only whether policies alter migration decisions. They almost certainly do for working age migrants by affecting opportunities overall (the quantity accommodated) and for specific groups (e.g. skilled/unskilled) and channels (e.g. legal/illegal). While both restrictive and facilitative migration policies exist, policies primarily represent an overall higher cost and reduced possibility relative to unrestricted migration.³

Another influencing factor is migration-relevant policies, which are not migrant-specific but alter the host environment. Examples include taxes, labour market settings, housing availability and transport infrastructure. Importantly for the complementarity framing and for comparability across functions, FDI policies are explicitly highlighted as migration-relevant policies; with lower restrictions supporting migration through employment-generating business activity.

The third factor introduced here is migrant networks, reflecting the large literature showing migrants beget more migrants (Gurak and Caces 1992; Massey et al. 1993; Faist 1997; Hatton and Williamson 2002; Klabunde 2013). Earlier migrants support family reunion, information provision, journey facilitation and financing, and employment prospects and cultural familiarity at destination. Large migrant networks lower the costs and increase the possibility of migration.

The fourth and final factor is distance in the geographical, historical and sociocultural sense. Closeness between countries makes those destinations more attractive and attainable, through a less costly or risky migration journey, a more culturally familiar destination, or connectivity through common history or language. Greater distance is therefore expected to raise costs and reduce migration possibilities. Incorporating these into the migrant decision function:

$$Pr(P_{xit}) = f[\max(w_t), H_{it}\{+\}, \xi_{it}\{+\}, \Psi_{it}\{+\}, O_{it}\{+\}, \theta_{it}\{-\}, A_{it}\{+\}, \\ cp(f\{MP_{it}\{-\}, MPR_{it}(FDIP_{it})\{+\}, MS_{it}\{+\}, D(i-x)\{-\}\})] \quad (3e)$$

where cp is the cost/possibilities function, MP = migration-related policies, MPR = migration-relevant policies including FDI policies, MS = migrant stock and D = distance between the countries. Note that D is considered time-invariant in the short-term.

Firm investment decision function

Chapter 2 summarised the extensive literature on firm relocation decisions and the determinants of FDI. Akin to the migration literature, debate regarding overarching models and individual determinants of foreign investment flows is lively and contested.

Where migrants move to improve their livelihoods, firms relocate to control and profit from better or additional opportunities elsewhere (Hymer 1960). Like households, multinational firms spread their activities across locations to maximise expected returns. Firms optimise

³ Some migrant types (such as certain high-skilled workers, entrepreneurs) and those willing to relocate to prioritised localities within countries can be actively incentivised over and above free migration, but these represent a small fraction of overall migration policies and flows.

such ‘internalisation’ across countries according to locational advantages (factor endowments, enabling institutions and infrastructure, prevailing market conditions etc.) and ownership advantages (firm productivity and efficiency; Dunning, 1976). The framework here focuses on country-level locational advantages while considering ownership advantages in aggregate (as a micro not macro determinant).

Reflecting ambitions for the overall framework, commonalities between FDI and migration determinants are of primary interest. A focus on common determinants is both convenient for constructing the joint probability function and consistent with evidence citing similar economic, institutional, proximity and policy factors (Dunning 2003; Chanegriha, Stewart, and Tsoukis 2017; Nielsen, Asmussen, and Weatherall 2017).

The firm investment decision function thus begins with firms seeking to maximise the expected profits of investing across locations, which is a negative function of prevailing wage rates (all else equal):

$$\begin{aligned} Pr(FDI_{xit}) = & \max \left(\pi_{x_1t}(w_{x_1t}), \pi_{x_2t}(w_{x_2t}), \dots, \pi_{x_nt}(w_{x_nt}); \pi_{it}(w_{it}) \right. \\ & - \pi_{x_1t}(w_{x_1t}), \pi_{x_2t}(w_{x_2t}), \dots, \pi_{x_nt}(w_{x_nt}); \pi_{x_jt} \\ & \left. - \pi_{x_1t}(w_{x_1t}), \pi_{x_2t}(w_{x_2t}), \dots, \pi_{x_nt}(w_{x_nt}) \right) \end{aligned}$$

To provide shorthand for all other countries x_1 to x_n with reference to country i :

$$\begin{aligned} Pr(FDI_{xit}) = & Pr(FDI_{x_jit}) \\ = & \max \left(\pi_{x_jt}(w_{x_jt}); \pi_{it}(w_{it}) - \pi_{x_jt}(w_{x_jt}); \pi_{\int_1^n x \neq j, i}(w_{\int_1^n x \neq j, i}) - \pi_{x_jt}(w_{x_jt}) \right) \\ & \text{or simply: } \max(\pi_t(w_t)) \quad (4a) \end{aligned}$$

where for example $\pi_{it}(w_{it})$ is the expected profit (given the wage rate) in country i at time t .

Higher expected profits increase the likelihood of a firm relocating more investment to a given location.

Exploring this interrelationship, firms generally support increased migration as it raises the labour supply and can lower wage costs. Migrants face a trade-off between increased migration opportunities and lower expected (wage) returns. The reverse is also true though seldom acknowledged: more investment means greater competition for inputs including labour, and thus upward pressure on wages and downward pressure on profits among firms — all else equal (OECD 2008).⁴ There therefore exists a constrained complementarity between migrant and FDI flows — as increasing the other boosts their own expected returns all else equal.

Firms’ expected returns are also a function of economic opportunities on a less narrow basis than migrants. The firm investment decision function thus incorporates GDP levels and capital stock growth (CS) to represent market size and expansion:

$$Pr(FDI_{xit}) = f[\max(\pi_t(w_t)), GDP_{it}\{+\}, CS_{it}\{+\}] \quad (4b)$$

While higher GDP is associated with more opportunities for inwards FDI ($Pr(FDI_{xit})$ increases), it can increase outwards FDI to a greater degree ($Pr(FDI_{ixt})$ increases by more).

⁴ Abstracting from the potential productivity enhancing effects of foreign technology, knowledge, and process efficiency transfers, which can raise returns to foreign and local factors.

According to the Investment Development Path, NFDI increases up to middle-income then decreases and turns negative in advanced stages of development (Narula and Dunning 2010). The overall impact on $NFDI_{it}$ may therefore be negative.

Higher human capital locations also attract firms, as more educated and skilled workers can perform a greater range of technical and managerial tasks, have the soft skills desired by global businesses, and are better placed to facilitate further investment opportunities. Investors involve people too, valuing superior upskilling opportunities like other migrants.

Superior institutional quality also positively influences firm investment decisions, providing the foundations for economic activity to flourish, with certainty and efficiency gains associated with lower business risks. Abundant, easily exploitable resources also attract overseas investors, with resource-rich countries historically attractive destinations despite other detractions.

The global cities conception was originally based on foreign capital clusters. Cities evolved into hubs for specialised global business services, while trailblazing firms helped develop a business-friendly environment that reinforced locational attractiveness. As with migrants, agglomeration benefits can be limited by congestion; particularly for firms operating under a hub-and-spokes model (head office in the city centre and factories on the urban fringe).

Higher technology locations may also generate supranormal returns, but mostly for advanced sectors. Such locations can accommodate a more sophisticated range of firms but may create significant technological barriers to entry for others. On balance, higher technology is expected to increase outwards FDI more than inwards FDI (i.e. $Pr(FDI_{ixt})$ increases by more than $Pr(FDI_{xit})$). This reflects the exportable advantages of technological superiority, which contributes to NFDI decreasing and turning negative in advanced stages of development (Narula and Dunning 2010). Technology therefore enters the decision function as a positive, while noting an expected negative impact on $NFDI_{it}$:

$$Pr(FDI_{xit}) = f[\max(\pi_t(w_t)), \\ GDP_{it}\{+\}, CS_{it}\{+\}, H_{it}\{+\}, \xi_{it}\{+\}, \Psi_{it}\{+\}, O_{it}\{+\}, \theta_{it}\{-\}, A_{it}\{+\}] \quad (4c)$$

Akin to the case with migrant decisions, equation 4c represents the expected investment benefit function. Firm decisions are similarly influenced by investment costs and possibilities, which are presented here along corresponding lines.

FDI-related policies cover a wide spectrum from outright prohibition and discrimination against foreign firms to preferential treatment and generous incentives. Restrictive policies remain commonplace but widespread and extensive liberalisation (particularly from the 1970s to around 2008) created policy divergence between countries, with several countries effectively encouraging FDI over-and-above laissez-faire policies. While specific policy effectiveness suffers from lack of evidence, the threshold for this framework is whether policies alter firm decisions. FDI policy enters the framework with negative expectations, reflecting the effect of common regulatory restrictions globally.

There are similarly FDI-relevant policies, including migration and broader labour market policies. A conducive environment beyond investment-specific measures (and other factors separately incorporated) affects firm decisions, including policies surrounding tax, competition, infrastructure, trade, finance and environmental policy (OECD 2015; UNCTAD 2011). Migration policies and the migration stock are included as explicit links to the migrant

decision function. As a larger migrant supply is beneficial to foreign investors (including being able to relocate expatriates, relieve supply constraints and lower wage costs), more supportive migration policies are expected to boost FDI.⁵

Finally, distance in the geographical, historical and sociocultural sense is included. Closeness between countries reduces costs and raises possibilities for investment through a less costly relocation, fewer challenges maintaining business consistency, availability of consumers with similar tastes and native languages, easier navigation of familiar rules and regulations, or the existence of longstanding historical business links. Incorporating these together to complete the firm investment decision function:

$$Pr(FDI_{xit}) = f[\max(\pi_t(w_t)), GDP_{it}\{+\}, CS_{it}\{+\}, H_{it}\{+\}, \xi_{it}\{+\}, \Psi_{it}\{+\}, O_{it}\{+\}, \theta_{it}\{-\}, A_{it}\{+\}, cp(f\{FDIP_{it}\{-\}, FDIR_{it}(MP_{it}\{-\})MS_{it}\{+\}\{+-\}, D(i-x)\{-\})\}] \quad (4d)$$

where FDIP = FDI-related policies and FDIR = FDI-relevant policies.

Completing the migration-FDI importation function

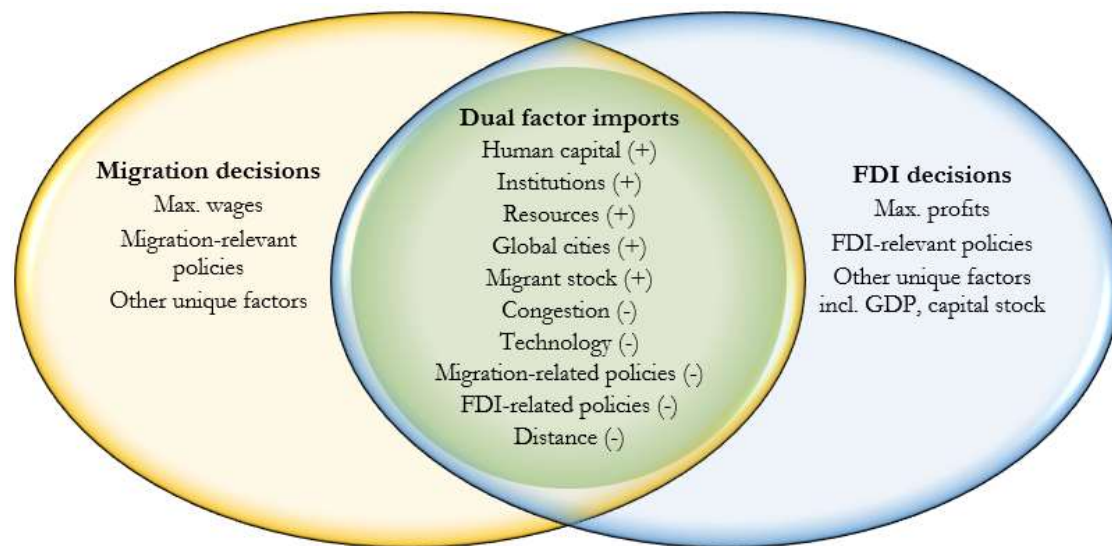
Equations (3e) and (4d) provide the migrant and firm investment decision functions for a representative recipient country (*i*), but completing the framework requires considering net effects. The overarching dual factor importation function reflects the probability that a country receives both more migrants and investment on net, derived from comparing factors across the two decision functions.

Higher human capital, superior institutions, abundant resources and the prevalence of global cities are each thought to increase the probability of both net migrant and FDI inflows. Superior technology, congestion and distance are expected to exert a negative influence on the probability of dual factor importation; promoting capital export for technology and discouraging both factor inflows for the latter two. The impact of migration policies and migrant stocks is also complementary between the functions, with more restrictive migration policies (larger migrant stocks) expected to reduce (increase) the likelihood of dual factor importation by simultaneously discouraging (encouraging) both factors. FDI-relevant policies are likewise included with negative directionality. To summarise visually (Figure 3.1) and notationally the core prediction of the theoretical framework:

$$Pr(DFI_{it}) = f[H_{it}\{+\}, \xi_{it}\{+\}, \Psi_{it}\{+\}, O_{it}\{+\}, \theta_{it}\{-\}, A_{it}\{-\}, MP_{it}\{-\}, MS_{it}\{+\}, FDIP_{it}\{-\}, D(i-x)\{-\}] \quad (5)$$

⁵ Subsequent empirical chapters contest this hypothesis, with the concluding chapter revisiting policy dimensions of the framework.

Figure 3.1: Visual representation of dual factor importation framework



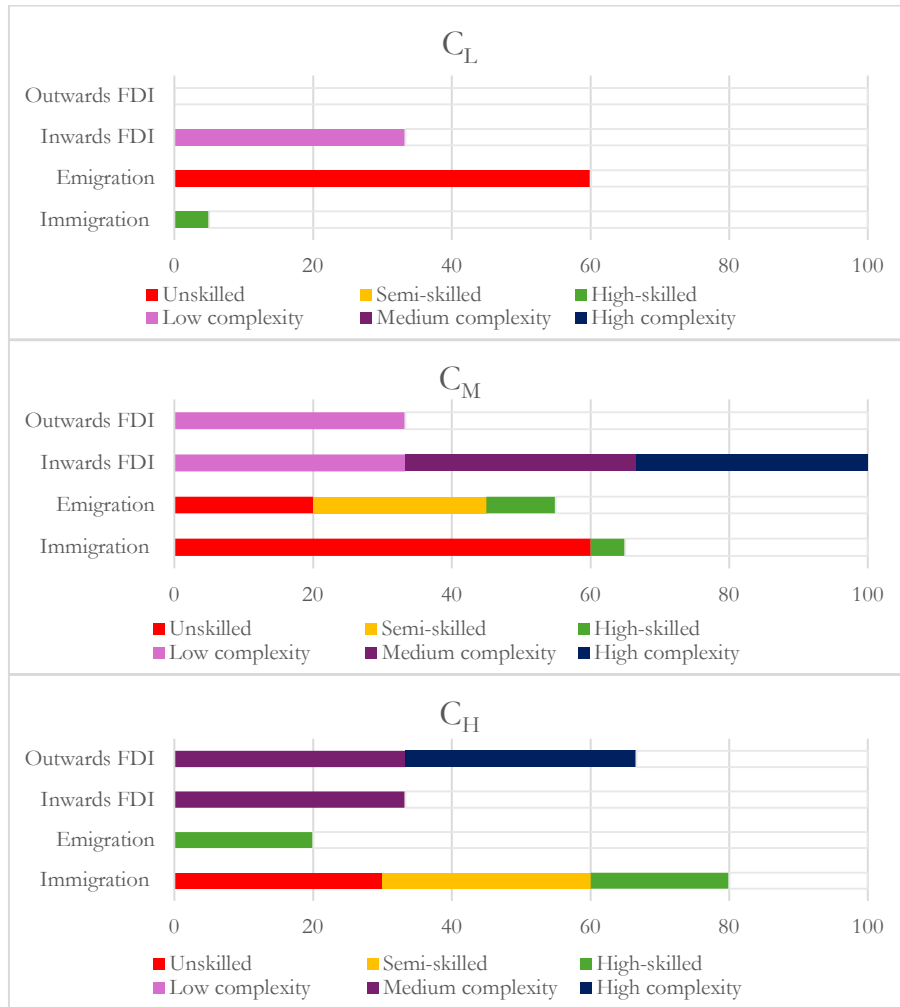
Dual factor importation and development – three-country representation

The preceding framework illustrates how dual factor import depends on the relative influence of various determinants, many of which are also associated with development. The influence of individual determinants may also vary with the stage of development — for example market size and technology may encourage net inflows up to a certain development level beyond which they support outflows. The framework does not predict that a country importing both factors is unambiguously better off, as additional factor inputs may not be productively employed. However, commonality of factors supporting dual factor import and development suggests a positive and reinforcing relationship where these factors dominate. Where this might occur on the development spectrum is explored in a three-country analytical exercise here and in subsequent empirical analysis.

Consider the case of three countries — an extension of the standard two-country representation allowing for representative low-income (C_L), middle-income (C_M) and high-income (C_H) countries (illustrated in Figure 3.2).

C_L represents a low-income country with excess labour, low wages, a shortage of capital, and a range of features that suppress productivity (low human capital and technology, poor institutions etc.). Potential emigrants are numerous but face severe financial constraints and sociocultural and policy barriers to migrating — though many still succeed; and while its immigration policies are incomplete/ineffectual, immigration demand is near zero. Firms face a torrid time navigating institutional constraints and developing essential infrastructure, but some will accept these risks to operate in a low-cost, labour-rich environment; whereas the country's firms are too underdeveloped to invest overseas. C_L is thus a net exporter of migrants and a net importer of FDI.

Figure 3.2: Illustrative factor flow opportunity sets under a three-country framework



Note: Line lengths are representative of factor flow potential between categories (not within).

C_H represents the counterfactual high-income country with relatively abundant capital, high wages, a shortage of labour (due to declining birth rates), and productivity-enhancing features (superior human capital and technology, efficient and secure institutions). It creates many highly skilled and sought-after potential emigrants but the majority circulate between high-income countries; while its immigration policies selectively limit and choose from a large supply of potential immigrants attracted to better wages and lifestyles. Foreign firms invest heavily in its productive business environment but at levels dwarfed by the internationalising activities of globally competitive domestic firms. C_H is thus a net importer of migrants and a net exporter of FDI.

Traditional two-country conceptions combine C_L and C_H on a development path that proceeds from capital importer to exporter and migrant exporter to importer, saying nothing of the transition. The three-country approach here introduces middle-income country C_M to demonstrate the potential transition.

C_M represents a country that has eliminated or greatly reduced its surplus labour (passed the Lewisian turning point; W. A. Lewis 1954), faces rising wages, and has increased its capital

stock but to levels still well below C_H . Its broader features also occupy the middle of the spectrum (some combination of improvements to human capital, technology, institutions). It is an attractive destination for C_L emigrants, arguably more so than relatively higher benefit, higher cost C_H ; whereas its own population has more skills and funds to relocate to C_H but decreasing incentives with wage and lifestyle convergence. Its potential to become a migrant importer is predominantly in low-skilled migrants. C_M also represents a lower risk and better equipped investment destination than C_L (able to accommodate more complex activities), but rising input costs are eroding its low-complexity product competitiveness. Its own firms are increasingly competitive and starting to invest in both C_L (to lower input costs) and C_H (to access larger markets and learn advanced techniques). It needs FDI to support further development but faces competitive forces endangering capital flight.

What is clear from the C_M opportunity set is that its potential migrant supply has unambiguously increased relative to C_L , whereas its potential FDI supply could have increased. Its FDI attractiveness faces competitive pressures in existing sectors that depend on increased production efficiency or continued supply of low-cost inputs (including migrant labour), whereas its ability to attract FDI in higher value-added sectors depends on its human capital, technology and institutional improvements or compensatory incentives and imports. Conceptually, there are implicit trade-offs between immigration, FDI complexity and comparative advantage at play, though a single large country could conceivably occupy a broad spectrum of activity.

Relating this to the earlier framework, C_M 's FDI attractiveness depends on the same factors associated with increased development and immigration; suggesting a positive feedback loop exists between migration, FDI and improvements in human capital, institutions and (temporarily) technology. Development stands to benefit relative to a counterfactual with unsupportive migration-related and relevant policies. Dual factor importation appears to be a natural, opportunity-enhancing state for middle-income developing countries, which alongside domestic reforms obviates the need for costly FDI incentives.

This analytical conjecture is consistent with effective migration policies at an earlier development stage — cognisant of evolving incentives for investors and migrants — not free migration. It also suggests that migration policy liberalisation equivalent to the implied cost saving of an investment incentive, coupled with a levy on migrants compensating for their expected government expenditure footprint, would be equally supportive of FDI without the incentive outlay.

Empirical analysis of the framework

Methodology and data

The theoretical framework presents an empirically testable likelihood model for dual factor importation, subject to data availability limitations. Reliable longitudinal congestion data for sufficient countries is unfortunately not available, so its effects cannot be captured. Directly accounting for migration and FDI policies is also thwarted by a lack of comparable data (particularly for developing countries). The implications of their absence are discussed later in the chapter.

Empirical testing, these factors excepted, replicates the theoretical framework with GDP and capital stock included as further controls. Reflecting development linkages, particular interest surrounds human capital and institutions, with a range of different measures explored for

robustness. Consistent with the framework, these factors, resource endowments and global cities prevalence are expected to positively influence dual factor importation. Negative relationships are expected for technology, GDP (above a certain level) and distance (in supplementary cross-section analysis, being a time-invariant factor). The empirical probit panel model therefore has the form:

$$Pr(DFI_{it}) = \phi(\beta_1 H_{it} + \beta_2 \xi_{it} + \beta_3 \Psi_{it} + \beta_4 O_{it} + \beta_5 A_{it} + \beta_6 GDP_{it} + \beta_7 MS_{it} + \beta_8 CS_{it} + \beta_y \tau_t)$$

with τ_t representing the set of time dummies.

A panel dataset comprising 183 countries over the period 1985-2015 (in five-yearly increments) is constructed from a variety of sources, including the United Nations Population Division (net migration and migration stock as a share of population), UNCTADstat (FDI stock), World Bank (governance indicators, GDP, urban population share, technology and global cities indicator components; (Kaufmann and Kraay 2019; World Bank 2020b), the Penn World Table (human capital; Feenstra, Inklaar, and Timmer 2015), the OECD/International Association for the Evaluation of Educational Achievement (human capital cognitive skills; OECD 2019; IEA 2019), Fraser Institute (Economic Freedom of the World Index; Fraser Institute 2018), the Center for Systemic Peace (state fragility; Center for Systemic Peace 2019), BP Statistical Review of World Energy (energy and minerals production; BP 2019), FAOSTAT (arable land per capita; FAO 2019), IMF (capital stock growth; IMF 2017) and CEPII (proximity variables; Mayer and Zignago 2011). The limited geographical and temporal scope of some datasets means most estimations capture closer to 120 countries and four five-year periods spanning 1995-2015. The panel is unbalanced (with individual estimation samples detailed in Appendix Table D.3) but the results differ little from corresponding checks using balanced sub-samples.

Five-year aggregations are necessitated by migration data availability and to mitigate the potentially misleading effects of annual investment volatility. As endogeneity is a potential concern, the explanatory variables enter the models with a five-year lag. The arguments for reverse causality are nonetheless relatively weak, as there is nothing about being a net importer of both factors that directly causes changes in the explanatory variables.

Additional sub-sample estimations test the differences underpinning migrant and firm decisions and by development level. This is achieved firstly by deploying three different binary dependent variables: a main dummy variable differentiating dual factor importer countries from all other countries (net exporters of one or both factors), and two additional dummy variables comparing dual factor importer countries with the subsamples of other FDI importers (but migrant exporters) and other migrant importers (but FDI exporters) respectively. A country is deemed a net importer of FDI or migrants if net inflows exceeded net outflows during the specified five-year period (Figure 1.2 depicts the distribution).

The second set of sub-sample models reflect estimations by development level using the World Bank's income level classifications. This approach isolates the effects at each approximate development stage without adding the estimation and interpretation complexity that continuous, non-linear income variables would entail.

While a full variable description (together with summary statistics and sample country lists) is provided in Appendix Tables D.1 and D.2, the key explanatory variables are worth highlighting. Human capital levels are notoriously difficult to measure precisely, with various proxies having advantages and limitations. Two measures are applied here: (1) the Penn

World Table human capital index, which captures average years of schooling and assumed rate of returns to education. Years of schooling is the most widely employed human capital measure owing to data availability advantages, however its imprecision is increasingly acknowledged; and (2) a measure of cognitive skills derived from PISA and TIMSS data constructed using a similar approach to Hanushek et al. (2015)⁶. Hanushek and Woessmann (2015) demonstrate the superiority of cognitive skills assessments in measuring educational attainment, however even combining PISA and TIMSS data produces a smaller and patchier sample with few developing countries. Different versions of the model test these measures separately.

Institutional quality is also difficult to measure despite a recent proliferation of indicators. In the absence of a single, definitive measure, institutions are tackled threefold. The first variable took a simple average of the World Bank Governance Indicators (which separately capture rule of law, regulatory quality, political stability, voice and accountability, government effectiveness and control of corruption; WBGI), which is among the most widely used datasets. A second widely used institutions measure deployed here is the Fraser Institute's Economic Freedom of the World Index (EFW) — specifically its sub-indexes of government size, regulation, and legal system and property rights. A third measure capturing conflict, regime type and instability is the Center for Systemic Peace's State Fragility Index (SFI). Additionally, the inclusion of migration stock⁷ (as a share of population) partially captures migration policy institutions alongside the direct facilitation effects of migrant networks (in the absence of direct policy controls).

To account for resource abundance, a composite volume measure is constructed comprising the weighted production (by annual volume share) of energy (oil, gas and coal) and metals (aluminium, bauxite, copper, iron ore, lead, manganese, nickel, silver, tin, tungsten, zinc and gold) together with arable land area. Preliminary testing of the volume measure against a per capita alternative suggests volume alone produces superior estimates.

Global cities are proxied using two alternative measures. A global cities indicator is constructed incorporating a weighted average of international tourist arrivals and air freight tonnage (proxying for people and business clustering). A second measure is urban population share — the share of a country's population living in cities with over one million inhabitants (city clustering). Finally, technology levels are represented in the model by a composite index incorporating fixed phones, mobile phones and internet usage (all widely used proxies for technology).

Based on a belief that country-specific effects are not obviously correlated with the regressors and consistent with preliminary (Hausman) testing results, all estimations are random effects panel models with period dummies controlling for time trends.

Estimation results

The various sample splits (comparator groups by income and importer/exporter reference) together with the inbuilt robustness testing of different human capital, institutions and global cities indicators result in more estimations than could usefully be presented in full. Tables 3.1

⁶ PISA-equivalent values were fitted from TIMSS data utilising the distribution of countries common to the two tests, with the measure incorporating only maths and science scores.

⁷ Note that this is a stock explanatory variable included in a flow equation, so there is no direct endogeneity concern.

and 3.2 consequently present the best fitting specifications sorted by comparator groups — low-middle income and FDI importers (3.1) and high-income and migrant importers (3.2). Coefficients represent the marginal effect (at mean values) of a unit increase in the corresponding variable, highlighting values statistically significant at the 95 percent confidence level or stronger. They represent the change in the predicted probability of being a dual factor importer. As a comparison across differing and in some cases incomprehensible units is unhelpfully complex, Tables 3.3 and 3.4 provide the estimated marginal effects per standard deviation increase for the same specifications (standard deviations within the estimated sample and the full comparator group sub-sample are presented but diverge little).

Consistent with different effects across the development spectrum, the results for the overall sample (specifications 24 and 25) cancel each other out. Only the schooling measure of human capital is positively associated with the probability of being a dual factor importer across the undifferentiated sample.

The results for the developing and FDI importer samples are of greatest interest and applicability to the theoretical framework (Table 3.3). Relatively robust support is found for the main variables of interest except for global cities. The probability of being a dual factor importer, as per Table 3.3, is 8-14 percent higher per standard deviation increase in schooling, with the results strongest vis-à-vis the FDI importer sample (that is, FDI importers that also import migrants are more educated). The results for the cognitive skills measure are not statistically significant, which may reflect the limited capture of developing countries by this measure.

Positive institutional influence on dual factor importation among developing countries is evident but varies by indicator. The WBGI measure returns significant results across all specifications, with the probability of being a dual factor importer increasing 11-29 percent per standard deviation. Here too the results are particularly strong among FDI importers, with those also importing migrants associated with superior governance. There is some support for the EFW measure albeit with greater specification sensitivity. The SFI results appear somewhat counterintuitive at first blush, as greater fragility (worse institutions) is associated with dual factor importation (a 14-20 percent higher probability per standard deviation). However, that the relationship only holds in low-income specifications suggests it may not be institutional attractiveness but regulatory ineffectiveness driving the result; with fragile low-income states less effective at preventing migrant inflows. The state fragility measure may be identifying localised movements between poorer countries while the WBGI represents a more global representation of relative institutional attractiveness.

A large, positive relationship between the migration stock and dual factor importation is also statistically significant across all specifications in Table 3.3. A one standard deviation higher migration stock is associated with a 7-18 percent greater likelihood of dual factor importation. This suggests a combination of cumulative causation (migrant networks facilitating future migration opportunities) and supportive migration policies contributes to dual factor importation.

The effect for the global cities indicator is quite large (15-21 percent) but only statistically significant in a minority of specifications, whereas the urban population specification is not significant for this sub-sample. Resource abundance has a smaller but positive impact on the predicted probability in the limited instances it is statistically significant.

Table 3.1: Summary results – developing and FDI importer countries (unit increase)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
HC (cognitive)	-0.09 (0.082)	-	-	-	-0.07 (0.062)	-0.06 (0.073)	-	-	-	-	-	-	-	-
HC (schooling)	-	13.1* (6.36)	20.2** (7.16)	19.8* (9.89)	-	-	12.1* (5.52)	20.9*** (6.32)	17.4** (6.74)	8.63 (6.14)	17.7* (7.20)	18.6* (7.29)	10.50 (8.75)	17.90 (10.4)
Institutions (WB)	29.4* (12.8)	18.9* (8.20)	19.5* (8.08)	22.1* (8.78)	33.5*** (6.59)	27.7*** (7.50)	23.0*** (6.12)	20.0** (6.11)	-	17.3* (8.16)	19.6* (8.52)	-	25.0* (10.5)	30.4** (10.7)
Institutions (EFW)	-	-	-	-	-	-	-	-	11.6** (4.35)	-	-	-	-	-
Institutions (SFI)	-	2.63* (1.14)	3.44** (1.23)	-	-	-	2.51* (0.991)	2.94* (1.15)	1.10 (0.952)	2.45* (1.12)	3.49* (1.24)	1.52 (0.838)	0.86 (1.46)	1.76 (1.35)
Global cities	-	0.373 (0.533)	-	-	0.48 (0.297)	-	0.41 (0.248)	-	-	1.24* (0.544)	-	-	1.17* (0.525)	-
Urban pop	0.331 (0.484)	-	0.319 (0.257)	0.26 (0.332)	-	0.22 (0.325)	-	0.25 (0.227)	0.23 (0.224)	-	0.31 (0.267)	0.19 (0.288)	-	0.25 (0.336)
Resources	0.00* (0.000)	0.00 (0.000)	0.00 (0.000)	0.00 (0.000)	0.00* (0.000)	0.00* (0.000)	0.00* (0.000)	0.00 (0.000)	0.00 (0.000)	0.00* (0.000)	0.00 (0.000)	0.00 (0.000)	0.00 (0.000)	0.00 (0.000)
Technology	-0.04 (0.212)	0.01 (0.097)	0.11 (0.124)	-0.11 (0.103)	-0.20 (0.143)	-0.01 (0.157)	0.00 (0.084)	0.07 (0.089)	0.08 (0.087)	0.05 (0.099)	0.18 (0.105)	0.224* (0.106)	-0.15 (0.14)	0.07 (0.112)
Migration stock	1.73** (0.626)	1.04** (0.372)	1.35*** (0.401)	1.33** (0.493)	1.44*** (0.369)	1.43*** (0.404)	1.3*** (0.279)	1.19*** (0.334)	0.876** (0.336)	1.25*** (0.375)	1.37*** (0.406)	1.11*** (0.305)	1.38** (0.47)	1.4** (0.47)
GCF	0.40 (0.231)	0.05 (0.055)	0.11 (0.088)	0.26 (0.22)	0.17 (0.153)	0.26 (0.162)	0.04 (0.039)	0.07 (0.067)	0.05 (0.074)	0.05 (0.053)	0.09 (0.071)	0.11 (0.08)	0.12* (0.054)	0.15 (0.178)
GDP	0.00 (0.017)	-0.01 (0.011)	0.00 (0.005)	0.00 (0.004)	-0.01 (0.011)	0.00 (0.007)	-0.01 (0.007)	0.00 (0.004)	-0.01* (0.004)	-0.03** (0.012)	-0.01 (0.007)	-0.01 (0.009)	-0.04* (0.015)	-0.01 (0.01)
Comparator group	LMI	LMI	LMI	MI	CAP	CAP	CAP	CAP	CAP	CAP-LMI	CAP-LMI	CAP-LMI	CAP-MI	CAP-MI
N	71	244	200	116	121	100	279	227	274	236	193	255	141	110
BIC	109.00	241.18	199.39	128.58	152.14	133.00	262.01	221.52	259.13	221.90	188.17	248.96	147.39	120.56
Prob>chi-squared	0.01	0.05	0.02	0.00	0.10	0.05	0.01	0.00	0.00	0.04	0.00	0.01	0.05	0.00

Notes: Cells provide the change in the predicted probability of being both a net capital and labour importer from a unit increase in the first column variable.

Statistical significance levels: * p<0.05, ** p<0.01, *** p<0.001

Comparator groups: LMI=Low-middle income; MI=Middle income; HI=High income; FDI=FDI importer; MIG=Migrant importer.

Table 3.2: Summary results – overall, developed and migration importer countries (unit increase)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
HC (cognitive)	0.35* (0.148)	-	-	0.10 (0.086)	0.01 (0.09)	-	-	0.44** (0.149)	-	-	-
HC (schooling)	-	42.2* (17.1)	47.5** (15.1)	-	-	39.8** (13.4)	46.1*** (12.9)	-	40.2** (13.7)	13.4* (6.23)	24.4*** (7.33)
Institutions (WB)	-	-	-	-	4.06 (9.69)	-	-	-30.20 (17.4)	-	10.40 (6.02)	5.64 (6.03)
Institutions (EFW)	-7.16 (9.19)	-6.37 (9.28)	6.83 (9.31)	-6.74 (7.01)	-	-15.2* (6.96)	-9.93 (8.88)	-	6.32 (7.8)	-	-
Institutions (SFI)	-	-	5.46 (3.20)	-	-	-	2.03* (0.924)	-	-	1.25 (0.978)	1.69 (1.04)
Global cities	-0.15 (0.108)	-0.05 (0.127)	-	-0.07 (0.081)	-	-0.06 (0.068)	-	-0.21 (0.11)	-	-0.11 (0.066)	-
Urban pop	-	-	0.88*** (0.256)	-	0.53* (0.208)	-	0.6* (0.218)	-	0.89*** (0.235)	-	0.380* (0.187)
Resources	-0.00 (0.000)	-0.00 (0.000)	-0.00*** (0.000)	-0.00* (0.000)	-0.00* (0.000)	-0.00** (0.000)	-0.00** (0.000)	0.00 (0.000)	-0.00*** (0.000)	0.00 (0.000)	0.00 (0.000)
Technology	-0.48* (0.232)	-0.43 (0.240)	-0.62* (0.287)	-0.39* (0.163)	-0.49** (0.179)	-0.33** (0.108)	-0.29* (0.139)	-0.29 (0.264)	-0.87*** (0.261)	-0.03 (0.0795)	-0.03 (0.0897)
Migration stock	0.43 (0.349)	0.42 (0.354)	-0.89 (0.543)	-0.18 (0.355)	-0.82 (0.596)	-0.03 (0.238)	-0.40 (0.405)	0.12 (0.368)	-0.12* (0.394)	0.691*** (0.196)	0.56 (0.333)
GCF	0.05 (0.081)	0.05 (0.079)	-0.01 (0.275)	0.03 (0.048)	0.06 (0.093)	0.04 (0.048)	0.19 (0.168)	0.07 (0.073)	-0.26 (0.337)	0.06 (0.056)	0.15 (0.112)
GDP	-0.01 (0.004)	-0.01* (0.004)	-0.018*** (0.003)	-0.01* (0.004)	-0.01* (0.004)	-0.01*** (0.003)	-0.02*** (0.003)	-0.09* (0.004)	-0.2*** (0.004)	0.00 (0.002)	-0.01 (0.003)
Comparator group	HI	HI	HI	MIG	MIG	MIG	MIG	MIG-HI	MIG-HI	All	All
N	89	92	95	108	96	134	142	82	112	332	275
BIC	153.20	158.78	151.60	163.58	145.44	180.65	192.67	139.24	178.04	363.11	354.01
Prob>chi-squared	0.07	0.04	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.03	0.00

Notes: As per Table 3.1.

Table 3.3: Summary results – developing and FDI importer countries (standard deviation increase)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
HC (cognitive)	-6.57	-	-	-	-5.00	-4.12	-	-	-	-	-	-	-	-
	-6.58	-	-	-	-5.20	-4.40	-	-	-	-	-	-	-	-
HC (schooling)	-	7.86	12.12	10.30	-	-	7.87	13.59	11.31	5.19	10.64	11.18	9.33	8.39
	-	8.19	12.26	10.16	-	-	8.12	14.19	11.52	5.37	10.60	10.88	9.04	8.31
Institutions (WB)	21.08	13.55	13.98	14.63	29.18	24.13	20.03	17.42	-	12.33	13.97	-	20.19	-
	16.41	12.30	12.01	13.66	27.37	23.10	19.16	17.02	-	11.12	11.88	-	18.21	-
Institutions (EFW)	-	-	-	-	-	-	-	-	10.78	-	-	-	-	4.89
	-	-	-	-	-	-	-	-	10.73	-	-	-	-	4.37
Institutions (SFI)	-	15.23	19.91	-	-	-	15.78	18.48	6.92	14.16	20.18	8.79	8.20	-
	-	14.82	19.28	-	-	-	15.32	18.42	7.03	13.81	19.55	8.64	7.59	-
Global cities	-	4.98	-	-	8.88	-	7.58	-	-	15.97	-	-	-	-
	-	5.71	-	-	11.19	-	7.98	-	-	18.39	-	-	-	-
Urban pop	4.19	-	4.03	3.30	-	4.02	-	4.53	4.08	-	3.88	2.35	3.12	7.77
	4.41	-	4.02	3.24	-	4.87	-	4.44	4.14	-	3.96	2.42	3.13	7.54
Resources	3.96	0.82	0.00	2.33	7.15	6.48	3.84	2.04	2.18	5.09	3.51	2.13	9.13	4.78
	9.13	1.22	0.01	3.85	11.12	10.90	5.10	2.96	3.26	7.00	5.27	2.88	12.62	5.46
Technology	-1.62	0.58	4.43	-5.08	-10.22	-0.68	0.23	3.39	4.28	1.99	7.11	8.70	3.03	9.31
	-2.17	0.70	5.17	-5.44	-14.28	-0.92	0.29	4.12	4.96	2.37	8.08	9.24	3.18	9.48
Migration stock	11.70	7.03	9.13	10.72	16.88	16.76	15.23	13.95	10.27	7.87	8.62	6.99	10.46	12.03
	15.57	6.59	8.30	10.03	17.90	16.34	14.21	10.79	8.07	7.58	8.51	6.74	10.77	10.82
GCF	15.12	1.98	4.07	10.53	6.82	10.16	1.40	2.61	1.84	1.76	3.51	4.25	5.95	13.85
	19.06	1.84	3.44	9.99	8.85	10.68	1.42	2.04	1.31	1.63	2.96	3.22	5.68	10.96
GDP	-0.01	-10.71	-4.29	-1.84	-8.35	0.58	-13.36	-3.39	-8.39	-42.81	-12.63	-12.04	-5.08	-4.28
	0.00	-15.35	-6.76	-3.18	-4.15	0.30	-19.36	-5.40	-13.37	-61.37	-19.93	-17.98	-8.87	-6.20
Comparator group	LMI	LMI	LMI	MI	CAP	CAP	CAP	CAP	CAP	CAP-LMI	CAP-LMI	CAP-LMI	CAP-MI	CAP-MI
N	71	244	200	116	121	100	279	227	274	236	193	255	141	110
BIC	109.00	241.18	199.39	128.58	152.14	133.00	262.01	221.52	259.13	221.90	188.17	248.96	147.39	120.56
Prob>chi-squared	0.01	0.05	0.02	0.00	0.10	0.05	0.01	0.00	0.00	0.04	0.00	0.01	0.05	0.00

Notes: Cells provide the change in the predicted probability of being both a net capital and labour importer from a standard deviation (sd) increase in the first column variable.

The first row for each variable was calculated using the sd for the overall comparator group sample, while the second row used the estimated sample sd.

Statistical significance levels: $p < 0.05$, $p < 0.01$, $p < 0.001$

Comparator groups: LMI=Low-middle income; MI=Middle income; HI=High income; FDI=Capital importer; MIG=Migrant importer.

Table 3.4: Summary results – overall, developed and migration importer countries (standard deviation increase)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
HC (cognitive)	14.52 14.97	- -	- -	6.96 7.17	1.01 1.03	- -	- -	19.04 19.70	- -	- -	- -
HC (schooling)	- -	19.29 17.43	21.71 19.71	- -	- -	28.38 23.04	32.87 28.58	- -	18.13 16.52	9.33 9.45	16.98 17.91
Institutions (WB)	- -	- -	- -	- -	4.25 3.14	- -	- -	-18.36 -14.77	- -	11.54 10.11	6.26 5.71
Institutions (EFW)	-4.97 -4.43	-4.42 -4.05	4.74 4.36	-6.81 -5.22	- -	-15.35 -13.86	-10.03 -9.59	- -	4.36 4.18	- -	- -
Institutions (SFI)	- -	- -	12.20 10.93	- -	- -	- -	14.15 11.65	- -	- -	8.31 7.97	11.23 11.26
Global cities	-11.02 -11.96	-3.82 -4.10	- -	-4.17 -5.03	- -	-3.55 -3.97	- -	-15.33 -16.57	- -	-4.33 -4.86	- -
Urban pop	- -	- -	24.33 21.51	- -	12.71 13.52	- -	14.46 13.23	- -	25.33 25.68	- -	7.24 6.78
Resources	1.56 1.90	-6.84 -8.22	-10.68 -13.63	-4.87 -7.82	-4.95 -8.36	-7.45 -10.87	-8.88 -13.14	3.95 4.75	-10.90 -12.87	0.40 0.60	-2.10 -3.41
Technology	-36.02 -27.02	-32.32 -24.69	-47.05 -43.21	-28.22 -26.10	-35.26 -34.12	-23.70 -24.55	-20.68 -21.88	-21.69 -16.71	-64.24 -63.93	-1.66 -2.06	-1.78 -2.26
Migration stock	8.12 6.33	7.88 6.57	-16.71 -11.37	-2.95 -2.60	-13.54 -9.74	-0.46 -0.41	-6.61 -4.86	2.28 1.81	-22.66 -15.78	8.64 8.38	7.00 5.54
GCF	1.85 2.36	1.76 2.20	-0.37 -0.15	1.50 1.62	2.94 2.42	2.14 2.10	9.84 6.89	2.59 3.25	-9.60 -3.48	2.05 2.09	5.38 4.11
GDP	-7.04 -7.96	-10.58 -11.82	-19.82 -23.21	-8.84 -10.35	-10.28 -12.39	-11.28 -12.28	-15.57 -16.87	-9.44 -11.10	-21.49 -24.14	-3.20 -4.60	-7.11 -11.11
Comparator group	HI	HI	HI	MIG	MIG	MIG	MIG	MIG-HI	MIG-HI	All	All
N	89	92	95	108	96	134	142	82	112	332	275
BIC	153.20	158.78	151.60	163.58	145.44	180.65	192.67	139.24	178.04	363.11	354.01
Prob>chi-squared	0.07	0.04	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.03	0.00

Notes: As per Table 3.3.

The results for high-income and migrant-only importers are strikingly different. Human capital provides one major commonality with the developing sub-samples, evidencing a positive association with dual factor importation. The effect is stronger for developed countries, with schooling associated with a 17-33 percent higher predicted probability per standard deviation and the cognitive skills measure a 15-20 percent increase where statistically significant. Institutions by contrast exert little influence, and no convincing evidence of a relationship. Institutions do not appear to influence becoming a capital exporter whereas higher schooling levels appear to forestall it.

The results for the global cities measures differ across specifications. The constructed indicator is statistically insignificant and negatively signed, whereas the urban population measure is strongly significant and positive with a 13-26 percent increased probability. The results for resource abundance are equally intriguing, associated with a 5-14 percent lower likelihood of dual factor importation. This contrasts the findings for developing countries, suggesting countries that have converted resource wealth into high incomes are rich in exportable capital.

Most pertinently for the developed country sub-samples is evidence of strong negative associations between higher technology, GDP levels and dual factor importation. The technology indicator is significant in most specifications at a sizeable 21-64 percent per standard deviation, while the same is true for GDP levels within the 9-24 percent range. This supports the hypothesised developmental tipping point: countries that become large and technologically advanced invest more overseas than they receive (and thus less likely to be a dual factor importer).

Discussion

These empirical findings provide support for the theorised factors underpinning dual factor importation along a country's development path, evidenced across a large and diverse country sample. Characteristic differences between countries are found to influence their ability to attract and accommodate net inflows, with the leading characteristics those associated with development more broadly. The theorised positive feedback loop between dual factor attraction and development is thus supported empirically.

The strong positive relationship between human capital and dual factor importation across the development spectrum supports the proposition that a more educated, skilled and productive workforce generates higher returns for both factors. It may also reflect the more location-specific nature of human capital (with psychic costs of migration and the limited international transferability of qualifications) compared to more readily exportable capital and technological advantages.

Strong institutions also facilitate dual factor importation into developing countries. Stability, rule of law, regulatory quality and good governance attract migrants to capital importing countries, corroborating broader arguments regarding institutions and development (Acemoglu et al. 2014; Han, Khan, and Zhuang 2014). However, state fragility increases the likelihood of importing both factors, which may reflect low-income states struggling to prevent migrant inflows from imperilled neighbours (alongside a very low value for net FDI inflows). Incorporating migration policy indicators as envisaged in the theoretical framework would aid this distinction. That a higher migrant population share is also associated with dual factor importation among developing countries suggests migration-specific institutions are important.

The insignificant relationship between migration stocks and dual factor importation among high-income and migrant importing countries is also noteworthy. If popular perceptions regarding migration impeding industrial (and human capital) upgrading are true, one would expect the relationship to be strongly positive (that is, increasing the probability that countries remain capital importers). That only one of nine specifications produces a statistically significant (*negative*) result conflicts with these perceptions.

The results for the global cities measures are unconvincing and suggest the two indicators measure different things, with the global cities indicator seemingly more relevant to migration and urbanisation to FDI. If data availability improves, future estimations would benefit from measures in which greater confidence can be held.

Despite the prediction that ‘third’ factors support complementarity, evidence surrounding resource abundance is weak. Moreover, the relationship appears to be positive for developing but negative for developed countries. This could reflect that at lower incomes, foreign inputs are more important to exploiting abundant resources but are subject to greater policy and environmental detractors. At higher incomes, abundant resources may have been productively exploited for many decades, generating large firms rich in exportable capital.

Bigger markets and more advanced technology are attractive features of host country environments, but on net they are associated with FDI exporters. Some countries must export capital, and the evidence here corresponds with their being the high-income technological elite. The hypothesised developmental tipping point where countries ‘graduate’ to globally competitive, technologically superior FDI exporters is supported, though a precise income threshold requires further exploration.⁸

Two statistically insignificant findings are also worth noting. Capital stock growth exerts little influence on dual factor importation, which suggests capital agglomeration is not biased towards migrant agglomeration. This is consistent with prior evidence that complementarity runs primarily from migration to FDI. Cross-section results incorporating geo-distance variables find these too are weakly associated with dual factor importation. Combined the results reinforce arguments that dual factor importation is a product of policy choices (human capital, institutions, technology, and migration and FDI policies) not fixed or inherited characteristics (resource abundance, geography, cultural and historical linkages), according with good government policy being essential to development (Atolia et al. 2020).

Overall, the empirical evidence supports the theoretical framework for dual factor importation and development. It accords with the migration and FDI development paths, predicting a period of dual factor imports around middle-income (in the absence of countervailing policies). This period falls between two development tipping points with different policy implications. The first — when a low-middle income country faces pressure to become a migrant importer — evidences a positive feedback loop between dual factor importation and development-enhancing factors (human capital and institutions). Resisting immigration through policy restrictions appears development detracting. The second — when a high-income country becomes so large and technologically advanced that it becomes an FDI exporter — seems less related to the country’s immigration propensity.

⁸ Empirical estimations of the Investment Development Path have been attempted, but no definitive or compelling estimates exist.

This discussion deliberately focuses on the *potential* to harness development opportunities associated with factor importation, rather than making assertions regarding outcomes. Indeed, while the potential benefits seem intuitively more appealing at the first tipping point (where the overall opportunity set expands to incorporate both factors), they are ambiguous at the second (where capital starts to preference overseas markets). Whether dual factor importation is welfare improving is an empirical question examined in the next section.

Association with economic development outcomes

This chapter does not advance an argument that being a dual factor importer causes superior development outcomes, merely the lesser claim that it expands the productive opportunity set and has symmetries with pro-development factors. This section provides a non-causal analysis of dual factor importers and economic development (welfare) outcomes to inform framework interpretation and policy implications.

The analysis here does not debate the merits of economic development measures but deploys those fitting the dataset. Firstly, real GDP per capita growth (RGDPPC) — a staple measure deployed extensively due to its availability and comparability across countries and time, but oft criticised for its narrow conception (Natoli and Zuhair 2011; Costanza et al. 2014). Secondly, the Human Development Index (HDI; UNDP 2019) and Historical Index of Human Development with GDP (HIHDGDP; de la Escosura 2019) are chosen for their extensive panel datasets and widespread use as alternative measures, combining economic, health and education measures.

The earlier panel dataset is supplemented with corresponding measures for RGDPPC, HDI and HIHDGDP, together with a long-term (30 years) change measure. The analysis has three components: visual plots of comparator groups and welfare measures against development levels (Appendix Figures D.1 and D.2), two-tailed significance tests comparing mean differences with and without income level controls (Appendix Tables D.4 and D.5), and cumulative distribution functions to supplement the analysis of averages (Appendix Figures D.3 to D.6).

The plots provide visual evidence of the hypothesised transition path through dual factor importation, though differences in country characteristics and policies likely obscure the effect. Dual factor importers differ little in terms of short- and long-term income growth but have poorer outcomes at very low income levels and better outcomes as incomes increase.

Statistical evidence suggests the average dual factor importer is around a quarter of a standard deviation better off on the HDI and HIHDGDP measures and no different for RGDPPC. No difference in RGDPPC is itself significant, for migrant importers require additional output to offset increasing populations. The mean differences for HDI and HIHDGDP in favour of dual factor importers double to over half a standard deviation when compared to FDI importers alone. A smaller positive difference for HIHDGDP persists over the long-term, though this effect disappears when controlling for income level.

Dual factor importers experience around 1.2 per cent higher GDP per capita growth (around a third of a standard deviation) but are worse off on broader welfare measures (between two-thirds and five-sixths of a standard deviation) compared to migrant-only importers. That is, countries that export FDI have lower growth but better overall development outcomes.

Dual factor importers are almost identically distributed in terms of RGDPPC at all income levels and systematically superior (inferior) in terms of broader metrics at the middle (ends) of the income spectrum. That is, benefits from dual factor importation arise in the middle of the income distribution. This is reinforced by sub-group comparisons.

This analysis generally accords with the core predictions of the theoretical framework, in particular highlighting that dual factor importation is primarily development-improving at middle-income levels. Later chapters explore the economic outcomes of dual factor importation more extensively through country case studies.

Conclusion

This chapter has examined FDI and migration complementarity and economic development, addressing theoretical gaps surrounding complementarity's determinants and relationship with the development path. It advances and empirically tests a framework for dual factor importation grounded in migrant and firm investment location decisions, evidencing a positive feedback loop between the common determinants of dual factor importation and development. Dual factor importation is identified as a 'missing middle' transition stage between two tipping points — from migrant exporter to importer at middle-income and from FDI importer to exporter at high incomes.

Human capital and institutions are highlighted as key determinants of dual factor importation among developing countries, whereas larger markets and technological superiority are associated with FDI export. Factors beyond the control of government policy — such as natural resource abundance and geo-distance variables — exert comparatively little influence. Correlation evidence provides support for dual factor importation's potential to be development-enhancing and per capita growth neutral at middle-income levels.

Dual factor importation appears to represent a potentially development-improving state around middle-income. Policy biases supporting FDI but overly restricting migration thus appear detrimental to development for middle-income countries. Effective immigration control systems complementary to investment and development are preferable, while costly FDI incentives could be replaced by immigration policy relaxation. A non-burdensome policy environment supportive of bidirectional FDI flows appears optimal across the development spectrum.

Subsequent case study chapters explore these findings, relationships and specific policy effects further. Supplementing global evidence with more detailed within-country analysis can help tease out nuanced patterns and relationships of interest to policymakers.

Chapter 4

Migration, FDI and industrial upgrading in Malaysia

Synopsis: This chapter examines the contribution of concurrent inflows of migration and FDI to Malaysia's industrial upgrading and economic development. It tests widespread beliefs about the contribution of FDI to the economy and the claims of some analysts that foreign worker inflows have not helped but instead impeded industrial upgrading. VAR and VEC modelling find largely positive and bidirectional relationships between various FDI and migration variables, uncovering distinct formal (new/approved investment and documented migration) and informal (undocumented migration and established investors) channels of influence of migration and investment on economic development. Evidence of the contribution of factor inflows to industrial upgrading is weaker and appears overstated relative to that of domestic influences. However, increased foreign company registrations and immigration are associated with the growth of industrial complexity whereas FDI inflows appear to have been biased towards sectors with low-industrial complexity. The results suggest that while domestic factors are the leading determinants of industrial upgrading, immigration has modestly supported industrial upgrading directly, as well as by attracting investors, whereas FDI has mainly supported expansion and retention of existing industry.

Introduction

Located at the geographic and globalised heart of Southeast Asia, Malaysia presents a comparatively successful economic development story. It has achieved average GDP growth of around 6 percent per annum since the late 1980s, with FDI-supported, export-led development. FDI's contribution to Malaysia's development is admired; long associated with establishing pioneer industries, export market access, transfers of business know how and essential injections of capital. The concurrent expansion, and contribution to development, of immigration is less prominently acknowledged, and commonly discredited — owing to migrants being undocumented or uneasily welcomed through legal channels. Foreign workers — predominantly low-skilled and from within Asia — have nonetheless been a consistent feature of Malaysia's development story and are increasingly associated with maintaining investment competitiveness. Malaysia's FDI and migration policies are among the most explicitly linked globally despite a clear preference towards FDI.

Long-held prejudices about the relative benefits and costs of FDI and immigration and policies favouring FDI reinforced each other. Investors have been enticed with financial incentives and investment environment liberalisation, whereas migrants have gained few rights and faced burdensome regulation, financial disincentives, and increasingly strict enforcement penalties (though reforms were neither linear over time nor equal across subcategories of investors and migrants).

A recent manifestation of these perceptions and this policy thinking — amid concerns Malaysia is struggling to escape the middle-income trap — is the idea that abundant low-cost, low-skilled foreign labour is disincentivising Malaysia's industrial upgrading (H. G. Lee 2020; BNM 2021 — Box 3). This thinking needs to be tested against the evidence.

Malaysia has several of the characteristics identified in Chapters 2 and 3 as a case in which capital inflow and migration have been complementary: abundant natural resources, stable institutions, relatively low population density and a large migrant population (at independence in 1957). Its peak growth phase has occupied the approximate development range (low- to middle-income) in which complementarity of factor inflows is thought to be beneficial (see Chapter 3). Industrial upgrading requires larger quantities and qualities of both capital and labour, with foreign contributions of both potentially alleviating domestic shortfalls. And factor inflows do not occur in a vacuum but alongside changes to domestic factors and policies whose influence on industrial upgrading — both directly and indirectly by attracting factor inflows — must also be considered.

This chapter examines two related propositions: that FDI and immigration inflows are positively related and have contributed to Malaysia's industrial upgrading individually and/or collectively. It does so through a combination of baseline correlation, VAR and VEC modelling using data for 1963 to 2018 and deploying a variety of FDI (gross and net inflows, investment approvals, and foreign company registrations (FCR)), migration (documented and undocumented) and economic complexity measures to represent industrial upgrading.

The next section provides additional context on Malaysia's factor flow experience and policies. Subsequent sections detail the methodological approach, summarise the main results and discuss their importance to our understanding of complementarity and development.

Background

Chapters 2 and 3 set out the literature from which the interest in complementarity between international labour and investment flows derives and a framework linking migrant and FDI movements to country characteristics (including policies) and development stage. Malaysia's development experience offers a pertinent case study for the application of this framework and the complementarity of migration and FDI in practice. After a failed experiment with heavy industrialisation and import substitution, Malaysia pursued export-led development supported by FDI after the late 1980s. Increasing openness to FDI is credited with spurring Malaysia's industrial awakening and development success (Athukorala and Waglé 2011; Menon 2008; OECD 2013). Alongside this but less acknowledged in popular narratives, immigration was significant and ever-present — documented migration since the early 1990s under formal policies and undocumented migration before then via permeable borders with neighbouring Indonesia, the Philippines and Thailand (Kaur 2004; Kassim 2014).

Malaysia's difficult experience with colonisation left a legacy of antagonism towards non-Malays (Malaysian Chinese and Indians) and immigrants, with citizenship and race policies persistently divisive. Ethnic tensions peaked with the 1969 race riots, contributing to the forestalled development of formal guest worker policies. Only amid severe labour shortages and heightened concerns with undocumented immigration was a foreign worker system introduced in the early 1990s, and unease with immigration has underpinned policy since (Kaur 2008; 2015; L. C. Chin 2017; Kassim 2017; 1987). There have been cycles of permissibility and crackdown featuring temporary freezes on recruiting new foreign workers, changes to foreign worker levies and who pays (the employer or employee), fluctuations in the sectors that can employ migrants and for how long, and shifting legal responsibility for foreign worker recruitment and regulation under increasingly strict enforcement penalties.

Malaysia's foreign worker system is unstable and seemingly ineffective due to a misalignment of stakeholder incentives encouraging informality, exploitation and corruption.

Malaysia has mostly encouraged FDI since shortly after independence. The Pioneer Industries Ordinance (1958) provided the earliest investment incentives, offering tax breaks and tariff exemptions for foreign (and domestic) firms to create new industries (Abdul Kohar, McMurray, and Peszynski 2017). Bilateral treaties, customs tariff exemptions and the Investment Incentives Act (1968) further broadened incentives to foreign investors before the New Economic Policy arising from the race riots substantially clouded the investment environment. The creation of free trade zones and exchange rate liberalisation contrasted with *bumiputera* (Malay) ownership and formal investment approval requirements, firm nationalisations and severe restrictions on foreign banking activities. The tide turned firmly towards liberalisation and facilitation again in 1986 with the Promotion of Investment Act introducing generous incentives and providing exemptions to foreign ownership restrictions. Aside from some minor (and often short-lived) policy tightening around particular priorities, Malaysia's foreign investment environment has progressively liberalised since, with major reforms in 1998 (equity limits largely abolished and no longer tied to exports), 2003 (permanent abolition of equity limits in manufacturing sub-sectors) and 2009 (major liberalisation of service sectors) (OECD 2013; Bank Negara Malaysia (BNM), various years).

Policies favouring FDI over immigration are not unique to Malaysia, as argued in Chapter 1. But the perceived superiority of FDI over migration for development — among countries at all levels of per capita income — is not grounded in economic theory nor supported by empirical evidence, as documented in Chapter 2. Following similar logic, the influence of factor flows on industrial upgrading in Malaysia requires scrutiny.

Industrial upgrading comprises several different phenomena, including product, process, intra- and inter-firm upgrading; on which numerous firm, employee and country characteristics exert influence (Gereffi et al. 2001). The main measures of upgrading focus on the product space, advancing upgrading as changes in a country's ability to produce more complex and higher value added goods by upgrading existing production capabilities (Hidalgo et al. 2007). This approach has been used to develop datasets for empirical analysis (Simoes and Hidalgo 2011; discussed below). However critics say such measures ignore how global production sharing has transformed industrial value chains in countries including Malaysia (Thomson and Athukorala 2020), where specific comparative advantages can be developed without proximate industries (for example, making cars is no longer a prerequisite for specialisation in the manufacture of complex car components). Thomson and Athukorala emphasise the importance of the investment climate in influencing greenfield investments in new and specialised industries regardless of existing production capabilities.

Chapter 2 highlighted the mixed evidence regarding the influence of factor inflows on industrial upgrading. Multinational subsidiaries are not always granted mandates or the autonomy to undertake upgrading operations, so that FDI into developing countries may boost export volumes but not export sophistication (Harding and Javorcik 2012; Tüselmann and Buzdugan 2016). Thomson and Athukorala however find FDI central (alongside trade openness) to the creation of new industries. Less-skilled migration in Malaysia is linked to reduced adoption of labour-saving machinery, including in neighbouring Thailand (E. Lewis 2011; Pholpirul and Rukumnuaykit 2017). Skilled immigration is associated with

entrepreneurship, innovation and productivity gains consistent with enabling industrial upgrading (Saxenian 2007; Jensen 2014; Nathan 2014).

Research specific to Malaysia is limited. Prominent early contributions suggest that by failing to strengthen domestic firm interlinkages with foreign investors, domestic firms became trapped in less productive industries whose survival depends on cheap and abundant immigrant labour (Henderson and Phillips 2007; R. Phillips and Henderson 2009; Rasiah 2011). The evidence presented was only descriptive but reflective of popular concern, and may consequently have contributed to policies formalising anxieties around foreign labour dependence in Malaysia's New Economic Model (National Economic Advisory Council 2010). More recent proponents highlight the coincidental trends of rising low-skilled foreign worker shares and slowing wage and productivity growth in manufacturing, unconvincingly arguing labour influx is associated with capital hollowing despite this not being evident in capital-to-labour ratio data (Narayanan and Lai 2014). Bank Negara Malaysia economists also argue that abundant low-skilled migrant labour distorts factor prices, weakening incentives to adopt labour-replacing technology or undertake greater value-adding activities using high-skilled labour (Ang, Murugasu, and Wei 2018). They identify industry-level correlations between a high share of migrant labour and low productivity.

Data limitations have largely prevented the generation of more compelling empirical evidence. One exception uses manufacturing data from 2005-09 to show that a higher foreign labour share is associated with higher productivity, with the positive productivity effects evident for both high- and low-skilled workers (Jordaan 2018). Other studies demonstrate that the employment of foreign workers creates new jobs for Malaysians in adjacent higher skilled roles (Del Carpio et al. 2013; 2015), which could in turn support domestic labour productivity.

The perceptions of the effect of FDI on industrial upgrading in Malaysia are generally favourable and highlighted by positive case studies. Japanese electronics firms are touted for having upgraded and upskilled their Malaysian subsidiaries, while Penang industrial zones are advanced as examples of FDI-led diversification into more complex products (Edgington and Hayter 2013; Rasiah, Shan, and Salih 2017). These studies provide valuable firm-level evidence but it is not clear whether they are representative of Malaysia overall.

Debate about factor inflows and industrial upgrading was reinvigorated by COVID-19 pandemic mobility restrictions, dividing respected economic commentators. Shankaran Nambiar argues that *"It would be foolhardy to rush into projects that will benefit foreign companies and which will use migrant labour"* (Bhattacharjee 2020). Yeah Kim Leng likewise saw the pandemic downturn as a chance for reorientation, arguing: *"While a foreign labour shortage will constrain the country's economic recovery, it nevertheless provides policymakers and industry leaders with the opportunity to restructure the economy to higher-value activities and better-paying jobs"* (E. Lee 2020). In the same article Niaz Asadullah disagrees, arguing a ban on foreign workers provides a popular quick fix that could hurt productivity. Meanwhile, Lau Zheng Zhou argues *"Malaysia should prioritise the development of regionally competitive, high-technology sub-sectors, as attracting FDI to these industries will help form the basis for our long-term development and industrial upgrading"* (FMT reporters 2020).

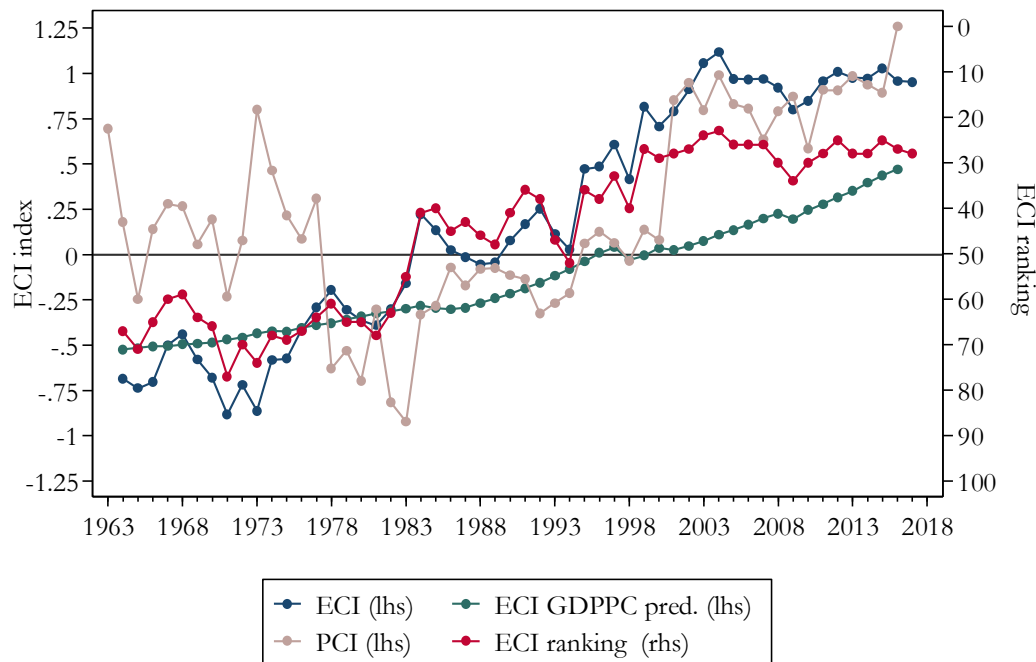
The following sections seek to provide more empirical evidence about factor flow complementarity and industrial upgrading in Malaysia, and a more robust basis on which to assess Malaysia's experience and what it means for leveraging factor flows for economic development.

Complexity in Malaysia

Before proceeding to the estimation results, this section depicts complexity changes over time, providing an initial assessment of whether industrial upgrading stagnation is evident in economic complexity data.

Malaysia's ECI growth has slowed and dipped slightly since 2004 when its global ranking peaked at 23 (Figure 4.1). It was a relatively poor performer during the 1960s and 1970s before achieving the steepest gains between 1995 and 2004 — a period immigration critics associate with the opposite (Rasiah 2011). Malaysia's complexity levels remain well above comparable peers — with an ECI approximately double the predicted value* for its GDP per capita — however its advantage halved in the past 15 years.

Figure 4.1: ECI in Malaysia, 1963-2018



Source: Author from Simoes and Hidalgo (2011).

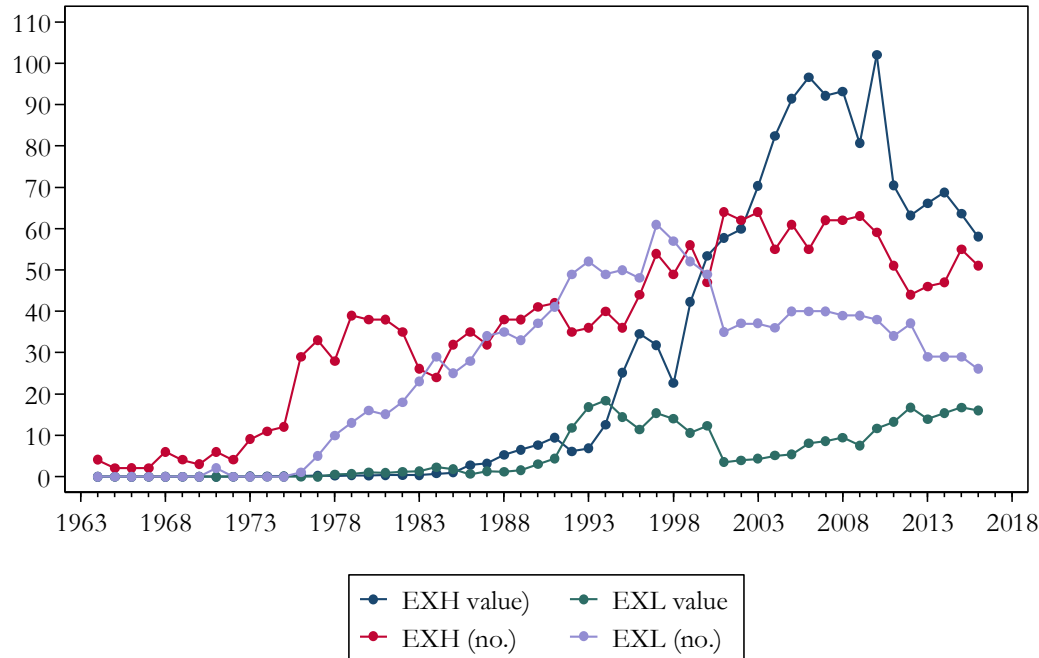
Notes: *ECI GDPPC pred. represents the predicted ECI index value for Malaysia based on a simple regression of ECI values and GDP per capita within a comparable range (US\$1,500-\$11,300).

Examining manufacturing-specific PCI illustrates differences with the overall economy experience. At most points throughout the sample period (excluding early years with fewer products), PCI has tracked below ECI. This could reflect extractive industry upgrading preceding the manufacturing sector or it taking longer to build global competitiveness in manufacturing. A large jump in PCI in 2001 brought it close to ECI levels, after which the two measures followed similar patterns before PCI leapt again in 2016 (the last year available). PCI thus paints a more optimistic recent upgrading picture than ECI.

The number of relatively complex products (EXH) rose sharply in the mid-1970s before contracting in the early-mid-1980s as the heavy-industrialisation experiment failed (Figure 4.2). The number of more complex products trended upwards until 2000, levelled off for a decade, and has dipped since. The number of less complex products (EXL) grew significantly between the mid-1970s and mid-1990s — briefly exceeding EXH in the early 1990s — before

falling back to mid-1980s levels since. In terms of values, EXH has exceeded EXL since 1995 and grew strongly up until 2010. EXH fell dramatically in 2011 and has continued to decline thereafter. EXL remains below its 1994 peak but has steadily risen since 2001. Combined, this data suggests a significant decline in complex product export volumes alongside a steady return in less complex product competitiveness consistent with industrial upgrading stagnation concerns.

Figure 4.2: Export values and product numbers by complexity level, 1963-2018

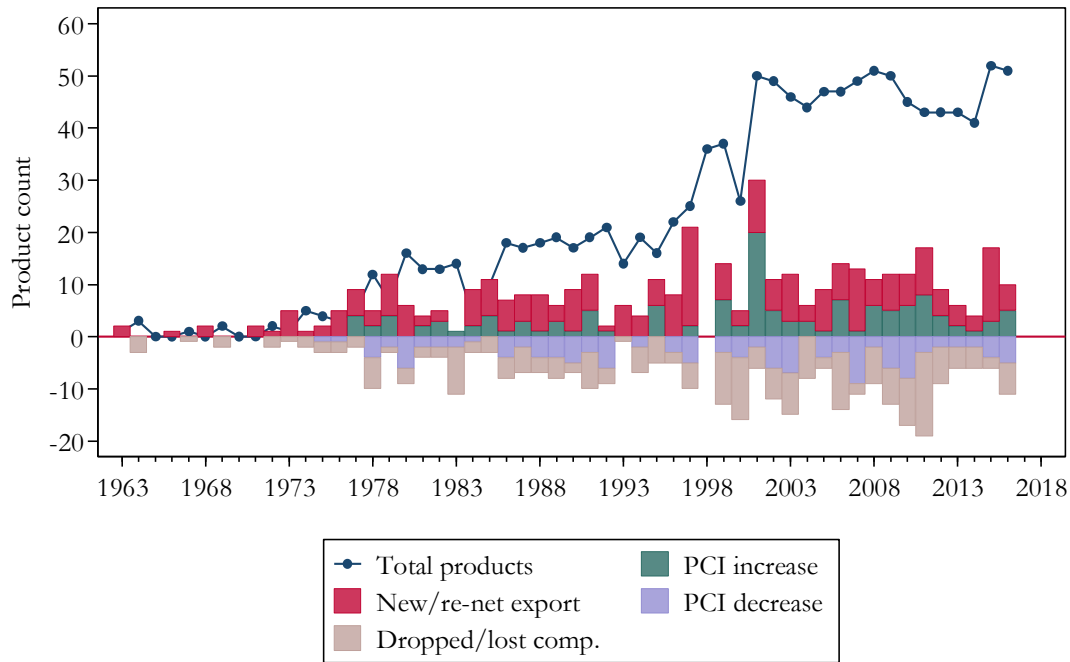


Source: Author from Simoes and Hidalgo (2011).

Notes: EXH and EXL are products classified by complexity relative to Malaysia's overall ECI score. The value is in US\$ billions, whereas 'no.' is the number of product categories.

To consider whether these shifts reflect changes in export bundle composition or product complexity changes within the export bundle, Figure 4.3 attributes movements for relatively high complexity products ($PCI > 0.5$) to either export competitiveness changes or product PCI revaluations. Total complex products have increased over time and seemingly received a major, sustained competitiveness boost during the 2001 global recession. Over the full period about 66 percent of increases and 62 percent of decreases to Malaysia's complex export bundle were the result of competitiveness shifts (Malaysia gained or lost competitiveness), with the remaining due to PCI movements (product complexity was upgraded or downgraded). Similar proportions persist in recent times. That is, changes in Malaysia's export competitiveness are about twice as important to complex product patterns as evolving product complexity globally.

Figure 4.3: Movements in Malaysia's complex product mix, 1963-2018



Source: Author from Simoes and Hidalgo (2011).

Method and data

To test the relationship between migration and FDI, and their individual and combined influence on Malaysia's industrial upgrading since independence, first requires a measure of industrial advancement. That neither the process of industrial upgrading nor technology are linear or singular across time or sectors creates measurement challenges. Technology proxies such as fixed and mobile telephone lines and internet usage dominate early estimates, but these do not satisfactorily represent industrial upgrading. The number of industrial machines per capita is also used in localities where data is available (not Malaysia; De Long 1992; Zeira 1998), but this only captures automation-based upgrading, ignoring labour and procedural improvements.

A leading modern approach to approximating technological advancement and industrial upgrading comes from the Observatory of Economic Complexity (OEC; Simoes & Hidalgo, 2011). The OEC's Economic Complexity Index (ECI) and Product Complexity Index (PCI) measure complexity through the relative scarcity of exported goods across time, geography and product space. Countries that export a bundle of goods (and selected services) produced by few others are considered more advanced; and complex products in turn are those produced in few locations. Technological complexity is thus inferred from producer scarcity, providing a relatively robust approximation of production requirements.

This chapter adopts ECI as one measure of industrial upgrading, with three additional measures developed using the supporting dataset to focus on Malaysia's manufacturing sector — the primary recipient of FDI inflows historically. The second measure ('PCI' hereafter) takes the OEC's PCI for net-exporting manufacturing sectors and calculates annual averages weighted by export volumes. The third and fourth measures split the identified sectors (expressed in US dollars) into high ('EXH') and low ('EXL') complexity products

relative to Malaysia's overall ECI score in the corresponding year, separately identifying factor flow influence on relatively high- and low-tech industries. Net import sectors are excluded from these three measures to focus on evolving comparative advantages.

Several FDI and migration measures are adopted to examine different migration-FDI relationships. Gross and net FDI inflows ('GFDI' and 'NFDI' respectively) capture traditional investment volume measures (Nunnenkamp, 1989; UNCTAD, 2020) while FDI approvals data ('APVD') measures the value of new prospective investment (BNM; MITI, various years). Foreign company registrations (FCR) provides a further variable exploring whether the entry and exit of foreign companies produces different patterns to investment flows (Department of Statistics Malaysia, various years).

Three alternative migration measures are used. The first is official labour force survey data on non-citizen workforce participation (LFS; DOSM, 2020) — which claims to sample "all private households" and thus migrant workers, but realistically only reflects documented migrant patterns. It is arguably the most accurate official data collection but likely significantly underestimates the foreign population, especially those without legal status. The second and third measures (UNhigh and UNlow respectively) are empirical estimates for undocumented migrants in Malaysia calculated by modelling rice consumption per capita and development, the methodology for which is detailed in Appendix A (Nixon 2024). These provide relatively unbiased estimates of the sizeable undocumented population, with comparisons between documented and undocumented migrants enabling analysis of informality on complementarity and industrial upgrading. The distinction may be arbitrary under migration policies that provide few benefits to legal migrants and their employers, which in the industrial upgrading context disincentivises migrant-employer loyalty and investment in worker upskilling.

Complementarity and industrial upgrading relationships are tested against other potentially confounding influences on factor flows and technological advancement. The choice of variables follows the framework in Chapter 3 but draws on different datasets for some variables to maximise longitudinal coverage. The first variable is human capital, repeating the human capital index (HCI; years of schooling; Feenstra et al., 2015) measure and introducing educational attainment (EDUA⁹; a metric based on the highest educational attainment of the population over 25; Barro & Lee, 2013). More educated populations can conceivably produce a more complex product range. The second is liberal democratic institutions (LIBDEM; the liberal democracy index from Coppedge et al., 2019), which represent limits on executive power and the preservation of minority rights — institutional environment features of particular importance to foreign persons and businesses. LIBDEM improvements should attract migrants and investors and support complexity growth. The third is real GDP in constant purchasing power parity terms (RGDP; World Bank, 2020), which controls for market size — as larger economies may support more complex activities. Similarly, the final variable included is the capital stock (in constant 2011 US dollar terms; CAPSTK; IMF, 2017), as capital deepening could support industrial upgrading and factor inflows. Interaction terms for the FDI and migration measures are also modelled to directly explore factor complementarity.

⁹ Five-yearly data on educational attainment for the population over 25 years old were transformed into an index using a simple weighting by education level (0.5 for some primary, 1 for completed primary, 1.5 for some secondary and so forth). Missing years were filled using proportionate changes in HCI.

Baseline relationships between variables are established with pairwise correlation analysis and single explanatory variable models. Estimates cover the full sample period (maximum of 1963-2018, according to data availability by variable) and sub-periods of interest, including Malaysia's peak development¹⁰ from 1988-2004 (inclusive) and the modern era of purported industrial upgrading stagnation (2005 onwards). The dates reflect Malaysia switching to an export and investment-led development policy in 1988 and a notable turning point in the economic complexity data in 2004-05. The baseline analysis explores patterns across sub-samples too small for causal analysis.

Then the analysis follows the well-trodden path of VAR and VEC modelling. Two broad approaches are offered for each model. The first is the VAR at levels specification, with preliminary testing used to determine the optimal lag length (using a combination of Final Prediction Error (FPE) criteria and autocorrelation and stability testing). This follows concerns that time series modelling can be over engineered and lose detail (Gospodinov, María Herrera, and Pesavento 2013). The second adopts the more conventional approach to model specification incorporating the full suite of testing for optimal lag length, stationarity, autocorrelation, stability, cointegration and error distribution (as neatly summarised in Shrestha & Bhatta, 2018). There is evidence of non-stationarity (mean and variance changes over time) among essentially all modelled variables (based on Augmented Dickey-Fuller and Kwiatkowski, Phillips, Schmidt and Shin (KPSS) tests), so these variables are transformed into first differences to create stationary time series better suited to empirical analysis. Those without evidence of cointegration (based on Johansen tests) are presented as VAR at first differences, the remainder as VEC. The VEC specifications are run with multiple variable orders to identify different cointegrated relationship combinations.

There is a large number of variables and their analysis results in over 1700 specifications. This volume approach increases robustness by reducing the risk of unrepresentative results from individual model misspecifications.

Results

Baseline associations between migration, FDI and upgrading variables

Evidence of FDI and migration complementarity, from correlation between the two, is strong across the full sample period and almost all measures (Appendix Tables E.1 and E.2-E.6). It is evident for all FDI and migration variables except UNlow after 1988 (insignificant relationship) and net FDI throughout (weak negative relationship). Positive correlations appear less strong from 1988-2004 but stronger since, and only the foreign company registrations to documented migrants relationship is strongly positive throughout the sample period.

Baseline VAR/VEC model relationships (Appendix Tables E.7 to E.11) suggest gross FDI and both documented and undocumented migrants exhibit bidirectional Granger-causal relationships across the full and recent periods, including positive long-term cointegration. Migration (most convincingly documented) appears to increase foreign company registrations in the short-term. Periods of relatively high gross FDI are associated with more

¹⁰ Based on the complexity patterns in Figure 4.1 and an understanding of key historical policy junctures.

migrants whereas periods of high net FDI are not, particularly lately as Malaysia's outward investment increased alongside migration inflows.

Increased immigration — both documented and undocumented — and foreign company registrations appear to be correlated with ECI improvements, particularly during the peak development period. Investment inflows (gross FDI and approvals) also exhibit a positive association with ECI over the full sample but are insignificant during peak development. Interaction terms similarly exhibit positive associations, suggesting more migrants and foreign companies together contributed to higher economic complexity. However, Granger-causal relationships between factor flows and ECI are less evident. Approvals and foreign company registrations' interactions with migration appear to have positively influenced peak development ECI, while since 2005, migration measures alone and interacted with gross FDI contribute positively.

Factor flow correlations with PCI follow a similar pattern on a later timeframe. During the reform period, foreign company registrations and documented migrants exhibit the strongest positive correlations with PCI (undocumented migration is also moderately positive). Correlations between interaction variables and PCI were weak during peak development save for those involving foreign company registrations. Positive associations have weakened since 2005 but to a lesser degree than for ECI, suggesting manufacturing-specific complexity remains supported by new foreign companies and workers. Granger-causal relationships likewise suggest foreign company registrations and gross FDI interactions with migration and migration measures individually appear to have increased manufacturing complexity over the full and recent periods. These baselines further evidence negative relationships during peak development except for foreign company registrations. This suggests recent complexity stagnation may have been less of a manufacturing and foreign factor influenced problem — at least during the sample period — contrary to popular commentary.

Evidence for high- and low-PCI manufacturing exports (EXH and EXL respectively) appears particularly telling. During the peak development phase, more foreign workers and companies were associated with growth in relatively high- but not low-tech exports. Granger-causal baselines further evidence company registrations as favouring EXH over EXL, though with an influence that has turned negative since 2005. FDI inflows appear biased towards low complexity exports, exhibiting consistently negative (positive) relationships with EXH (EXL) alone and in interaction with migration variables. Approvals exhibit insignificant relationships.

Human and physical capital are strongly positively correlated with complexity improvements, as are liberal democracy improvements during peak development. However, the influence of these variables has weakened or turned negative (for liberal democracy) in recent times, and baseline Granger-causal relationships indicate real GDP growth has been biased towards low-tech exports consistent with an apparent downgrading of Malaysia's manufacturing complexity.

In sum, positive (or complementary) relationships are evident across different variables and throughout the sample period (especially since 2005), appear similar for undocumented and documented migration, bidirectional for inflows, unidirectional and stronger for formal labour in respect of companies (from migration to foreign company registrations), and associated with gross not net FDI inflows. Increased immigration appears positively associated with industrial upgrading (albeit with mixed evidence across upgrading measures

and time) alongside new foreign companies, whereas the influence of FDI inflows is weaker and more negative with a bias towards low-tech exports. Domestic factors exhibited strong positive relationships with upgrading variables that have diminished or reversed since 2005. Thus both foreign and domestic factors appear associated with recent upgrading stagnation, though foreign factors have had a mitigating influence in the manufacturing sector.

Factor flow relationships

This and the next two sections (on industrial upgrading) summarise the results of many specifications that incorporate additional (control) variables (individual specification results available in Appendix tables E.12-E.26). Table 4.1 reports the percentage of specifications exhibiting statistically significant Granger-causal or cointegrated relationships and whether they are positive or negative, while Table 4.2 provides mean and median coefficients for the corresponding relationships. Each relationship reflects an identical set of variable combinations.

There is fairly consistent evidence of a positive bidirectional relationship between gross FDI inflows and documented migration, both short- and long-term. A standard deviation increase in gross FDI (approvals) increases documented migrants by around 65,000-175,000 (116,000-197,000¹¹) persons after five years. The reverse relationship is similarly strong for investment approvals, with a standard deviation increase in documented migrants associated with average short-term increases that are much larger under significant only and VEC/DIFF averages (maximum of US\$3.8 billion) and a long-term increase of US\$1.9-2.3 billion. Evidence of Granger causality from documented migrants to gross FDI is less clear, with positive relationships evident in most specifications but average effects positive or negative depending on the measure/model.

The net FDI to documented migrant relationship also presents mixed short-term evidence with most specifications exhibiting positive relationships but negative average effects. The long-term relationship appears more definitively negative, with a mean effect of a 363,000 person decrease after 15 years per standard deviation. In isolation this result appears counterintuitive, but the results for undocumented migrants offer an explanation. A standard deviation increase in documented migration reduces net FDI by US\$0.4-2 billion short-term and US\$2.1-3.1 billion long-term.

Evidence for new companies (FCR) is also mixed, pointing to a small negative short- and inconclusive long-term influence on documented migrant numbers. The long-term relationship is positive for almost three-quarters of specifications but returns a negative average cumulative impulse response. The reverse relationship appears much stronger and more convincing, with increased documented migration boosting foreign company registrations both short- and long-term.

¹¹ Ranges based on mean/median and VAR/VEC model.

Table 4.1: Complementarity summary results

	VAR at levels	% (pos-neg)	VEC/DIFF (ST)	% (pos-neg)	VEC/DIFF (LT)			
					+ve	-ve	insig	coin.
GFDI → LFS	72%	59%	44%	48%	55%	31%	14%	98
GFDI → UNhigh	54%	97%	34%	95%	64%	27%	9%	100
GFDI → UNlow	44%	96%	17%	100%	69%	22%	9%	96
APVD → LFS	79%	42%	78%	45%	69%	13%	18%	104
APVD → UNhigh	75%	93%	63%	74%	48%	30%	22%	91
APVD → UNlow	61%	92%	47%	70%	47%	29%	24%	79
FCR → LFS	67%	-15%	27%	-57%	73%	21%	6%	100
FCR → UNhigh	31%	8%	15%	-22%	73%	20%	7%	89
FCR → UNlow	26%	-13%	12%	-14%	62%	28%	10%	87
NFDI → LFS	79%	27%	80%	21%	35%	42%	23%	100
NFDI → UNhigh	61%	38%	61%	47%	25%	49%	26%	57
NFDI → UNlow	61%	49%	55%	53%	18%	52%	30%	61
LFS → GFDI	69%	23%	23%	23%	54%	27%	19%	98
UNhigh → GFDI	84%	65%	43%	75%	55%	21%	24%	100
UNlow → GFDI	79%	73%	47%	85%	56%	16%	28%	96
LFS → APVD	66%	50%	40%	67%	72%	12%	16%	104
UNhigh → APVD	30%	-39%	7%	-25%	55%	21%	24%	91
UNlow → APVD	20%	-58%	5%	-67%	49%	22%	29%	79
LFS → FCR	56%	88%	32%	89%	68%	17%	15%	100
UNhigh → FCR	75%	89%	29%	76%	63%	7%	30%	89
UNlow → FCR	72%	86%	18%	55%	56%	7%	37%	87
LFS → NFDI	61%	-57%	40%	-29%	38%	38%	24%	100
UNhigh → NFDI	38%	-57%	3%	-100%	25%	46%	30%	57
UNlow → NFDI	41%	-48%	7%	-75%	23%	47%	30%	61

Notes: The first four columns represent short-term relationships, with the blue columns the percentage of specifications with Granger-causal relationships at the $p < 0.05$ significance level. The red/green columns represent the direction of the relationships identified, calculated as the ratio of positive relationships/total minus negative relationships over total. The last four columns present the percentage of long-term cointegrated relationships that are positive or negative (at the $p < 0.05$ significance level) or statistically insignificant, with the last column presenting the total number of cointegrated relationships identified, with a higher number indicating more evidence of long-term cointegration (all relationships are subject to the same number of specifications). GFDI = gross FDI inflows; NFDI = net FDI inflows; APVD = approved investment (value); FCR = foreign company registrations; LFS = labour force survey (documented) migrants; UNhigh = upper estimate for undocumented migrants; UNlow = lower estimate for undocumented migrants.

The bidirectional relationship between undocumented migration and gross FDI appears of several times greater magnitude than for documented migrants. Gross FDI inflows have an unambiguously positive influence on undocumented migrant inflows, with a standard deviation increase in gross FDI raising UNlow by 557,000-914,000 after five years and 2.4-2.7 million after 15 years. Undocumented migrants and approvals follow a proportionately similar pattern to gross FDI, with investment approvals increasing undocumented migrants by four or five for every documented migrant in the short-term (but declining to 2:1 long-term). Interestingly however, the reverse relationships for gross FDI and approvals diverge significantly. There is robust evidence that undocumented migrants Granger-cause increased gross FDI, contrasting the mixed results for documented migrants. On the other hand, the short-term relationship with approvals is rarely statistically significant and the long-term relationship appears negative. This may indicate distinct channels between different types of FDI and migrants.

Table 4.2: Factor flow relationships cumulative response for a one std. dev. increase

	VAR levels (5 years)				VEC/DIFF (5 years)				VEC/DIFF (15 years)	
	Mean	Mean sig. only	Median	Median sig. only	Mean	Mean sig. only	Median	Median sig. only	Mean	Median
GFDI → LFS	0.174	0.144	0.156	0.124	0.155	0.144	0.122	0.067	0.666	0.724
GFDI → UNhigh	0.691	0.797	0.652	0.850	1.010	0.930	1.130	1.107	2.998	3.553
GFDI → UNlow	0.557	0.653	0.559	0.659	0.786	0.796	0.914	0.720	2.338	2.686
APVD → LFS	0.130	0.134	0.118	0.116	0.143	0.145	0.196	0.197	0.749	1.062
APVD → UNhigh	0.514	0.535	0.477	0.497	0.566	0.697	0.568	0.767	1.919	1.548
APVD → UNlow	0.413	0.452	0.397	0.412	0.445	0.551	0.364	0.682	1.671	1.310
FCR → LFS	0.011	-0.017	0.008	-0.028	-0.110	-0.183	-0.092	-0.105	-0.138	-0.308
FCR → UNhigh	-0.018	-0.014	-0.036	0.007	-0.089	-0.137	-0.049	-0.304	0.398	0.073
FCR → UNlow	-0.089	-0.120	-0.100	-0.134	-0.111	0.047	-0.043	-0.093	0.071	0.135
NFDI → LFS	-0.026	-0.029	-0.022	-0.023	-0.016	-0.059	-0.027	-0.040	-0.363	-0.012
NFDI → UNhigh	0.128	0.069	0.169	0.097	0.360	0.153	0.133	0.067	0.969	1.190
NFDI → UNlow	0.170	0.162	0.170	0.160	0.394	0.163	0.156	0.073	1.514	1.394
LFS → GFDI	-0.132	-0.028	-0.141	0.164	0.224	-0.033	0.093	-0.238	-1.076	-0.331
UNhigh → GFDI	0.585	0.602	0.495	0.469	1.324	1.098	1.477	0.922	2.519	1.312
UNlow → GFDI	0.636	0.689	0.488	0.631	1.494	1.569	1.629	1.618	2.710	3.249
LFS → APVD	0.146	0.642	-0.111	0.235	1.601	2.716	0.631	3.790	2.266	1.919
UNhigh → APVD	-0.194	-0.638	-0.209	-0.787	-0.160	-1.856	0.040	-2.087	-2.103	-1.020
UNlow → APVD	-0.345	-0.721	-0.293	-0.781	-0.176	-1.876	0.009	-2.066	-2.129	-1.922
LFS → FCR	4.346	6.388	2.813	4.674	4.707	5.466	3.349	1.171	23.149	20.085
UNhigh → FCR	2.260	2.316	1.988	1.962	1.958	2.024	1.684	1.701	12.999	12.050
UNlow → FCR	1.999	2.105	1.747	1.808	1.711	1.580	1.227	0.922	13.049	11.834
LFS → NFDI	-0.494	-0.820	-0.433	-0.658	-1.400	-2.018	-0.724	-0.809	-2.113	-3.068
UNhigh → NFDI	-0.676	-1.134	-0.426	-0.792	-0.476	-1.498	0.000	-1.498	-4.011	-3.352
UNlow → NFDI	-0.716	-1.075	-0.405	-1.472	-0.457	-1.420	-0.013	-1.192	-3.712	-2.683

Notes: The cell numbers represent the cumulative orthogonalised response of a one standard deviation increase in the first variable on the second variable — averaged over all relevant specifications pertaining to the stated relationship. Units differ depending on the response variable: LFS, UNhigh and UNlow are in millions of persons; GFDI, APVD and NFDI are in billions of US dollars; and FCR is an index value. The columns represent the overall mean and median, for all specifications or only those in which the stated relationship is statistically significant (the ‘sig. only’ columns — significance at the $p < 0.05$ level). For example, the top left cell indicates that a one standard deviation increase in GFDI results in a cumulative LFS increase of around 174,000 workers over five years (averaged over all specifications). Colouring is for illustration only.

Higher net FDI also appears to increase undocumented migration but to a modest degree and more compellingly in the short-term than long. The relationship from undocumented migration to net FDI is weakly evidenced and negative where statistically significant. Alongside the gross FDI results, this suggests foreign investors create more opportunities for undocumented migrants and said migrants support outwards investment to a greater degree than inward.

The presence of more foreign companies appears to marginally increase undocumented migration over the long-term but not the short-term. The relative magnitude is small, suggesting a large difference in the influence (and perhaps use) of undocumented migrants by new compared to established investors. Intriguingly, undocumented migrants are associated with increased foreign company registrations, though to a much lesser degree than documented migrants (on a per migrant basis documented migrants have a 4-5 times larger effect on long-term foreign company registrations). This would indicate that investors’ response to a larger labour supply is weakened by informality.

To summarise the evidence on factor relationships:

- FDI inflows Granger-cause large and persistent additions to the migrant population, with the results for documented migrants larger and more robust for investment

approvals than gross inflows. FDI is associated with four to five times more undocumented migrants than documented, persisting long-term for gross inflows but diminishing for approvals;

- Documented migration appears to exert more positive influence on new approved rather than actual total investment, whereas the reverse is true for undocumented;
- Net investment has a much weaker influence on migration, while there is some evidence that migration increases outward investment over and above inward investment; and
- The relationship between migration and foreign company registrations appears positive over the long-term and less robustly evidenced in the short-term. Migration still has a much larger effect on foreign company registrations than the reverse, with the effect 4-5 times stronger for documented than undocumented migration.

Factor flows and industrial upgrading

Overall evidence of factor flow influence on ECI (overall upgrading) is limited (Tables 4.3 and 4.4). Documented migrants (39 percent) and approvals (37 percent) are the only variables for which at least a third of VAR levels specifications evidence statistically significant relationships. Likewise the evidence from differenced/VEC models is not strong, with a minority of specifications evidencing a long-term relationship. Where statistically significant, gross (net) FDI inflows negatively (positively) influence overall upgrading. A weakly evidenced effect for foreign company registrations suggests a minor short-term complexity boost that turns negative longer term, with a standard deviation increase in gross FDI/approvals lowering ECI by up to 0.12 (0.45) points after five (15) years. The VAR levels specifications suggest a standard deviation increase in documented migrants provides a 0.2-0.7 point increase to complexity (the average five-yearly change for ECI across the sample is 0.13 points and the standard deviation 0.65), with VEC models identifying the effect as long-term (with 0.7 mean). The result magnitudes for undocumented migrants are almost identical to those for documented but are statistically significant in fewer specifications.

The PCI results are similar to those for ECI except that documented migrants are more robustly identified as contributing to manufacturing sector upgrading. Documented migration is found to have a statistically significant granger-causal relationship in 80 percent of the levels specifications, averaging a 0.06-0.07 point increase after five years (noting PCI has a standard deviation of 0.54 and average five-yearly change of 0.07). Evidence from VEC specifications suggests the effect is longer-term and around 0.17 points after a relatively small (and perhaps negative) short-term impact. Company registrations and undocumented migrants also have slightly positive effects (foreign company registrations and UNhigh up to 0.13 and 0.12 long-term respectively) but are less robustly evidenced. There is evidence that FDI inflows negatively influence long-term PCI, with the mean effect between -0.15 and -0.2. Net FDI is the least robustly evidenced variable.

Table 4.3: Factor flows and upgrading summary results

	Model	VAR at levels	%(pos-neg)	VEC/DIFF (ST)	%(pos-neg)	VEC/DIFF (LT)			
						+ve	-ve	insig	coin.
GFDI → UPGRADING	ECI	24%	-91%	5%	-100%	27%	63%	10%	48
	PCI	20%	-33%	19%	-75%	23%	70%	7%	71
	EXH	91%	-95%	45%	-89%	39%	45%	15%	84
	EXL	58%	100%	5%	100%	65%	19%	16%	88
APVD → UPGRADING	ECI	37%	-100%	30%	-62%	13%	70%	17%	53
	PCI	22%	-40%	23%	-100%	34%	51%	15%	67
	EXH	80%	-89%	30%	-100%	21%	59%	20%	76
	EXL	80%	100%	60%	96%	49%	28%	24%	76
FCR → UPGRADING	ECI	26%	50%	4%	-100%	39%	56%	5%	57
	PCI	31%	14%	14%	33%	56%	32%	11%	62
	EXH	67%	23%	42%	50%	64%	26%	10%	78
	EXL	71%	13%	67%	17%	33%	56%	11%	81
NFDI → UPGRADING	ECI	13%	83%	2%	-100%	70%	7%	23%	43
	PCI	18%	0%	5%	0%	28%	33%	38%	39
	EXH	78%	97%	57%	80%	13%	74%	13%	77
	EXL	56%	64%	36%	94%	56%	19%	29%	52
LFS → UPGRADING	ECI	39%	46%	0%	N/A	38%	43%	19%	69
	PCI	80%	25%	36%	-13%	55%	26%	19%	112
	EXH	63%	-47%	38%	-50%	32%	48%	20%	113
	EXL	77%	48%	60%	50%	41%	38%	21%	111
UNhigh → UPGRADING	ECI	21%	15%	11%	20%	54%	23%	23%	69
	PCI	16%	57%	6%	100%	23%	38%	39%	61
	EXH	62%	65%	29%	35%	39%	21%	40%	105
	EXL	63%	34%	44%	54%	33%	50%	17%	101
UNlow → UPGRADING	ECI	18%	0%	14%	17%	44%	27%	29%	63
	PCI	20%	78%	6%	100%	25%	35%	40%	65
	EXH	52%	81%	24%	36%	38%	20%	42%	97
	EXL	62%	57%	39%	74%	35%	50%	15%	96

Notes: As per Table 4.1.

Table 4.4: Upgrading relationships cumulative response for a one std. dev. increase

	Model	VAR levels (5 years)				VEC/DIFF (5 years)				VEC/DIFF (15 years)	
		Mean	Mean sig. only	Median	Median sig. only	Mean	Mean sig. only	Median	Median sig. only	Mean	Median
GFDI → UPGRADING	ECI	-0.068	-0.119	-0.080	-0.017	-0.117	-0.367	-0.050	0.367	-0.417	-0.445
	PCI	-0.016	-0.067	-0.034	0.109	-0.144	-0.359	-0.146	-0.345	-0.154	-0.254
	EXH	-10.848	-10.693	-11.404	-1.341	-18.025	-14.203	-21.260	-8.052	-78.048	-81.879
	EXL	3.086	3.908	3.583	0.270	4.730	8.791	6.931	8.791	9.559	9.332
APVD → UPGRADING	ECI	-0.079	-0.120	-0.087	-0.011	-0.110	-0.168	-0.071	-0.211	-0.383	-0.320
	PCI	-0.045	-0.066	-0.058	0.061	-0.120	-0.461	-0.032	-0.445	-0.190	-0.031
	EXH	-9.128	-8.602	-9.226	-1.575	-22.717	-25.065	-21.713	-20.044	-76.997	-83.651
	EXL	4.128	4.507	3.579	0.376	6.958	8.033	7.579	8.289	14.806	14.939
FCR → UPGRADING	ECI	0.018	0.028	0.025	0.016	-0.025	-0.137	-0.015	-0.137	-0.203	-0.052
	PCI	0.071	0.059	0.039	0.058	0.041	0.051	0.015	0.048	0.108	0.128
	EXH	0.969	1.866	-1.188	-0.377	4.384	5.852	3.996	8.504	15.626	15.299
	EXL	0.107	0.160	0.270	0.376	0.869	0.682	0.282	0.359	3.739	6.205
NFDI → UPGRADING	ECI	0.060	0.080	0.057	0.089	0.016	-0.152	-0.009	-0.152	0.209	0.101
	PCI	-0.037	0.034	-0.020	0.018	0.059	0.221	-0.008	0.221	1.264	0.139
	EXH	7.152	8.669	7.275	8.414	12.458	13.550	12.432	12.931	45.746	46.294
	EXL	1.131	1.204	1.058	1.341	3.298	1.621	1.974	1.272	7.770	5.289
LFS → UPGRADING	ECI	0.034	0.072	0.024	0.045	0.016	N/A	0.005	N/A	0.065	-0.026
	PCI	0.063	0.070	0.063	0.064	-0.006	0.013	-0.006	-0.026	0.171	0.171
	EXH	-0.148	-5.988	1.476	-6.292	-2.327	-9.104	0.640	-6.325	46.071	-1.671
	EXL	0.226	0.373	0.226	0.398	1.621	1.882	1.621	1.402	-4.327	-4.327
UNhigh → UPGRADING	ECI	0.025	0.025	0.021	0.031	0.009	0.054	-0.003	0.086	0.060	-0.021
	PCI	0.064	0.165	0.064	0.181	-0.020	0.438	-0.020	0.438	0.099	0.099
	EXH	-0.020	2.870	1.026	2.419	-1.664	2.380	1.365	2.190	52.862	2.888
	EXL	0.262	0.181	0.262	0.034	1.439	1.177	1.439	1.502	-4.325	-4.325
UNlow → UPGRADING	ECI	0.022	0.006	0.019	0.021	0.005	-0.006	-0.006	0.083	0.052	-0.032
	PCI	0.064	0.167	0.064	0.150	-0.027	0.452	-0.027	0.452	0.066	0.066
	EXH	-0.087	3.793	1.026	3.187	-2.401	0.789	0.578	2.545	51.399	0.012
	EXL	0.298	0.610	0.298	0.542	1.403	1.402	1.403	1.605	-4.427	-4.427

Notes: As per Table 4.2.

There is greater evidence of factor flow influence using the high- and low-tech export measures EXH and EXL. FDI inflows exhibit a pronounced bias towards low-tech exports, with a standard deviation increase in gross FDI (approvals) reducing high-tech exports by US\$10.7-21.2 billion (US\$8.6-25.1 billion) after five and US\$78-81.9 billion (US\$77-83.7 billion) after 15 years. A similar shock increases low-tech exports by US\$3.1-3.9 billion (US\$3.6-8.3 billion) and US\$9.3-9.6 billion (US\$14.8-14.9 billion) respectively. Interestingly, net FDI is positive for both with a much higher impact on EXH (US\$7.2-13.6 billion short- and US\$45.7-46.3 billion long-term), though the long-term results appear skewed by a small number of specifications. New companies also appear associated more with high-tech exports, with a short-term (long-term) increase of up to US\$8.5 billion (US\$15.6 billion) for EXH. Documented migrants favour low-tech export growth and mostly in the short-term. The results for undocumented migrants, which are relatively robust, are surprisingly positive in modestly boosting short-term EXH more than EXL. Long-term, undocumented migrants are found to reduce EXL and increase EXH, though the mean and median coefficients for EXH differ dramatically.

Summarising the evidence of the effects of factor flows on upgrading:

- Influence on overall complexity is limited but tilted positive for migration and negative for FDI inflows. Manufacturing-specific PCI follows a similar pattern but with a more robustly evidenced positive relationship for documented migrants;
- FDI inflows appear strongly biased towards low-tech export industries, whereas FDI outflows appear relatively high-tech for Malaysia's development. The net result suggests inflows are particularly detrimental if they crowd out high-tech local firms;
- Immigration may temporarily forestall complexity increases but the long-term outlook is positive. Undocumented migration contributes unexpectedly positively to complex exports. Formal migrants by contrast appear to favour declining industries; and
- New foreign company registrations favour high-tech exports.

Other variables and industrial upgrading

To contextualise relative factor flow contributions, this section briefly highlights the findings for the other variables (Table 4.5).

Both education measures (HCI and EDUA) contribute positively to long-term improvements in overall complexity. HCI (years of schooling) also appears to underpin overall export growth, boosting both EXH and EXL. EDUA (highest education completion) on the other hand appears biased slightly towards low-tech exports. That is, increased schooling has supported Malaysia's export competitiveness, but wider educational attainment has not delivered similar gains. However, EDUA displays a long-term relationship with PCI that suggests increased manufacturing complexity specifically depends more on higher education.

Institutional improvements also appear to increase economic complexity, despite relatively modest changes over time. The pattern is most evident in the export values specifications, with liberal democracy improvements favouring EXH and discouraging EXL — the largest positive difference of any variable.

Table 4.5: Upgrading summary results for other variables

	MODEL	VAR	Diff/VEC	+ve	-ve	insig	coin.
HCI	ECI	100%	23%	83%	6%	11%	63
	PCI	31%	18%	30%	29%	41%	33
	EXH	76%	29%	51%	21%	28%	94
	EXL	55%	29%	53%	18%	30%	97
EDUA	ECI	69%	16%	68%	12%	21%	78
	PCI	14%	6%	45%	17%	38%	87
	EXH	71%	20%	33%	37%	29%	102
	EXL	47%	11%	42%	12%	46%	78
LIBDEM	ECI	13%	5%	48%	34%	17%	58
	PCI	48%	11%	35%	30%	35%	69
	EXH	23%	0%	65%	10%	25%	96
	EXL	13%	2%	17%	59%	24%	116
RGDP	ECI	24%	7%	41%	35%	23%	82
	PCI	35%	17%	41%	34%	24%	70
	EXH	63%	42%	43%	23%	35%	110
	EXL	80%	40%	33%	49%	18%	98
CAPSTK	ECI	43%	28%	46%	17%	37%	52
	PCI	53%	21%	49%	16%	34%	79
	EXH	59%	29%	66%	14%	20%	91
	EXL	76%	57%	50%	19%	32%	113

Notes: As per Table 4.1.

A higher capital stock supports upgrading, with long-term increases evident across all four measures. The results are strongest for EXH, consistent with expectations that high-tech exports are influenced by capital deepening more than low-tech, labour-intensive manufactures. The real GDP results are only marginally positively associated with complexity improvements.

The overall evidence points to increased educational attainment, institutional improvements and capital deepening having contributed to industrial upgrading in Malaysia, with domestic reform stagnation requiring greater attention than factor flows in explaining recent trends.

Discussion

The overall weight of evidence suggests positive relationships (or complementarity) between factor flows featured significantly in Malaysia's development. FDI inflows, foreign company registrations and immigration appear mutually reinforcing, albeit with some differences across specific relationships and time. Policy and public discourse linking FDI and immigration appear well founded though somewhat misunderstood.

The perception that the relationship runs from migration to FDI is not without basis, but the reverse relationship — that FDI is associated with increases in migration — appears larger and the correlation and covariance evidence stronger. A particularly important nuance is evidence of distinct complementarity channels between documented migrants and new (approved) investment and companies, and separately undocumented migrants and gross investment inflows. The initial decision to invest may largely be influenced by formal foreign labour availability (including expatriate transfers). Established investors gain familiarity with the local labour market and utilising undocumented migrants encourages further investment.

That the relationship is more significant from FDI inflows to migration suggests the activity created by investment — directly and through domestic spillovers — attracts more migrants. The results suggest a persistent influence that extends well beyond the formal visa period and a ratio of undocumented to documented migrants attracted of four or five to one. Compared

to the ratios underpinning the undocumented population estimates used in this chapter (varying across time but in the two and a half to three and a half range recently), gross FDI (approvals) is associated with an above (below) average share of undocumented migrants. Detailed information on foreign company employment is required to explain this discrepancy, but it may indicate lesser immigration enforcement targeted at established foreign companies.

The net FDI and gross FDI results together indicate the complexity and competitiveness trade-offs illustrated in Chapter 3's three-country representation. Migration appears to support gross inflows but is negatively related to net inflows, suggesting outwards investment is an important but neglected aspect of the equation. Far from discouraging investment relocation outwards, foreign labour inflows may even be encouraging it on net as relatively complex industries or investors are crowded out.

While most countries' investment promotion agencies have investment dollar targets, Malaysia expresses key goals in terms of new companies attracted (such as InvestKL's earlier target of 100 major multinational companies attracted in the 10 years to 2020). The results suggest foreign labour increases foreign company registrations, with documented migrants four to five times more influential than undocumented migrants. Together with the positive relationship with investment approvals it suggests the formal migration system is integral to new investors' decisions. Established investors' decisions contrastingly appear more closely aligned to undocumented migrant availability. Promotion efforts targeting new investment therefore benefit from accommodative migration policies.

The results provide no support for perceptions that immigration detracts from industrial upgrading and is behind the recent stagnation. Factor flow influence overall appears limited relative to other potential determinants, including long-term educational, institutional and capital deepening.

The evidence also counters perceptions that foreign investment not labour supports upgrading. At least in Malaysia's experience, FDI inflows have negative or no influence on economic complexity. An intuitive explanation is that greater volumes of investment flow into less-complex established industries, boosting and sustaining their export competitiveness. Reinvestment has not supported upgrading into new areas of competitiveness, or investments in complex products have failed to establish global competitiveness. New foreign companies contrastingly display positive long-term associations with increased manufacturing complexity and relatively high-tech export volumes, though with a lagging impact on competitiveness. That net but not gross FDI supports complexity increases suggests inflows are beneficial when they do not crowd out relatively complex domestic firms.

Different investor types face different trade-offs, including disincentives for existing investors to incur new fixed costs (for major capital upgrades) unless they are necessary/beneficial. Labour costs alter these incentives but are one of many potential contributors to upgrading decisions. Labour quality also matters, with the results suggesting investment outflows may be comparatively complex, akin to Malaysia's labour exports. The once positive but recently negative influence of education on upgrading is likely important here.

Documented migration appears to have contributed to upgrading manufacturing, the sector central to Malaysia's development story. Both documented and undocumented migration also exhibit positive relationships with long-term growth in relatively complex exports. Short-term

inflows appear to boost expanding industries regardless of complexity before supporting relatively complex industries over the long-term, contrary to popular perceptions.

The evidence here suggests blaming migrants for the recent industrial upgrading stagnation detracts from greater concerns in other policy areas. Human capital deficiencies are an oft cited concern among existing and potential investors, with Malaysia struggling to take the leap from solid basic education provider to advanced skills developer (e.g. Khazanah Research Institute 2018). In respect of institutions, Malaysia has a stable democracy with few regulatory barriers to business entry but is afflicted with corruption and extensive government ownership (Gomez et al. 2018; Kaufmann and Kraay 2019; World Bank 2020a).

The nexus between formal foreign labour and company registrations appears the most promising and best evidenced potential channel within the factor flow space. Improving formal migration channels may help attract investment associated with industrial upgrading. Malaysia's strict expatriate hiring quotas, uncompetitive visa conditions and almost non-existent pathways to residency and citizenship may be limiting factor flow contributions to complexity development. Potential human capital and productivity gains — and therefore opportunities to increase operational complexity — through upskilling migrant workers are forgone under a strict short-stay system.

The evidence surrounding FDI inflows not improving complexity cast doubt on incentive schemes providing long-term tax relief and other concessions for investments in relatively low-tech industries. Better targeting incentives to more complex sectors or redirecting funds to domestic reform priorities appears necessary to encourage desirable firm entry.

While evidencing important links between factor flows and economic complexity in Malaysia, the results should be interpreted cautiously. Data availability and Malaysia's youthfulness as a country mean a small sample size for analysis, which influences the aggregate modelling approach over a single optimal specification. It also restricts the maximum lag length to five (years), which potentially impacts longer-term variables like foreign company registrations, education and liberal democracy and prevents deeper analysis of temporal changes.

While the sheer number of model specifications eliminates the risk of advancing a single unrepresentative model, aggregations are not immune from errors. Averaging across specifications with differing controls is not the same as controlling for each of these factors simultaneously. Care is therefore taken to acknowledge that average effects are more likely to capture indirect or confounding effects than strict causal models.

The measures of economic complexity are based on exports and therefore tied to the global competitiveness of industries, further emphasised by excluding net import sectors from PCI, EXH and EXL. The results therefore reflect Malaysia's export complexity not its overall industrial complexity. The two should be closely related in a globally integrated economy like Malaysia and a comparative advantage framing is better suited to factor flows, but the distinction is acknowledged.

The OEC's economic complexity measure is not without criticism, as scarcity may not reflect high-value industries in a production difficulty sense (it could instead reflect highly concentrated but modestly complicated industries with significant entry barriers). The limited granularity of sector classifications may also disguise sub-sector complexity, particularly in the highly specialised world of global production sharing. Measurement limitations make this problem insurmountable.

Malaysia's experiences likely differ from those of other countries, but the findings should nonetheless prompt pause for reflection on policy biases in countries with similar characteristics (middle income, large immigrant populations, globally integrated etc.).

Conclusion

This chapter has empirically examined long-held beliefs surrounding the relative contributions of FDI and migration to development and industrial upgrading in Malaysia. The results of the modelling show positive bidirectional relationships between migration and FDI (factor flow complementarity) with the dominant direction differing by variable. Greater FDI inflows encourage immigration more so than the reverse, with stronger results for undocumented migration suggesting existing investment and undocumented migration are more closely linked. Migrant inflows — particularly documented migration — encourage investment approvals and new company registrations indicating a formal migration channel supportive of new investors and investments. Evidence that factor flows influence industrial upgrading is less compelling than for domestic characteristics (human capital, institutions and physical capital). The results nonetheless contradict popular perceptions by finding relatively positive associations with increased complexity for migrants and foreign companies compared to FDI inflows.

Popular perceptions and policies based upon them are unsubstantiated. Rather, education system and institutional reforms should be the focus of Malaysia's industrial upgrading efforts, with immigration policies and investment incentives reoriented to attract investors in new, more complex industries.

Malaysia's experience suggests migrant and capital inflows can be mutually reinforcing, highlighting in particular the less explored relationship from FDI to migration. It also evidences a need to better understand the intersection of foreign investors and undocumented migrants, an undertaking that requires further innovative efforts to improve data availability. And it tempers arguments around foreign factor influence that neglect the supporting or inhibiting context of evolving domestic factor influence.

The influence of Malaysia's migration and FDI policies on factor flows and economic development is explored further in Chapter 7.

Chapter 5

Australia's increasingly skilled, diverse and temporary migration, capital inflow and development

Synopsis: Persistent net inflows of migrants and FDI have supported Australia's post-World War II economic development. Yet the relationships between migration and investment flows and Australia's policies have not been fully explored, and there are gaps in our understanding of their contributions to economic development. This chapter examines three substantial historical shifts in migration policy — that saw Australia prioritise a more skilled, diverse and temporary migrant intake — and their relation to FDI inflows and economic outcomes. VEC modelling — preferred because preliminary testing identified cointegration among variables — indicates all three shifts increased long-term positive covariance between migration and FDI inflows, reflecting convergence around an economic framing guiding migration and FDI policy formulation. However, while the changing composition of the migrant intake supported FDI inflows, the outcomes for key economic variables including unemployment, wages and per capita incomes have been mixed. The findings suggest a more temporary, skilled and diverse migrant intake increases complementarity of factor flows but may create broader economic trade-offs for policymakers to consider.

Introduction

As a country whose modern history featured significant and sustained net inflows of both migrants and FDI, Australia represents an important case study into how migrant and capital inflows could complement each other. Australia has been relatively welcoming to both migration and foreign investment throughout the post-war period but has made substantial policy shifts, both liberalising and tightening, affecting migrants and investors over this period. This chapter explores how three transformative shifts in migration policy — that made Australia's migrant intake significantly more skilled, diverse and temporary (Hugo 2014a) — impacted FDI inflows and broader economic outcomes. It seeks to establish whether these major migration policy shifts — each at least in part motivated by a desire to increase the net economic benefit from migration — helped attract additional investment and boost economic outcomes. On balance these changes could be expected to do both, as more skilled migrants selected on economic criteria from a wider array of source countries should deepen labour supply and quality and create links to more countries, attracting a greater range of potential foreign (and domestic) investments. However, prioritising short-term employer-sponsored migration may also discourage long-term investment and entrepreneurship by migrants; making the net effect an open empirical question.

This chapter seeks to answer this question using a purpose-built dataset for the period 1946-2019 and measures of the cultural diversity and skill share of the migrant intake and the character of migration and FDI policies (introduced here and detailed more specifically in Appendix B). Relationships between migration and FDI variables are tested using VEC modelling, which is appropriate for time series data with continuous and cointegrated policy and other variables of interest. A mixture of full sample and pre- and post-reform splits are examined to identify the impacts of intake upskilling, temporariness, and diversification of

migration on FDI; and in turn what this means for economic outcomes like labour markets, capital and income growth.

The following section provides context surrounding Australia's history of and policies towards migration and FDI before the third section outlines the data and methodology. The fourth section discusses and interprets the results for each policy shift before a concluding section summarises key findings and their relevance to the argument of the thesis.

Background

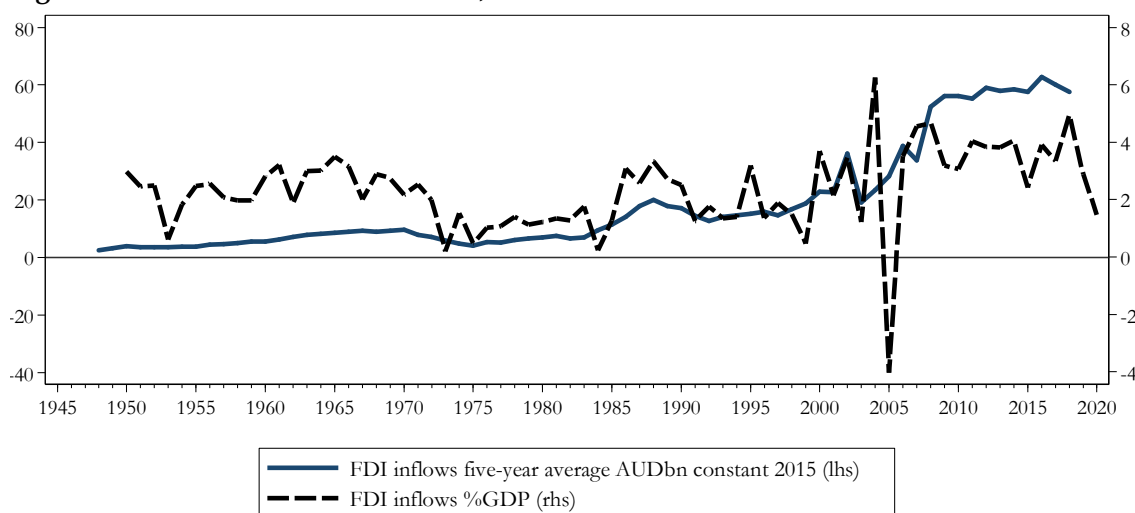
Chapters 2 and 3 set out the literature from which the interest in the relationship between international labour and investment flows derives and a framework for considering interlinkages between labour and investment flows, country characteristics and policies. This section supplements this with Australia-specific context.

Factor flows and Australia's post-war development

Australia's post-World War II economy experienced rapid growth as abundant land and natural resources were combined with substantial growth of the labour force through migration and capital through foreign investment. Migration and FDI inflows are embedded in the narrative of Australia's national development and widely considered major contributors to its trajectory, alongside favourable institutions (including rule of law and property rights), openness to trade and a stable social and political climate (Pope and Withers 1993; A. Moran 2005; McLean 2013; Hugo 2014a; Carter and Sutch 2013).

Australia experienced net FDI inflows for all but three years during this period and positive gross inflows in every year bar one (the exception being a consequence of News Ltd's reincorporation in the United States following the Australia-United States Free Trade Agreement's entering into force). Five-yearly average FDI inflows have followed an upward trajectory with large jumps in the early 1980s and from the late 1990s to 2008, exceeding \$60 billion around 2015 (Figure 5.1). Until around 2019, Australia consistently recorded a current account deficit and surplus of net investment over savings averaging around four percent of GDP (N. Adams and Atkin 2022).

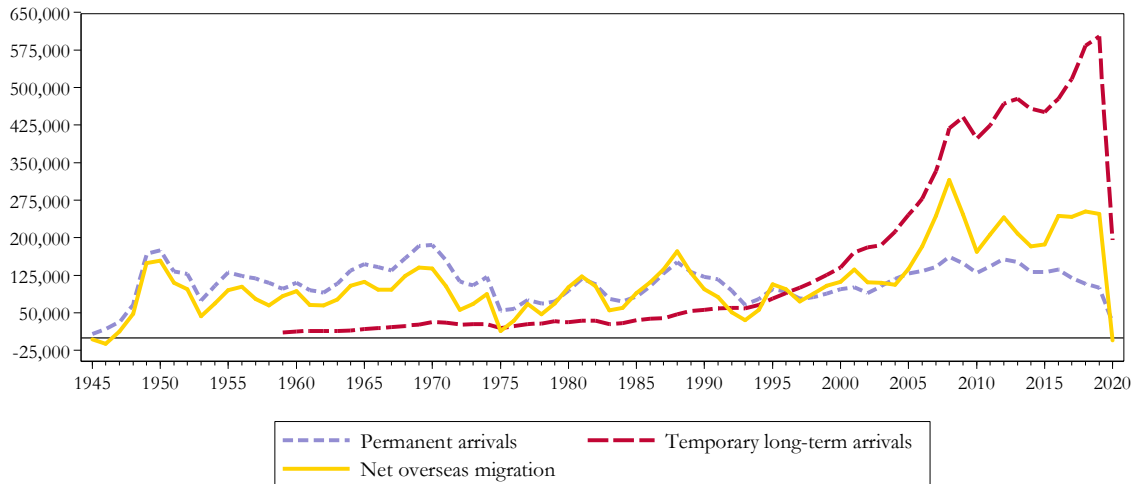
Figure 5.1: FDI inflows into Australia, 1945-2020



Sources: UNCTAD 2021; World Bank 2021; Department of Foreign Affairs and Trade (DFAT) 2021; RBA 2021.

Prior to the COVID-19 pandemic, Australia recorded net immigration in every year since 1947; averaging almost 117,000 net additions per year (Figure 5.2). Immigration before the mid-1990s was driven overwhelmingly by permanent arrivals, whereas since then it reflects a mix of permanent and temporary additions.

Figure 5.2: Migration flows into Australia, 1945-2020

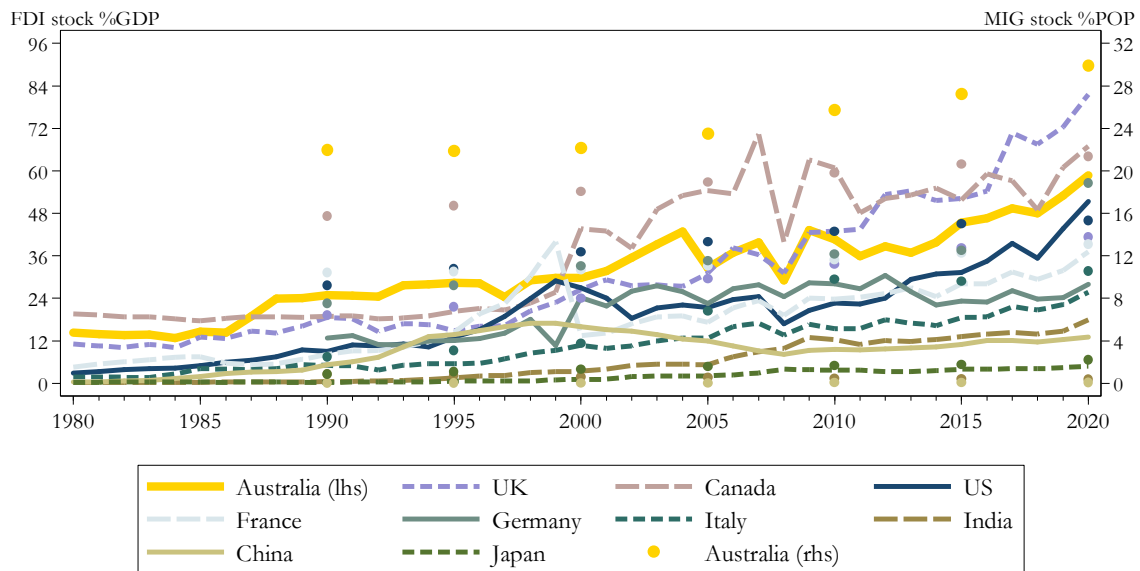


Sources: Australian Bureau of Statistics (ABS) 2019; Department of Home Affairs 2020; ABS 2021c; 2021d).

During the 1990s, Australia's FDI stock as a share of GDP and migrant stock as a share of population exceeded that for all of the ten largest economies (Figure 5.3). The penetration of both factors has continued to increase until today, reaching around 59 of GDP for FDI and 30 percent of population for migrants; now third and first against large economies.

Immigration and FDI policies have followed quite contrasting trajectories despite the pattern of inflows for both factors. The review of documentary evidence underpinning this thesis' policy indicators uncovered little sign of coordinated FDI and migration policy formulation at any point in Australia's modern history (for example, a granular review of parliamentary debate on migration policies and flows found almost no reference to FDI policies and flows, and vice versa). Inflows of each have been achieved through distinct approaches towards differing objectives, only loosely grouped under an overarching pro-development framing. FDI policy has been primarily framed within a long-term economic development context, whereas migration policy has been influenced by a mix of short- and long-term objectives, introducing the volatility that this approach entails. For example, unemployment shocks have shaped migration debate and policies much more than they have FDI, despite additional capital potentially alleviating reduced labour demand during such shocks.

Figure 5.3: FDI and migrant penetration, Australia versus large economies 1980-2020



Sources: United Nations Conference on Trade and Development (UNCTAD) 2021; UN Population Division 2021.

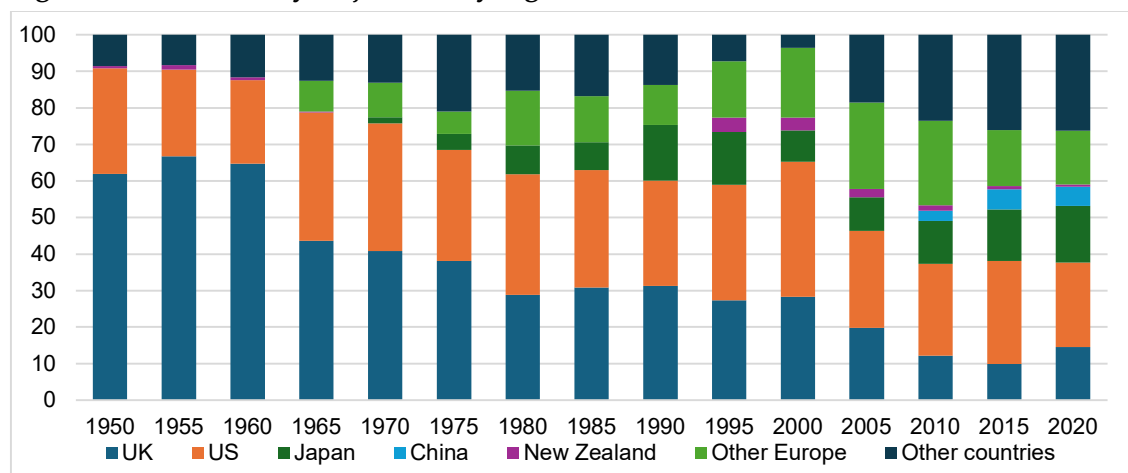
Rapidly increasing Australia's population for security and economic reasons (under a 'populate or perish' mantra) was a leading priority of the immediate post-war period, with British and Western Europeans preferred as migrants to maintain cultural and ethnic homogeneity (Hassam 2007). As Australia struggled to meet its population targets and sought to carve out an identity distinct from Britain, it began on a path towards diversification of its migrant intake that began with the unwinding (1966) and ultimate abolition (1973) of the 'White Australia' policy and more complete moves to eliminate migrant discrimination (1983) (Hugo 2014a). By the late 1980s the purpose and framing of the migration programme had shifted away from population growth and family reunion to economic objectives, with emphasis placed on migrant skills selection (under an evolving points-test system¹²) (Jupp 2002; Hawthorne 2005). There was a move towards prioritisation of migrant labour's filling 'skills deficits and shortages' from the mid-1990s, with temporary migration soon overtaking and vastly exceeding permanent migration. The other profound shift has been an increasingly securitised approach to refugees and asylum seekers, as border control was given primacy — especially since 2001 (Humphrey 2013).

The prevailing narrative underpinning the evolution of migration policy emphasises sovereign determination and selectivity. Border security has been strengthened to limit unauthorised arrivals and entry criteria tightened around higher skills, narrower family relationships and greater willingness (and ability) to pay alongside broadening the migrant intake. Additionally, policies have permitted greater numbers of 'economic' temporary entrants but afforded them fewer rights, while maintaining a consistent stream of permanent migrants for whom support for integration has become increasingly sophisticated (though not always more generous).

¹² The first Australian points-test preceded the emphasis shift by about 15 years, but for a modern explainer see Hoang 2016.

Australia's FDI stock was dominated by British investment in the immediate post-war period, mirroring colonial influence on immigration. Diversification began in the 1960s as a wave of US investment joined increased flows from Britain, but it was not until the 1980s before the next substantive shift came in the form of Japanese investment (Figure 5.4). US investment continued strongly throughout the post-war period and was supplemented by a diversification of European sources, with the final substantive wave (since the late 2000s) coming from China. Each wave was met with public antagonism that occasioned some policy tightening (Drysdale, Armstrong, and Thomas 2015; Productivity Commission 2020).

Figure 5.4: FDI stock by major country/region, 1950-2020

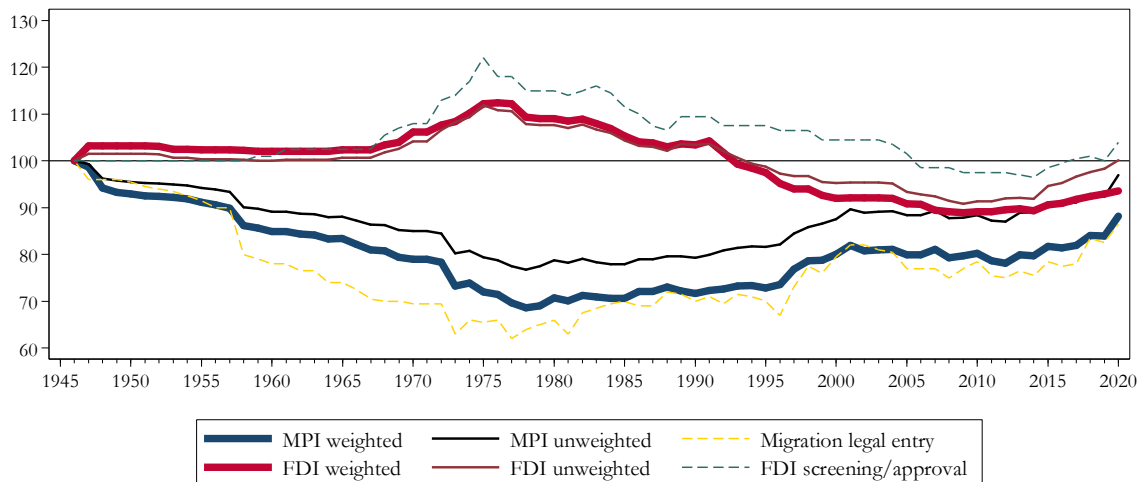


Notes: New Zealand data is not available from 1970-1990 (included in 'Other countries') and the split between 'Other Europe' and 'Other countries' may not be perfectly consistent over time due to reporting changes.

Source: Author calculated from historical ABS time series (ABS 2022) and foreign investment reports.

Australia's FDI policies began from a position almost diametrically opposed to contemporary settings. Foreign capital inflows were primarily regulated through foreign exchange controls until the early 1970s before controls were eased during the 1970s and early 1980s (Debelle and Plumb 2006). However, rising concerns about foreign capital dependency prompted the introduction of a prior approval (screening) mechanism and Australian equity participation requirements, with the introduction of the Foreign Takeovers Act in 1975 marking the peak of post-war policy stringency (Australian Treasury 1999). While far from a smooth or linear process, the early 1990s to the mid-2000s saw significant FDI policy liberalisation including the substantive elimination of equity restrictions, an increasingly facilitative screening mechanism exempting low value transactions, and privatisation efforts that reduced barriers to entry. Policies have tightened since then as business and land screening mechanisms became increasingly politicised and securitised, largely in response to changes in the type of investor (more Chinese and state-owned enterprises) and investment (more 'critical infrastructure' sales). According to policy indicators developed for this thesis (discussed below), FDI policies have returned to a level of stringency similar to where they began 75 years before, though less strict than the 1975 peak (Figure 5.5).

Figure 5.5: Diverging migration and FDI policies, 1945-2020



Note: MPI = overall migration policy indicator; FDI = overall FDI policy indicator; the weighted measures give greater primacy to certain sub-indicators (such as equity restrictions for FDI and legal entry for migration) whereas the unweighted indicator averages all sub-indicators equally.

Source: Author.

The benefits of additional FDI to economic expansion have been central to the narrative underpinning FDI policies. But much like migration, sovereignty and selectivity have commanded varying degrees of emphasis over time. Sovereignty is most prominently captured in a national interest test that proposed investments must not be contrary to in order to proceed, and more recently through a supplementary national security test (Foreign Investment Review Board 2022). Unlike migrants who must prove they meet positive criteria associated with benefits to Australian society and economy, foreign investments must only not offend exclusion criteria (a lesser though somewhat opaquely defined threshold) and selectivity has been less strictly enforced historically. There is also no explicit quota for FDI whereas permanent migration is subject to an annually determined target. Migration and FDI policies appear separately administered towards distinct objectives, except where they directly intersect (most prominently in respect of visa requirements for residential real estate investment).

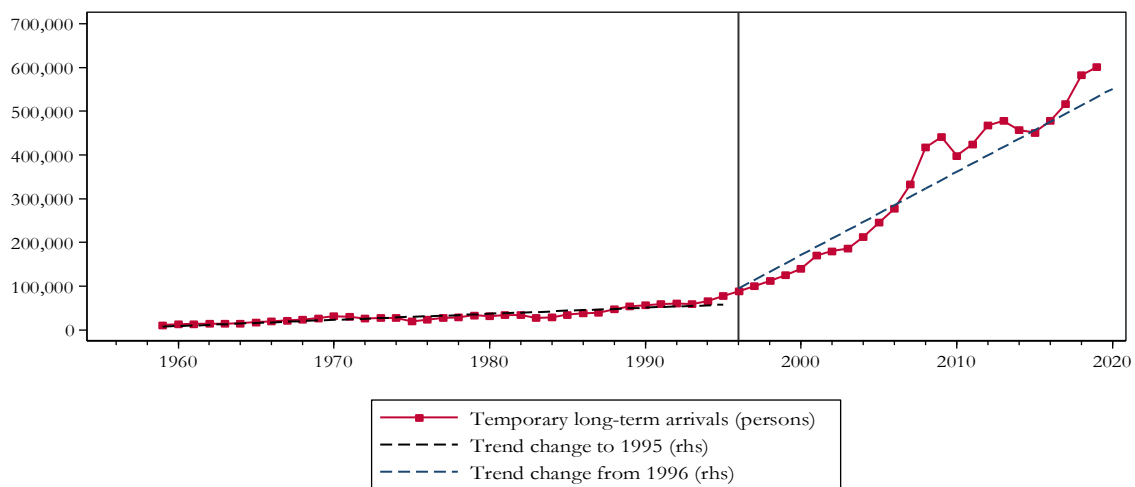
Major migration policy shifts

Australia has accommodated a substantial migrant population throughout the post-war period without significant social or economic upheaval, with its experience providing a leading reference point for countries hoping to replicate its success (Wright et al. 2016). While not without critics or areas for improvement, Australia's policies have relatively successfully orchestrated a shift to a more diverse, skilled and dynamically targeted migrant intake.

There are numerous dimensions by which success can be measured however, and relatively little evidence supporting popular claims, with the outcomes of Australia's seismic migration policy shifts requiring further examination. The three shifts in the character of migration considered here are the rising dominance of temporary migration, the increasing emphasis on selecting migrants with desirable skills (vis-à-vis relationships with Australian residents), and the move from a relatively homogeneous to a diverse intake (Khoo, Hugo, and McDonald 2011).

Temporary migration was a relatively minor element of Australian migration for at least four decades after World War II, with Australia prioritising permanent settlement and opposed to temporary labour. Prior to the mid-1990s, most temporary long-term arrivals (not tourists or other short-stay visitors) were sponsored students, temporary transfers of foreign company employees or family members of Australian citizens. That changed dramatically after the ‘Roach report’ — commissioned to recommend ways to smooth the process of intra-company transfers — suggested the creation of a temporary skilled visa (CEDA 2019). The ‘457’ visa was introduced in 1996, and while designed to fill ‘temporary’ skills shortages during which local workers could be trained, it would soon become a labour market fixture filling longer-term deficits in areas like trades and services (Mares 2013). Temporary (long-term) arrivals averaged under 33,000 per annum up until 1995 and almost 330,000 per annum from 1996-2019, exceeding 600,000 prior to the COVID-19 pandemic (Figure 5.6).

Figure 5.6: Temporary migration to Australia, 1955-2020



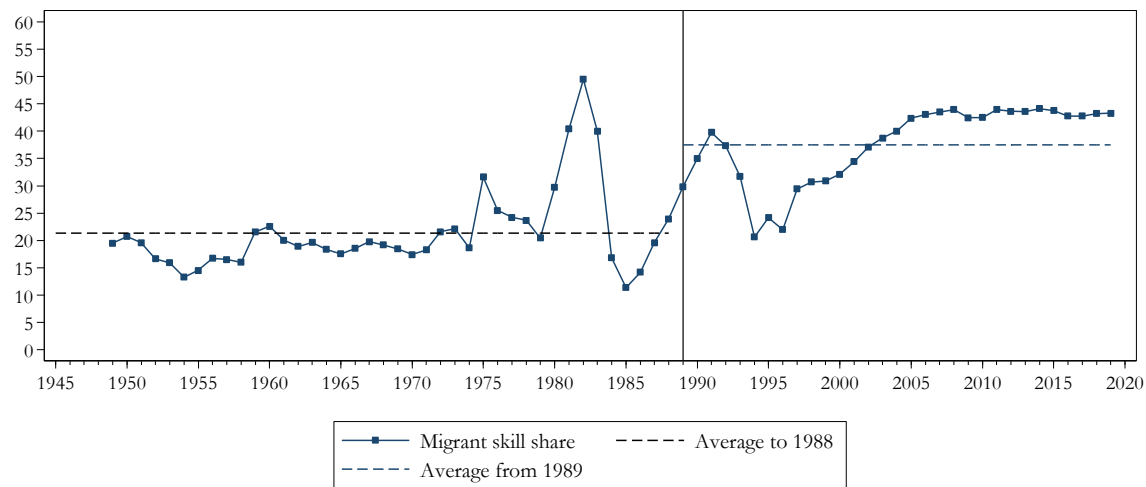
Sources: Australian Bureau of Statistics (ABS) 2019; Department of Home Affairs 2020; ABS 2021c; 2021d).

The rapid increase in temporary migration has divided opinion and its effects are contested. Detractors highlight consequent underinvestment in local upskilling, the exploitation of migrants, political and ethical questions surrounding migrant rights, and poor targeting affecting local employment (Mares 2012; Sarah Martin 2020; Tillett 2021; Boucher 2019). Advocates highlight the positive economic impacts including on labour markets, the budget bottom line and economic growth (Productivity Commission 2016; Breunig, Deutscher, and To 2017; CEDA 2019; Rizvi 2020). Links to foreign investment have not been analysed, apart from the Productivity Commission’s specific focus on investment visas (not the broader impacts of temporary migration on FDI).

Changes that increased the emphasis on migrant skills selection came about in the least definitive manner historically, reflecting more significant divisions between the major political parties. Australia’s relative development levels and settlement focus meant the early sample period (1940s to 1960s) involved little explicit skills focus and family migration was afforded greater priority. The debate around migrant selection began in earnest during the early 1970s, with the first ‘grading system’ underpinning entry introduced in 1973 (Hawkins 1991; Hugo 2014b). The Fraser Government placed further emphasis on skills in 1978, specifically for skilled independent migrants and distant relatives, but family reunion was

restored to prominence in the early Hawke years (from 1983). The watershed policy moment came in 1988, when the FitzGerald Report called for a drastic shift towards more economically beneficial migrants, with the points-based system introduced the following year (FitzGerald 1988; Australian Government 1989b). Points were assigned to aspiring migrants based on factors including their education, work experience, intended occupation, age and language proficiency (Hawthorne 2014). Skilled migration increased in the immediate post-FitzGerald Report period before decreasing in the aftermath of economic recession. The skilled migration share of the permanent intake has since increased significantly alongside the growth in temporary migration to average almost double that of the pre-reform period (37.5 versus 21.3 percent — Figure 5.7). Australia’s points-based system with employer participation is a common reference for skilled migration policy design (Koslowski 2014; Sumption 2019) and seen as successful globally (Czaika and Parsons 2017).

Figure 5.7: Permanent migrant skill share, 1949-2020



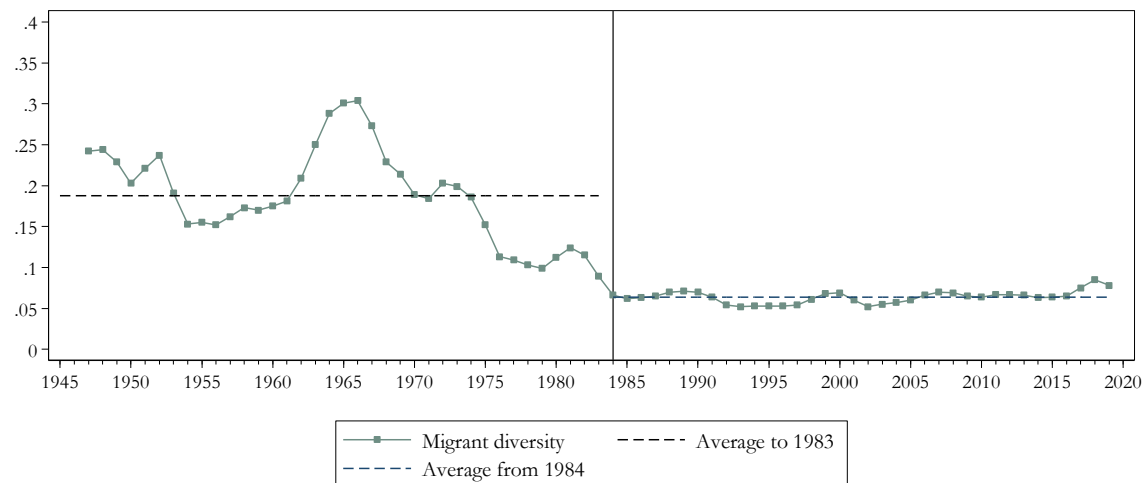
Sources: Author from Department of Immigration, various years.; Hugo 1986; Iredale 1997.

Increased skills selectivity is the most studied of Australia’s migration policy transformations. Higher migrant skills are linked to lower unemployment and higher labour force participation (Cobb-Clark 2002; Thapa and Gørgens 2006), with Australia’s superior foreign qualification recognition and demand (employer) driven system credited with delivering stronger migrant outcomes than its nearest competitor Canada (van de Ven, Voitchovsky, and Buddelmeyer 2014; Harrap et al. 2022). Alongside this however is evidence that skilled migrants face barriers in their specialist fields and often accept jobs below their qualifications (Junankar 2016; Ng et al. 2019) and caution that upskilling itself may only be marginally beneficial to the Australian economy (Robertson 2007). There are also concerns that migrant skills policies have enabled greater low-skilled entry through a variety of additional, less-regulated channels (Boucher 2016; Wright and Clibborn 2017; Boucher and Davidson 2019). The Productivity Commission’s review of skilled migration policies recommends further tightening of skills criteria to maximise the expected economic benefits of the migration programme (Productivity Commission 2016). As with the move to temporary migration, intake upskilling and FDI links do not appear to have been investigated in the Australian context.

Perhaps the most dramatic and transformative shift in migration was from opposition to the embrace of cultural diversity. There was significant reluctance to abandon the White Australia policy for two decades after World War II, with Australia’s colonial heritage still holding

primacy in migration policy formulation. Indeed, the first significant step towards its abolition came after a period of sharp reversal in post-war diversification, as authorities tried again to boost British migration (Hugo 2014a). The dismantling of discriminatory policies came in three steps (in 1966, 1973 and 1983) that are quite apparent in changes to migrant intake diversity (Figure 5.8). There have been numerous less revolutionary policy reforms since 1983 in areas including multiculturalism, migrant integration and citizenship by naturalisation, but their effects on intake diversity appear less pronounced.

Figure 5.8: Permanent migrant intake diversity, 1946-2020



Notes: Composite measure reflecting country of origin, linguistic and religious diversity. The lower the index value the higher the diversity of the permanent migration intake.

Sources: Author from Department of Home Affairs 2020; 2022; Australian Bureau of Statistics (ABS) 2022a.

Migrant diversity brings a mix of potential benefits and challenges. It offers a melting pot of varied ideas, experiences and networks that can underpin innovation and global connectivity, but it can also create linguistic and cultural communication difficulties that undermine these synergies (e.g. Ottaviano and Peri 2006; Kanbur, Kumar Rajaram, and Varshney 2011; Bove and Elia 2017; Arbatli et al. 2020). Diversity creates additional challenges for social, economic and political integration and cohesion that require more sophisticated policy measures. Australia's experience has been relatively successful overall, having managed diversification without major unrest (Australian Human Rights Commissioner 2016). Empirical evidence supporting this includes higher wage dividends in culturally diverse regions (Elias and Paradies 2016) and what Collins and Kunz (2007) call Sydney's ethnic entrepreneurship advantage. However, there remain concerns about the inferior labour market outcomes of migrants from non-English speaking and minority backgrounds (Hawthorne 2005; Colic-Peisker 2011; Kostenko, Harris, and Zhao 2012). The rise of temporary migration and stricter citizenship criteria are also identified as threats to maintaining support for diversity (Castles, Hugo, and Vasta 2013). Aside from one paper advocating multiculturalism as Australia's global competitive edge (Ng and Metz 2015), including to attract FDI, there is no empirical research linking migration diversity to FDI in Australia.

All three shifts in Australia's migration policy have potentially positive and negative impacts on FDI. The upskilling of the migrant intake is the most firmly expected to increase FDI, on the evidence of earlier research that links skilled migration and FDI, although a poorly

targeted or excessive skills and employment (over entrepreneurship) focus may have counterproductive effects. Diversification potentially facilitates links to new investment sources and a more diverse labour force, but also dilutes migration from major investor countries and creates labour market integration challenges. Greater temporariness of the migrant intake supports additional intra-company transfers and helps fill labour market gaps, however it provides lesser certainty for long-term investment decisions, may discourage upskilling and may favour incumbent over new firms. The direction and magnitude of the effects is an empirical question, with the next section explaining the investigation approach.

Data and methodology

The objective of the analysis here is to test empirically the influence of shifts in migration policy on the relationship between migration and FDI flows and the consequences for Australia's economic outcomes. To do this, a time series dataset combining primary and secondary data is constructed, for the period 1945-2020 and including a large number of migration, FDI, economic and policy variables.

Migration variables from Australian Government datasets include permanent and temporary (long-term) arrivals, net overseas migration (NOM), and the skill share of the permanent intake (Australian Bureau of Statistics (ABS) 2019; Department of Home Affairs 2020; ABS 2021c; 2021d). The skill share measure (MSS) is a compilation from several official sources and should be interpreted with caution despite best efforts to maintain a consistent definition amid numerous historical changes in the categorisation of the migrant intake (Department of Immigration, various years; Hugo 1986; Iredale 1997).

An FDI inflows variable (at constant 2015 national prices) uses UNCTAD and historical Reserve Bank of Australia (RBA) data (UNCTAD 2021; World Bank 2021; Department of Foreign Affairs and Trade (DFAT) 2021; RBA 2021) and reflects a moving five-year average to eliminate lumpiness from large transactions.

Following the approach set out in earlier chapters, additional variables include real GDP per capita and capital stock (at constant 2015 national prices; Maddison 2010; Feenstra et al. 2015; World Bank 2021), human capital index (Feenstra et al. 2015), a higher education metric (undergraduate and postgraduate student enrolments as a share of population — with postgraduates double-weighted (from Department of Education, Skills and Employment 2021b; 2021c; 2021a)), institutions indexes (Coppedge et al. 2021; Pemstein et al. 2021), a technology index combining fixed telephone lines (until 2001), mobile phone subscriptions and internet users per population (World Bank 2021; NBER 2021; DataReportal 2021), trade as a proportion of GDP (DFAT 2021), unemployment rates and average weekly earnings for males (in constant 2015 dollars; (Withers, Endres, and Perry 1985; ABS 2021a; 2021b).

A migrant intake diversification measure (MCDI) is developed to quantify changes in the diversity of Australia's migrant inflows. It follows the most common method for measuring ethnic diversity and concentration generally — the Hirschman-Herfindahl Index (HHI) (Koopmans and Schaeffer 2013; Schaeffer 2013). Here the inverse of concentration is diversity; that is, lower index values represent higher intake diversity. The HHI is calculated by summing the square of individual source country shares of the permanent migrant intake and dividing by 10,000 to situate the results between 0 and 1. The measure combines country of origin, religious and linguistic diversity.

The dataset also includes a set of purpose-built quantitative policy indicators developed to support empirical analysis of policy influence. The variables codify legislative, regulatory and other formal changes to the policy environment facing migrants and foreign investors. The indicators are deployed more fulsomely in Chapter 6 to specifically assess the nuances of policy influence, where their inclusion in this chapter is to more rigorously account for policy's general influence in a way traditionally missing from analyses of factor flows.

An expanded methodological description is provided in Appendix B, but to summarise the policy indicator measures include:

- 1) Baseline policy indicators — providing the main metrics deployed in this thesis, these codify legislative, regulatory and formal policy changes to the ('on paper') policy environment for migrants and foreign investors. These include policy subcategories (for migration: legal entry and stay, exit, border control and integration; for FDI: equity/ownership restrictions, screening and approval, land ownership and other restrictions/nationalisation) and composite indexes using weighted and unweighted subcategory averages. The enumeration of policy changes reflects an assessment of whether each individual policy shift was more or less restrictive (from the migrant or investor perspective) and its broad magnitude (representing a minor, mid-level or major change) determined in historical context.
- 2) Parliamentary debate indicators — supplementary metrics that approximate the ('in practice') policy environment beyond formal laws and regulations. These measures recognise that the exercise of discretionary powers through informal or unpublicised rules, or at the changing whims of government ministers or officials, represents another layer to the policy environment beyond legal statutes. Direct measurement of discretionary powers is inherently difficult, with the proxy developed here reflecting an extensive codification of Australian Parliamentary Hansard (Sherratt 2021; Parliament of Australia 2021) records relevant to migration and FDI. The indicators are organised consistent with the baseline subcategories (plus a numbers/quota category for migrants and more/less category for FDI capturing generalised interventions). The indicator captures 'opposition' attitudes — interventions calling for change or information concerning existing policies by non-government parliamentarians or dissenting government members — with the idea that opposition pressure reflects broader policy sensitivity and influences discretionary decisions. Interventions are categorised as more or less restrictive (or neutral) and form two aggregate metrics: total interventions (direction neutral) and the difference between more and less restrictive interventions. The parliamentary indicators provide invaluable context for the qualitative analysis but are deployed sparingly in empirical work due to time and space constraints.
- 3) Attitude indicators — reflect the collection and codification of public polling/survey records to track changing attitudes across time. Australian governments and other stakeholders (including investors and migrants) are sensitive to prevailing attitudes, which therefore provide another reflection of 'in practice' hostility/favourability towards migration and FDI. The main measure is a migration attitudes indicator normalised between a range of 1 to -1. The FDI attitudes indicator is less sophisticated due to a dearth of surveying and inconsistent framing of questions. Raw data analysis suggests that the occurrence of polling is itself a proxy for the environment

(indicating relative hostility), so the FDI indicator is simply a dummy variable equal to 1 if a question was asked in that year (36 out of 75 years). This indicator is also mostly contextual but is deployed in some specifications and analysed specifically in Chapter 6.

For time series compiled from secondary sources, considerable care was taken to maximise variable consistency over time. Where it was necessary to combine series — usually combining pre- and post-1960 data — third datasets were used for comparison, smoothing and extrapolation. Prominent examples include the shift from book to market value for FDI, definitional shifts and the discontinuation of permanent departures data since 2007 for net overseas migration (arrivals data consequently preferred), and employment variable changes. Some older Australian datasets are also recorded in financial years and required conversion to calendar years.

The empirical methodology follows the traditional approach to VEC modelling, with preliminary testing to determine optimal lag length, stationarity, autocorrelation, stability, cointegration and error distribution (Shrestha & Bhatta, 2018). All variables are converted to logs for ease of interpretation and either first or second differences based on stationarity and unit root testing (Augmented Dickey-Fuller and Kwiatkowski, Phillips, Schmidt and Shin (KPSS) tests). Evidence of cointegration (based on Johansen tests) is commonplace, motivating the choice of VEC over VAR. The VEC specifications are run with multiple variable orders to identify different cointegrated relationship combinations, with impulse response magnitudes calculated using the specification ordered by decreasing exogeneity (Cholesky decomposition). Consistent with methodological choice, the results reflect Granger causality rather than strict causation (or ‘predictive causality’; Diebold 2017). The resulting relationships therefore reflect the predictive properties of the historical movement of variables over and above others in the system.

Owing to the large number of variables (particularly policy indicators) and, hence, possible model specifications, a substantial but far from exhaustive range of combinations is tested. For example, the aggregate migration (MBW) and FDI (FBW) policy indicators are deployed more completely than the sub-indicators. While the subsequent analysis is informed by a broader range of specification results, with average results reported, the preferred (most complete) models that are given most attention involve:

- For skill share (MSS) and diversity (MCDI) and FDI, a migration flow measure (MPA/MTA/MTOT), MBW and FBW;
- For migration flows (permanent arrivals (MPA) and temporary arrivals (MTA)) with FDI, MBW and FBW plus either:
 - Unemployment (UNE) and capital stock (CAP), as measures of relative factor scarcity; or
 - Education (EDU) and liberal democracy (LIB), following the global model in Chapter 3; and
- For MPA, MTA, MSS, MCDI and economic outcomes, FDI, MBW and FBW.

While the number of variables in each specification varies, the three variable equation is represented by:

$$\begin{aligned}\Delta \ln M_t &= \sigma + \sum_{i=1}^{k-1} \beta_i \Delta \ln M_{t-i} + \sum_{j=1}^{k-1} \theta_j \Delta \ln F_{t-j} + \sum_{m=1}^{k-1} \delta_m \Delta \ln E_{t-m} + \lambda_1 ECT_{t-1} + u_{1t} \\ \Delta \ln F_t &= \sigma + \sum_{i=1}^{k-1} \beta_i \Delta \ln F_{t-i} + \sum_{j=1}^{k-1} \theta_j \Delta \ln M_{t-j} + \sum_{m=1}^{k-1} \delta_m \Delta \ln E_{t-m} + \lambda_2 ECT_{t-1} + u_{2t}\end{aligned}$$

$$\Delta \ln E_t = \sigma + \sum_{i=1}^{k-1} \beta_i \Delta \ln E_{t-i} + \sum_{j=1}^{k-1} \theta_j \Delta \ln M_{t-j} + \sum_{m=1}^{k-1} \delta_m \Delta \ln F_{t-m} + \lambda_3 ECT_{t-1} + u_{3t}$$

Where M, F and E represent migration, FDI and economic and/or policy variables and ECT the error correction term (the remaining terms represent logs, lags, coefficients and residuals).

Most of the models are estimated using the entire sample period for which the variables have corresponding data, excluding 2020 to eliminate potential influence of the pandemic. Econometric testing did not reveal series breaks around other major historical events that could reduce the robustness of empirical analysis. The influence of migrant intake skill share and diversity are additionally explored through before and after period comparisons corresponding to the significant policy turning points (1988/1989 for skills and 1983/84 for diversity). That is, the effects of upskilling and diversification on FDI attraction and economic outcomes are considered by comparing period splits for each migration type (permanent/temporary). A similar exercise is not possible for temporary migration as the change occurred too late in the sample for statistically plausible analysis (around 1996/1997).

Results and discussion

Results for the relationships between migration and FDI variables across the overall sample period are presented in Tables 5.1 and 5.2 — in standard deviation and per unit shock terms respectively. Rather than providing the results of every specification individually, the tables present the preferred specification(s), the average, maximum and minimum impulse response across all specifications and the percentage of all specifications producing a statistically significant Granger causal relationship.

Tables 5.3 and 5.4 then provide equivalent standard deviation and per unit shocks for the migration and economic outcomes variables for the overall sample period. The results for intake temporariness, skills and diversity are discussed in the corresponding sections.

Intake temporariness

Intake temporariness effects are captured by comparing the results for permanent and temporary (greater than one-year stay, exclusive of short stay visitors) migrant arrivals. Transition pathways from temporary to permanent exist but represent an increasingly small share compared to those required to return home within a few years.¹³ Permanent migrants benefit from less constrained work rights, greater access to government welfare and additional integration support (Productivity Commission 2016).

Tables 5.1 and 5.2 show that the relationships between the migration flow variables (MPA and MTA) and FDI appear positive, with the magnitude significantly higher for temporary migrants in both standard deviation and per migrant terms. The long run effect of a standard deviation migration shock on FDI is almost 15 times larger for temporary compared to permanent migration, or about three times larger in per migrant terms. The reverse relationship is also larger and more consistently evidenced for temporary migration, with an extra \$1 billion in FDI increasing temporary arrivals by about 1 percent after 15 years. A more temporary migrant intake appears to boost FDI and vice versa.

¹³ An exact share is difficult to calculate given differences between migrant categories and dynamic cohort effects. The Review of the Migration System 2023 (Department of Home Affairs 2023, p98) depicts a sharply declining trend in temporary to permanent visa transitions, falling well below 10 percent in recent years.

Table 5.1: Migration and FDI relationships – per standard deviation shock

	MPA/MBW/FBW		MTA/ MBW/FBW	MTOT/ MBW/FBW	AVG	MAX	MIN	% LR	% COMB	
MSS → FDI	LR	0.49	0.97	0.90	7.59	66.30	-52.82	94.64	94.64	
	SR				7.79	16.57	-3.66	33.33		
FDI → MSS	LR		-6.95		3.72	59.00	-85.17	39.29	46.43	
	SR				8.85	11.29	1.93	23.53		
MCDI → FDI	LR	-4.77	-8.69		-3.33	34.05	-83.04	44.64	46.43	
	SR				-3.70	-3.70	-3.70	12.50		
FDI → MCDI	LR	-8.59		-4.70	18.83	65.29	-8.59	51.79	69.64	
	SR				5.45	22.17	-2.47	35.42		
		MBW/FBW/UNE/CAP		MBW/FPIBW/EDU/LIB		AVG	MAX	MIN	% LR	% COMB
MPA → FDI	LR	0.43		-9.10		4.23	54.00	-15.18	98.04	98.04
	SR					3.23	10.30	-8.58	14.29	
FDI → MPA	LR	-0.17				7.20	38.75	-6.01	15.69	35.29
	SR					-0.24	2.77	-2.62	22.45	
MTA → FDI	LR			31.94		59.96	151.41	1.23	66.67	66.67
	SR					12.54	12.54	12.54	2.78	
FDI → MTA	LR	-1.46		8.63		18.15	130.88	-13.95	92.16	93.44
	SR					10.86	17.87	5.12	8.33	

Notes: The numbers in the first three columns reflect the cumulative impulse response of a one standard deviation shock — in percentage terms after 15 years (LR) and five years (SR). The top row for these columns indicates the model controls (e.g. MBW — listed below). The darker green represents a statistically significant positive relationship at the 5% level; light green otherwise positive at the 10% level; darker red a negative relationship at the 5% level and pink at the 10% level. The subsequent three columns present the average, maximum and minimum response for all model specifications (not just those highlighted in the table). The final two columns indicate the percentage of specifications for which the relationship was found to be statistically significant (at the 10% level or better) in the long (15 years) and short run (five years) and combined for each of the specifications. Black squares indicate a single lag model (SR only) or a model that was not included in the analysis. For example, a standard deviation increase in the migration skill share (MSS) increases FDI by a cumulative 7.59% over 15 years according to the average across all specifications.

Legend: MSS (migrant intake skill share); MCDI (migrant intake diversity — inverse); MPA (migrant permanent arrivals); MTA (migrant temporary arrivals); FDI (foreign direct investment); Base (baseline model — no additional variables); MBW (overall weighted migration policy indicator); FBW (overall weighted FDI policy indicator); UNE (unemployment rate); CAP (capital stock); EDU/EDHCI (education — human capital index); LIB (institutions liberal democracy

index); RGDP (real GDP per capita); WGE (real wages); TECH (technology index); TRADE (trade %GDP); and EGALDEM (institutions egalitarian democracy).

Table 5.2: Migration and FDI relationships – per migrant/investment shock

		MPA/MBW/FBW	MTA/ MBW/FBW	MTOT/ MBW/FBW	AVG	MAX	MIN	% LR	% COMB	
MSS → FDI	LR	0.05	0.09	0.08	0.70	6.09	-4.85	94.64	94.64	
	SR				0.71	1.52	-0.34	33.33		
FDI → MSS	LR		-0.38		0.20	3.19	-4.60	39.29	46.43	
	SR				0.48	0.61	0.10	23.53		
MCDI → FDI	LR	-0.64	-1.17		-0.45	4.60	-11.22	44.64	46.43	
	SR				-0.50	-0.50	-0.50	12.50		
FDI → MCDI	LR	-0.46		-0.25	1.02	3.53	-0.46	51.79	69.64	
	SR				0.29	1.20	-0.13	35.42		
		MBW/FBW/UNE/CAP		MBW/FPIBW/EDU/LIB		AVG	MAX	MIN	% LR	% COMB
MPA → FDI	LR	1.18		-24.95		11.58	148.01	-41.62	98.04	98.04
	SR					8.86	28.24	-23.51	14.29	
FDI → MPA	LR	-0.01				0.39	2.09	-0.32	15.69	35.29
	SR					-0.01	0.15	-0.14	22.45	
MTA → FDI	LR			18.02		33.83	85.43	0.69	66.67	66.67
	SR					7.08	7.08	7.08	2.78	
FDI → MTA	LR	-0.08		0.47		0.98	7.07	-0.75	92.16	93.44
	SR					0.59	0.97	0.28	8.33	

Notes: As per Table 5.1 except the values are converted from per standard deviation into per 100,000 migrants, per percentage point change in skill share and diversity and US\$1 billion in investment. For example, a 100,000 increase in permanent migrants (MPA) increases cumulative gross FDI by 11.58% averaged across all model specifications.

Table 5.3: Migration flow outcomes – per standard deviation shock

		FDI	FDI/MBW/FBW	FDI/MBW/FBW/(*)	AVG	MAX	MIN	% LR	% COMB
MSS → UNER	LR	33.00	18.18		30.77	74.41	9.73	100.00	100.00
MCDI → UNER	LR	-21.54	-18.63		-28.50	5.45	-93.10	100.00	100.00
MSS → WAGER	LR				-0.12	0.49	-0.99	50.00	62.50
MCDI → WAGER	SR	0.14			0.34	0.59	0.14	62.50	87.50
MSS → CAP	LR	-6.28	0.60		-16.37	2.78	-53.14	100.00	100.00
MCDI → CAP	LR	-21.86	-45.75		-17.83	10.25	-50.73	100.00	100.00
MSS → RGDPPC	LR	12.41	-0.75		2.20	12.41	-5.31	100.00	100.00
MCDI → RGDPPC	LR	4.27	6.27		3.10	6.27	-0.22	100.00	100.00
MSS → TECH	LR	-0.05			-1.24	-0.05	-4.41	83.33	83.33
MCDI → TECH	LR				-1.02	-0.66	-1.31	50.00	66.67
MSS → TRADE	LR	1.05	3.35		0.03	3.35	-2.89	83.33	83.33
MCDI → TRADE	LR	-2.21	3.45		-0.15	3.45	-3.45	83.33	83.33
MSS → EDHCI	LR	-0.64	-0.08		-0.44	-0.08	-0.64	100.00	100.00
MCDI → EDHCI	LR				-0.80	-0.80	-0.80	33.33	33.33
MSS → LIB	LR	0.00			0.17	0.34	0.00	66.67	66.67
MCDI → LIB	LR				N/A	N/A	N/A	0.00	0.00
MSS → EGALDEM	LR	0.64	0.24		0.63	1.02	0.24	100.00	100.00
MCDI → EGALDEM	LR	-0.69	-0.02		-0.38	-0.02	-0.69	100.00	100.00
MPA → UNER (CAP)	LR	0.62	-0.76	-8.60	-12.09	23.25	-71.72	100.00	100.00
MTA → UNER (CAP)	SR				-7.81	-7.81	-7.81	14.29	14.29
MPA → WAGER	LR	0.36	-0.76		3.50	26.40	-1.65	88.89	100.00
MTA → WAGER	LR				N/A	N/A	N/A	0.00	0.00
MPA → CAP (UNE)	LR	9.02	-9.27	-0.03	-2.61	9.02	-9.27	100.00	100.00
MTA → CAP (UNE)	LR	82.97	26.46		38.52	82.97	8.43	85.71	85.71
MPA → RGDPPC	LR		2.65		2.88	3.41	1.81	83.33	83.33
MTA → RGDPPC	LR		9.79		4.53	9.79	-0.10	83.33	83.33
MPA → TECH	LR		1.70		0.21	1.70	-1.02	83.33	83.33
MTA → TECH	LR	0.31			0.31	0.31	0.31	16.67	33.33
MPA → TRADE	LR	1.12	0.47		0.08	1.50	-3.54	83.33	83.33
MTA → TRADE	LR	-4.12	5.65		4.11	7.97	-4.12	100.00	100.00
MPA → EDHCI (LIB)	LR	-0.01	-0.03	-0.02	-0.07	-0.01	-0.22	100.00	100.00
MTA → EDHCI (LIB)	LR	-0.25	-0.22	-0.20	-0.22	-0.20	-0.25	75.00	75.00
MPA → LIB (EDHCI)	LR	-0.06	-0.07	-0.04	-0.16	-0.04	-0.47	100.00	100.00
MTA → LIB (EDHCI)	LR	0.80			0.80	0.80	0.80	25.00	25.00
MPA → EGALDEM	LR	1.97	2.14		1.80	2.14	1.30	100.00	100.00
MTA → EGALDEM	LR				-0.19	-0.19	-0.19	33.33	33.33

Notes: As per Table 5.1 except note (*) corresponds to the variable indicated in the first column (e.g. CAP, UNE).

Table 5.4: Migration flow outcomes – per migrant/investment shock

		FDI	FDI/MBW/FBW	FDI/MBW/FBW/(*)	AVG	MAX	MIN	% LR	% COMB
MSS → UNER	LR	3.03	1.67		2.83	6.83	0.89	100.00	100.00
MCDI → UNER	LR	-2.91	-2.52		-3.85	0.74	-12.58	100.00	100.00
MSS → WAGER	LR				-0.01	0.04	-0.09	50.00	62.50
MCDI → WAGER	SR	0.02			0.05	0.08	0.02	62.50	87.50
MSS → CAP	LR	-0.58	0.06		-1.50	0.25	-4.88	100.00	100.00
MCDI → CAP	LR	-2.95	-6.18		-2.41	1.39	-6.85	100.00	100.00
MSS → RGDPPC	LR	1.14	-0.07		0.20	1.14	-0.49	100.00	100.00
MCDI → RGDPPC	LR	0.58	0.85		0.42	0.85	-0.03	100.00	100.00
MSS → TECH	LR	0.00			-0.11	0.00	-0.41	83.33	83.33
MCDI → TECH	LR				-0.14	-0.09	-0.18	50.00	66.67
MSS → TRADE	LR	0.10	0.31		0.00	0.31	-0.27	83.33	83.33
MCDI → TRADE	LR	-0.30	0.47		-0.02	0.47	-0.47	83.33	83.33
MSS → EDHCI	LR	-0.06	-0.01		-0.04	-0.01	-0.06	100.00	100.00
MCDI → EDHCI	LR				-0.11	-0.11	-0.11	33.33	33.33
MSS → LIB	LR	0.00			0.02	0.03	0.00	66.67	66.67
MCDI → LIB	LR				N/A	N/A	N/A	0.00	0.00
MSS → EGALDEM	LR	0.06	0.02		0.06	0.09	0.02	100.00	100.00
MCDI → EGALDEM	LR	-0.09	0.00		-0.05	0.00	-0.09	100.00	100.00
MPA → UNER (CAP)	LR	1.71	-2.09	-23.57	-33.13	63.72	-196.58	100.00	100.00
MTA → UNER (CAP)	SR				-4.41	-4.41	-4.41	14.29	14.29
MPA → WAGER	LR	0.97	-2.09		9.58	72.35	-4.53	88.89	100.00
MTA → WAGER	LR				N/A	N/A	N/A	0.00	0.00
MPA → CAP (UNE)	LR	24.71	-25.40	-0.08	-7.15	24.71	-25.40	100.00	100.00
MTA → CAP (UNE)	LR	46.82	14.93		21.73	46.82	4.76	85.71	85.71
MPA → RGDPPC	LR		7.27		7.89	9.36	4.97	83.33	83.33
MTA → RGDPPC	LR		5.53		2.55	5.53	-0.05	83.33	83.33
MPA → TECH	LR		4.66		0.57	4.66	-2.80	83.33	83.33
MTA → TECH	LR	0.17			0.17	0.17	0.17	16.67	33.33
MPA → TRADE	LR	3.06	1.28		0.23	4.12	-9.71	83.33	83.33
MTA → TRADE	LR	-2.33	3.19		2.32	4.50	-2.33	100.00	100.00
MPA → EDHCI (LIB)	LR	-0.04	-0.08	-0.06	-0.20	-0.04	-0.61	100.00	100.00
MTA → EDHCI (LIB)	LR	-0.14	-0.12	-0.11	-0.13	-0.11	-0.14	75.00	75.00
MPA → LIB (EDHCI)	LR	-0.17	-0.19	-0.10	-0.44	-0.10	-1.29	100.00	100.00
MTA → LIB (EDHCI)	LR	0.45			0.45	0.45	0.45	25.00	25.00
MPA → EGALDEM	LR	5.40	5.85		4.94	5.85	3.57	100.00	100.00
MTA → EGALDEM	LR				-0.11	-0.11	-0.11	33.33	33.33

Notes: As per Tables 5.1 and 5.3.

Temporary migrants' impact on other economic variables is less distinctly positive. There is little convincing evidence that greater temporary migration benefits labour markets, whereas higher permanent migration is associated with large decreases in the unemployment rate and increased wages. The per migrant boost to real GDP per capita (RGDPPC) from permanent migrants is over three times that of temporary, and only permanent migration appears associated with technology and egalitarian democracy improvements (albeit a negative influence on liberal democracy). On the other hand, temporary migration encourages capital deepening (permanent discourages it) and trade.

The positive relationship between temporary migrants and FDI suggests that increased emphasis on economic qualifications in migration policy has borne fruit. Facilitating a larger intake of temporary migrants appears to have increased the return on capital and encouraged greater investment, both domestic and foreign. The stronger positive association between temporary migration and trade is also consistent with temporary migrants retaining firmer preferences for home country goods and social networks that could facilitate trade. That temporary migrants are less positive contributors to GDP per capita growth likely combines lesser incentives to invest in Australia and their sheer numbers (greater denominator drag). Temporary migrants' neutral long-term labour market effects perhaps evidence effective policies designed to fill short-term needs, whereas the positive impacts for permanent migrants suggest long-term settlement is beneficial to local employment. Temporary migration limiting or forestalling technological progress — through deterring industrial upgrading or investments in workforce upskilling — is consistent with expectations, while the relatively strong influence of MPA on institutions likely reflects greater integration into society and politics.

In short, increasing the temporariness of the migrant intake appears to have increased Australia's FDI competitiveness, capital deepening and trade. However, temporary migrants do not appear to be associated with the positive labour market, technological and institutional improvements associated with permanent migration.

Intake skills

The effects of Australia's increasingly skilled migration intake are measured in two ways: first using the skill share of the permanent intake over the full sample period; and second by running separate estimations for permanent and temporary arrivals across the periods before and after the most substantive change to skills selection policies. The second approach — the results of which are provided in Tables 5.5 and 5.6 — measures the differential impact of the policy shift on permanent and temporary migrants.

The results across the overall sample (Tables 5.1 and 5.2) suggest an increased skill share encourages more FDI over the long-term, with an average elasticity of 0.7. The elasticity is significantly lower in specifications incorporating migrant numbers and overall migration and FDI policies but remains positive at around 0.1. The standard deviation shock is quite substantial, delivering a 7.6 percent cumulative FDI increase over 15 years. Evidence of the reverse relationship is much less convincing, with FDI not meaningfully influencing the upskilling of the migrant intake.

The period split results corroborate this story, providing evidence of a significant change in the relationship between both migrant types with FDI. The 'pre-skills' era featured a quite large negative relationship from permanent migration to FDI (and temporary migration to

FDI, but there were few temporary arrivals then), with the underpinning reasons difficult to identify (perhaps early migration surges were associated with (temporarily) reduced satisfaction with the settlement experience, which in turn detracted from the environment for foreign investors). In the 'skills' era both permanent and temporary arrivals supported increased long-term (and short-term for temporary) FDI inflows, with larger effects for temporary migrants consistent with the earlier discussion. Note that the preferred specifications (those including the overall migration and FDI policy indicators) suggest temporary migration to FDI is positive in both periods, with the negative average driven by other specifications (that use alternative policy indicators: legal entry and integration). In respect of the reverse relationship, FDI's positive influence on permanent migration somewhat reduces in the skills era and reverses completely for temporary migration. That is, with an increased emphasis on skills, higher FDI reduces temporary migration.

In respect of economic outcomes, the results across the overall period suggest an increasing skill share is not broadly beneficial. A higher migrant intake skill share is associated with higher unemployment, minimal wage effect, less capital (though this result is contested by a positive result in the preferred specification), lower technology and human capital overall. Increased skills are however associated with higher GDP per capita and institutional improvements.

Across the smaller set of outcomes in the period split exercise (Tables 5.7 and 5.8), the upskilling of the intake is noticeably positive in increasing GDP per capita and neutralising the unemployment impacts of temporary migrants, but negative in other respects. Permanent migrants reduce unemployment in both periods but the magnitude lessened with skills selection, permanent migration became modestly more wage reducing and temporary migration shifts from no effect to negative, and there is a slight reduction in the positive impact of permanent migration on GDP per capita. Here too the preferred specification returns a negative relationship from permanent migrants to GDP per capita but a positive average, suggesting differential impacts from overall and selected policies.

That an increasingly skilled migration intake boosts long-term FDI is consistent with previous studies and models linking skilled migration to FDI (Jayet and Marchal 2016; Comolli 2018). Skilled migrants can relieve specific labour deficits to accommodate a wider array of potential FDI industries, while also supporting industrial upgrading over offshoring as labour costs rise. An increasing skill share has supported FDI attraction. It also suggests greater upskilling's positive effect on FDI is predominantly a temporary migration phenomenon.

Table 5.5: Migration and FDI relationships before and after the skills shift – per standard deviation shock

			MBW/FBW/ UNE	MBW/FBW/ WGE	MBW/FBW/ GDP	AVG	MAX	MIN	% LR/SR	% COMB
MPA → FDI	Pre-skills	LR	-35.03	-18.80	-1.36	-8.40	44.65	-43.38	100.00	100.00
		SR		-9.52	-1.86	-6.24	-1.41	-13.69	55.56	
MPA → FDI	Skills	LR	7.51	2.21	-6.73	1.23	33.00	-33.18	100.00	100.00
		SR				2.18	4.28	0.09	20.00	
FDI → MPA	Pre-skills	LR		-1.80		1.17	7.89	-2.57	30.00	90.00
		SR	-0.36	7.63	3.44	4.57	7.63	-0.36	77.78	
FDI → MPA	Skills	LR		-4.24		-4.06	9.33	-10.88	40.00	40.00
		SR				3.57	3.57	3.57	10.00	
MTA → FDI	Pre-skills	LR	23.55	10.08	14.80	-13.13	28.76	-85.54	90.00	100.00
		SR				-27.31	-23.89	-31.69	60.00	
MTA → FDI	Skills	LR	41.07	75.42	33.32	44.00	80.49	3.89	100.00	100.00
		SR	14.46	27.84	11.52	16.79	27.84	11.52	62.50	
FDI → MTA	Pre-skills	LR	64.10	75.26		88.48	142.06	64.10	50.00	80.00
		SR				9.86	13.83	5.12	60.00	
FDI → MTA	Skills	LR	-28.15	-1.97	-36.41	-12.27	-1.90	-36.41	100.00	100.00
		SR				-2.82	2.10	-7.74	25.00	

Notes: As per Table 5.1, with the ‘pre-skills’ period referring to the years up to and including 1988 and the ‘skills’ period 1989 onwards.

Table 5.6: Migration and FDI relationships before and after the skills shift – per migrant/investment shock

			MBW/FBW/ UNE	MBW/FBW/ WGE	MBW/FBW/ GDP	AVG	MAX	MIN	% LR/SR	% COMB
MPA → FDI	Pre-skills	LR	-85.13	-45.67	-3.30	-20.41	108.49	-105.41	100.00	100.00
		SR		-23.14	-4.52	-15.16	-3.44	-33.27	55.56	
MPA → FDI	Skills	LR	29.17	8.58	-26.14	4.79	128.16	-128.88	100.00	100.00
		SR				8.47	16.61	0.33	20.00	
FDI → MPA	Pre-skills	LR		-0.49		0.32	2.15	-0.70	30.00	90.00
		SR	-0.10	2.08	0.94	1.25	2.08	-0.10	77.78	
FDI → MPA	Skills	LR		-0.22		-0.21	0.49	-0.57	40.00	40.00
		SR				0.19	0.19	0.19	10.00	
MTA → FDI	Pre-skills	LR	263.43	112.82	165.62	-146.86	321.72	-957.04	90.00	100.00
		SR				-305.56	-267.29	-354.57	60.00	
MTA → FDI	Skills	LR	22.32	40.99	18.11	23.91	43.75	2.11	100.00	100.00
		SR	7.86	15.13	6.26	9.13	15.13	6.26	62.50	
FDI → MTA	Pre-skills	LR	17.49	20.54		24.15	38.77	17.49	50.00	80.00
		SR				2.69	3.77	1.40	60.00	
FDI → MTA	Skills	LR	-1.47	-0.10	-1.91	-0.64	-0.10	-1.91	100.00	100.00
		SR				-0.15	0.11	-0.41	25.00	

Notes: As per Table 5.5.

Table 5.7: Migration outcomes before and after the skills shift – per standard deviation shock

			MBW/FBW /FDI	MBW/FBW /MPA	MBW/FBW /MTA	AVG	MAX	MIN	% LR/SR	% COMB
MPA → UNER	Pre-skills	LR	-9.59			-49.29	-9.59	-141.53	100.00	100.00
	Skills	LR	-11.48			-19.87	10.67	-67.09	100.00	100.00
MTA → UNER	Pre-skills	LR				14.27	21.61	6.93	50.00	75.00
	Skills	LR				N/R	N/R	N/R	0.00	0.00
FDI → UNER	Pre-skills	LR				-52.97	-52.97	-52.97	14.29	42.86
	Skills	LR		22.94	7.55	2.59	22.94	-17.52	100.00	100.00
MPA → WAGER	Pre-skills	LR	2.65			-4.38	2.65	-16.25	100.00	100.00
	Skills	LR	-0.22			-5.29	-0.11	-20.59	100.00	100.00
MTA → WAGER	Pre-skills	LR				0.02	0.02	0.02	25.00	25.00
	Skills	LR	-3.48			-1.53	0.42	-3.48	50.00	75.00
FDI → WAGER	Pre-skills	LR		-1.23		-1.23	-1.23	-1.23	14.29	14.29
	Skills	LR		0.45	-3.32	-2.10	0.45	-3.44	42.86	42.86
MPA → RGDPPC	Pre-skills	LR	-1.69			1.00	4.43	-1.69	100.00	100.00
	Skills	LR	-3.88			0.68	6.19	-3.88	100.00	100.00
MTA → RGDPPC	Pre-skills	LR	-2.08			0.89	5.86	-2.08	75.00	75.00
	Skills	LR	16.03			13.06	16.03	10.65	100.00	100.00
FDI → RGDPPC	Pre-skills	LR		-12.25	-5.87	-0.11	11.83	-14.90	42.86	42.86
	Skills	LR		1.90	3.11	-3.74	2.10	-12.25	100.00	100.00

Notes: As per Table 5.5.

Table 5.8: Migration outcomes before and after the skills shift – per migrant/investment shock

			MBW/FBW/FDI	MBW/FBW/MPA	MBW/FBW/MTA	AVG	MAX	MIN	% LR/SR	% COMB
MPA → UNER	Pre-skills	LR	-23.30			-119.78	-23.30	-343.91	100.00	100.00
	Skills	LR	-27.90			-48.29	25.94	-163.03	100.00	100.00
MTA → UNER	Pre-skills	LR				55.44	83.95	26.93	50.00	75.00
	Skills	LR				N/R	N/R	N/R	0.00	0.00
FDI → UNER	Pre-skills	LR				-14.46	-14.46	-14.46	14.29	42.86
	Skills	LR		6.26	2.06	0.71	6.26	-4.78	100.00	100.00
MPA → WAGER	Pre-skills	LR	6.44			-10.65	6.44	-39.49	100.00	100.00
	Skills	LR	-0.53			-12.85	-0.28	-50.03	100.00	100.00
MTA → WAGER	Pre-skills	LR				0.09	0.09	0.09	25.00	25.00
	Skills	LR	-13.50			-5.94	1.62	-13.50	50.00	75.00
FDI → WAGER	Pre-skills	LR		-0.34		-0.34	-0.34	-0.34	14.29	14.29
	Skills	LR		0.12	-0.91	-0.57	0.12	-0.94	42.86	42.86
MPA → RGDPPC	Pre-skills	LR	-4.11			2.42	10.76	-4.11	100.00	100.00
	Skills	LR	-9.44			1.66	15.04	-9.44	100.00	100.00
MTA → RGDPPC	Pre-skills	LR	-8.08			3.46	22.77	-8.08	75.00	75.00
	Skills	LR	62.27			50.72	62.27	41.37	100.00	100.00
FDI → RGDPPC	Pre-skills	LR		-3.34	-1.60	-0.03	3.23	-4.07	42.86	42.86
	Skills	LR		0.52	0.85	-1.02	0.57	-3.34	100.00	100.00

Notes: As per Table 5.5.

That upskilling the migrant intake has not been associated with overwhelming improvements in other economic outcomes requires further unpacking. Upskilling's positive association with higher per capita incomes may reflect the selection of more productive migrants on average, and its association with institutional improvements could reflect skilled migrants' greater integration into Australian society and consistency with democratic ideals (e.g. Department of Home Affairs 2023, Attachment B). On the other hand, upskilling's association with higher unemployment and lower wages may result from poor targeting of skills deficits (creating substitutability with locals and long waits for suitable jobs) or excessive skewing of the intake towards skills. This accords with widespread evidence of downwards mobility among skilled migrants due to discrimination and patchy skills recognition (Hawthorne 2014; Ressa, Strachan, and Bailey 2017; Rajendran et al. 2020). The prevailing logic of 'the more the merrier' regarding skills may be misplaced if it creates labour market imbalances that reduce the return on skills investments and provide insufficient low- and semi-skilled labour to support additional business investment (including foreign). Negative associations with capital and technology may also be a perverse outcome of an increased emphasis on employment, with the skills focus oriented towards job sponsorship over entrepreneurship. A large proportion of skilled migrants may also be directed towards sustaining incumbent local industries at the expense of new and higher value-added foreign investors.

The associations that are revealed in this analysis do not establish causal relationships: upskilling the migrant intake may not explain the perverse economic outcomes that are associated with it at all. Likewise, the results could reflect divergence between policy intent and execution in harnessing migrant skills and maximising labour market matching, suggesting that there needs to be caution for Australia and other countries in designing skills selection policies.

Diversity of migrant intake

Akin to the approach that was adopted for skills, the relationship between the diversity of migration intake and FDI, and the economic impacts of Australia's increasingly diverse migration intake are measured across full and sub-sample periods mirroring the major policy shift towards a substantially more diverse intake. The corresponding results for the sub-samples are presented in Tables 5.9 through 5.12.

The results across the overall sample provide patchy evidence that greater diversity increases long-term FDI flows. The results are consistent in sign but only statistically significant in around half of all specifications, with an average elasticity of about 0.5 and slightly higher in the preferred specifications. The reverse relationship returns a higher share of statistically significant specifications (70 percent) but is less consistent in sign. The average effect implies that increased FDI reduces long-term diversity of the migrant intake with an elasticity close to one; however the preferred specifications produce the opposite sign. It is thus difficult to draw confident conclusions about the relationship between FDI and the diversity of migrant intake.

Table 5.9: Migration and FDI relationships before and after diversification – per standard deviation shock

			MBW/FBW/ UNE	MBW/FBW/ WGE	MBW/FBW/ GDP	AVG	MAX	MIN	% LR/SR	% COMB
MPA → FDI	Pre-diverse	LR	-63.66	-12.66	-43.38	-24.49	17.04	-63.66	100.00	100.00
		SR				-13.04	-13.04	-13.04	12.50	
MPA → FDI	Diverse	LR	32.20	7.98	-20.85	-13.13	45.09	-54.80	100.00	100.00
		SR				N/R	N/R	N/R	0.00	
FDI → MPA	Pre-diverse	LR	-144.62		3.53	-70.54	3.53	-144.62	20.00	100.00
		SR		4.11	5.44	7.22	12.09	2.93	100.00	
FDI → MPA	Diverse	LR				5.88	5.88	5.88	10.00	10.00
		SR				N/R	N/R	N/R	0.00	
MTA → FDI	Pre-diverse	LR		-34.54	21.75	13.62	110.01	-34.54	80.00	90.00
		SR			8.98	6.37	13.04	-2.91	33.33	
MTA → FDI	Diverse	LR	54.65	107.75	106.23	66.77	133.34	-56.32	80.00	100.00
		SR				2.95	14.06	-19.31	57.14	
FDI → MTA	Pre-diverse	LR	6.98		41.71	68.38	161.31	6.98	60.00	90.00
		SR			15.54	15.52	15.63	15.38	33.33	
FDI → MTA	Diverse	LR	3.84	6.06	9.72	5.25	26.20	-12.58	100.00	100.00
		SR				-4.79	-4.79	-4.79	14.29	

Notes: As per Table 5.5 while noting that the ‘pre-diversity’ period refers to the years up to and including 1983 and the ‘diverse’ period 1984 onwards.

Table 5.10: Migration and FDI relationships before and after diversification – per migrant/investment shock

			MBW/FBW/ UNE	MBW/FBW/ WGE	MBW/FBW/ GDP	AVG	MAX	MIN	% LR/SR	% COMB
MPA → FDI	Pre-diverse	LR	-154.69	-30.77	-105.41	-59.52	41.41	-154.69	100.00	100.00
		SR				-31.68	-31.68	-31.68	12.50	
MPA → FDI	Diverse	LR	125.06	30.98	-80.98	-51.00	175.13	-212.85	100.00	100.00
		SR				N/R	N/R	N/R	0.00	
FDI → MPA	Pre-diverse	LR	-39.47		0.96	-19.25	0.96	-39.47	20.00	100.00
		SR		1.12	1.48	1.97	3.30	0.80	100.00	
FDI → MPA	Diverse	LR				0.31	0.31	0.31	10.00	10.00
		SR				N/R	N/R	N/R	0.00	
MTA → FDI	Pre-diverse	LR		-386.38	243.36	152.43	1230.8	-386.38	80.00	90.00
		SR			100.51	71.27	145.86	-32.57	33.33	
MTA → FDI	Diverse	LR	29.70	58.56	57.74	36.29	72.47	-30.61	80.00	100.00
		SR				1.60	7.64	-10.50	57.14	
FDI → MTA	Pre-diverse	LR	1.90		11.38	18.66	44.03	1.90	60.00	90.00
		SR			4.24	4.23	4.27	4.20	33.33	
FDI → MTA	Diverse	LR	0.20	0.32	0.51	0.28	1.37	-0.66	100.00	100.00
		SR				-0.25	-0.25	-0.25	14.29	

Notes: As per Table 5.5.

Table 5.11: Migration outcomes before and after diversification – per standard deviation shock

			MBW/FBW /FDI	MBW/FBW /MPA	MBW/FBW /MTA	AVG	MAX	MIN	% LR/SR	% COMB
MPA → UNER	Pre-diverse	LR	17.50			-53.97	17.50	-112.12	100.00	100.00
	Diverse	LR	-15.68			-12.43	32.13	-66.67	100.00	100.00
MTA → UNER	Pre-diverse	LR				48.45	74.53	22.37	50.00	50.00
	Diverse	LR				N/R	N/R	N/R	0.00	0.00
FDI → UNER	Pre-diverse	SR				-35.69	-23.62	-55.23	50.00	57.14
	Diverse	LR		-6.12		-20.83	-1.76	-67.38	57.14	71.43
MPA → WAGER	Pre-diverse	LR	-0.22			0.74	9.25	-3.86	100.00	100.00
	Diverse	LR	-1.32			-6.06	1.24	-24.22	100.00	100.00
MTA → WAGER	Pre-diverse	SR				1.19	1.19	1.19	25.00	25.00
	Diverse	SR				0.16	1.74	-1.04	75.00	75.00
FDI → WAGER	Pre-diverse	LR				1.78	2.91	0.66	28.57	28.57
	Diverse	LR		-4.25		-3.69	-2.80	-4.25	42.86	57.14
MPA → RGDPPC	Pre-diverse	LR	0.59			3.90	6.81	0.59	100.00	100.00
	Diverse	LR	-5.75			-5.28	3.38	-14.77	100.00	100.00
MTA → RGDPPC	Pre-diverse	LR	-2.51			4.47	18.94	-3.02	75.00	75.00
	Diverse	LR	23.78			12.55	23.78	1.81	100.00	100.00
FDI → RGDPPC	Pre-diverse	LR		1.90	3.11	4.38	9.54	1.90	57.14	57.14
	Diverse	LR		2.71	2.02	7.34	24.83	-0.14	100.00	100.00

Notes: As per Table 5.5.

Table 5.12: Migration outcomes before and after diversification – per migrant/investment shock

			MBW/FBW /FDI	MBW/FBW /MPA	MBW/FBW /MTA	AVG	MAX	MIN	% LR/SR	% COMB
MPA → UNER	Pre-diverse	LR	41.18			-127.03	41.18	-263.88	100.00	100.00
	Diverse	LR	-36.91			-29.25	75.62	-156.91	100.00	100.00
MTA → UNER	Pre-diverse	LR				183.63	282.47	84.79	50.00	50.00
	Diverse	LR				N/R	N/R	N/R	0.00	0.00
FDI → UNER	Pre-diverse	SR				-17.65	-11.68	-27.32	50.00	57.14
	Diverse	LR		-3.03		-10.30	-0.87	-33.32	57.14	71.43
MPA → WAGER	Pre-diverse	LR	-0.53			1.75	21.78	-9.09	100.00	100.00
	Diverse	LR	-3.11			-14.27	2.91	-56.99	100.00	100.00
MTA → WAGER	Pre-diverse	SR				4.51	4.51	4.51	25.00	25.00
	Diverse	SR				0.62	6.58	-3.94	75.00	75.00
FDI → WAGER	Pre-diverse	LR				0.88	1.44	0.32	28.57	28.57
	Diverse	LR		-2.10		-1.82	-1.38	-2.10	42.86	57.14
MPA → RGDPPC	Pre-diverse	LR	1.39			9.19	16.04	1.39	100.00	100.00
	Diverse	LR	-13.53			-12.42	7.95	-34.76	100.00	100.00
MTA → RGDPPC	Pre-diverse	LR	-9.50			16.94	71.78	-11.46	75.00	75.00
	Diverse	LR	90.12			47.55	90.12	6.87	100.00	100.00
FDI → RGDPPC	Pre-diverse	LR		0.94	1.54	2.16	4.72	0.94	57.14	57.14
	Diverse	LR		1.34	1.00	3.63	12.28	-0.07	100.00	100.00

Notes: As per Table 5.5.

The period split results also provide tentative evidence that diversification of intake encourages the attraction of FDI. Increased permanent arrivals decreased FDI in both the pre- and post-diversification periods but the magnitude reduced marginally (in per migrant terms; it halved in standard deviation terms) post-diversification (and two of the three preferred specifications returned positive results). Increased temporary arrivals on the other hand increased FDI in both periods, though the magnitude diluted significantly during the period of more diverse intake (due to the overwhelming increase in temporary migrants off a low base; it quintupled in standard deviation terms). In the reverse direction a positive short-term relationship from FDI to permanent migration in the pre-diverse period disappears with diversity, while a positive long-term relationship from FDI to temporary migration dramatically reduces in average magnitude.

The results across the overall sample period suggest mixed impacts of migrant diversity on economic outcomes. Increased diversity is associated with higher unemployment, lower wages and lower GDP per capita, but appears to increase capital, trade, technology, egalitarian democracy and perhaps education. Across the smaller set of outcomes modelled in the period split exercise, the unemployment reducing benefits of permanent migrants lessened but the unemployment costs of temporary migrants neutralised, permanent migration has gone from increasing to decreasing average wages while temporary migration is now associated with a lower average wage dividend, and permanent migration has flipped from positively to negatively influencing GDP per capita, while the positive benefits of temporary migration have almost tripled.

That the results — while not strong enough to support definitive conclusions — mostly favour intake diversification boosting FDI accords with previous studies finding migrants facilitate bilateral investment from their countries of origin (e.g. Kugler and Rapoport 2007; Nijkamp, Gheasi, and Rietveld 2011; Gao 2003; Tong 2005). It may also be consistent with studies linking a more diverse workforce with enhanced business opportunities, as diversity of migrant intake may better relieve labour force skills deficits (Eswaran 2019). That the reverse is not true may relate to the concentration of FDI inflows among a handful of major source countries, with the five and 10 largest investors combined representing 54.4 and 90.5 percent of Australia's direct investment stock respectively in 2019 (Australian Bureau of Statistics (ABS) 2022b). The negative labour market impacts of a more diverse permanent intake may reflect greater difficulties integrating migrants from numerous linguistic, educational and cultural backgrounds. This in turn would account for the lower per capita GDP effect. That temporary migrants — who are subject to greater skills selection (student entry and skilled occupation lists) and more likely to have employer sponsorship — are not found to have negative labour market effects and have positive GDP per capita outcomes suggests diversity can be beneficially accommodated with greater targeting or facilitation. The positive association between increased diversity, capital deepening and technology (alongside negative labour market effects) may indicate that migrants from diverse backgrounds have been more entrepreneurial and invested in themselves. It is also positive and noteworthy that egalitarian democracy (culture of equality, equity and respect) appears to have benefited from increased diversity.

Conclusion

This chapter has explored the relationships between migration and FDI inflows in Australia's modern history, focusing analysis on the major shifts that have taken place in migration

policy. Moves towards a more temporary, skilled and diverse migrant intake are at the forefront of migration policy design debate globally, and this chapter represents a first attempt at exploring their effects on FDI. The results suggest that the composition of the migrant intake has affected FDI inflows and broader economic outcomes, with important implications for policy formulation.

Increased temporariness in the migrant intake supports more FDI (and capital deepening generally), with temporary migration having much higher elasticities in relation to FDI flows than permanent migrants. However, the more positive labour market, per capita income, technology and institutional impacts of permanent migrants are lost under temporary migration, suggesting that there are important economic and social trade-offs to increased migration temporariness. The upskilling of the migration intake similarly has positive effects on the attraction of FDI consistent with arguments about its alleviation of the skills deficit. Upskilling also boosts GDP per capita and reinforces democratic institutions but is associated with worse labour market outcomes and apparent disincentives for human capital and technological development. The perverse outcomes may reveal evidence of policy's not delivering on its intent (labour market and skills mismatches) or the consequences of preferencing employment in incumbent firms over migrant entrepreneurs and expatriates supporting new investors. Increased diversity also appears conducive to additional FDI, though the results are less robust. Migrant intake diversity delivers a mixed bag economically, associated with higher unemployment, lower wages and lower per capita incomes, but increased capital, trade, technology and egalitarian democracy.

The findings suggest a more temporary, skilled and diverse migrant intake supports efforts to attract FDI but may involve broader economic trade-offs that require policymaker attention. Arguments that increasing migrant skills and targeting temporary labour shortages will increase the benefits of migration are subject to this qualification, as outcomes are influenced by policy design and contextual factors. Conditional on having comparable quality institutions and other policies, Australia's experience offers lessons for countries with similar migration and FDI policy aspirations, suggesting opportunities to enhance the positive relationships between migration and FDI and their contribution to economic development. This chapter thus furthers understanding of how major migration policy shifts influence the bidirectional relationship between migration and capital flows and broader economic outcomes, and consequently how complementarity of flows, policies and economic development can be enhanced.

Chapter 6

The relationships between migration and FDI policies and flows in Australia

Synopsis: This chapter builds upon the analysis of Australia's major migration policy shifts (Chapter 5) with a more granular assessment of the relationships between migration and FDI policies, flows, and economic outcomes. It explores Australia's incremental changes to migration and FDI policies by subcategory (such as legal entry for migration and screening for FDI) by deploying an extensive, purpose-built set of quantitative policy indicators. Analysis of policies on factor flows and economic outcomes is thereby extended to capture the nuanced influence of Australia's policy reform path beyond overarching liberalising and tightening trends. FDI policy tightening — especially around land access — is found to reduce migration whereas migration policy tightening — especially legal entry and integration policies — increases FDI. There is little evidence of concurrent liberalising or tightening of migration and FDI policies to support concurrent factor inflows. Policies more conducive to concurrent factor inflows would address apparent migration policy biases favouring incumbent firms and limiting migrant entrepreneurship, and FDI settings that constrain expatriate employment. Policies represent a barrier to new (and potentially more sophisticated) foreign investment and maximising the economic benefits of migration and FDI. The findings offer novel and generalisable insights into shaping policies that positively influence factor inflows and economic development.

Introduction

Inflows of foreign capital and people have featured prominently in Australia's post-WWII economic and social development. Australia's experience is viewed as a favourable example for developing countries to emulate, though the specific contribution of factor flow policies (vis-à-vis endowments and wider policies and characteristics) to Australia's attractiveness is not sufficiently understood. More nuanced evidence surrounding the influence of migration and FDI policy changes on factor inflows and economic outcomes would enhance the transferability and replicability of Australia's experience, while also identifying opportunities for Australia to further enhance policy settings.

This chapter builds on the foundations of previous chapters by more closely examining how policy settings have influenced Australia's migration and FDI flows and economic outcomes. It delves deeper into iterative changes by policy subcategory, introducing metrics that capture the shifting policy environment from the investor/migrant perspective and applying these econometrically. It seeks to empirically account for how migration (FDI) policies affect the type and volume of migrants (FDI) — which itself has received little scholarly attention — while focusing on how migration policies influence FDI and FDI policies influence migration and the consequences for outcomes including GDP per capita, labour markets and capital deepening.

As previous chapters argue, migration (FDI) policy influence on FDI (migration) has not been explored empirically despite direct interlinkages. For example, settings for expatriate visas may influence new foreign investment decisions and constraints on foreign investor activity

could influence migrant entrepreneurship or investment. The rich dynamism of Australia's factor flow policies provides an excellent case study for exploring this.

The examination is underpinned by exhaustively produced quantitative policy indicators capturing a long historical time series and policy subcategories. The indicators capture individual policy reforms, whether they are more or less restrictive (from the investor/migrant perspective), and broad magnitude (minor, mid-level or major) in historical context. The indicators overcome methodological challenges inherent in quantifying policy changes over time and geography that have discouraged prior research.

The new policy metrics are deployed in VEC modelling to test the bidirectional relationships among various migration and FDI flow and policy variables, together with economic variables familiar from Chapter 5. Modelling examines whether the relationship is stronger from migration to FDI (or vice versa) and whether it applies differently for temporary and permanent migrants — recognising that distinct policy objectives for temporary and permanent migration affect their respective characteristics, incentives and activities; and therefore their potential to migrate and contribute economically. It further explores whether FDI policy tightening reduces migrant inflows and whether individual policy subcategories (such as equity restrictions and screening) have different effects. Likewise, it explores migration policy tightening and FDI inflows (with subcategories including legal entry and integration). Relationships between migration and FDI policy changes are then examined for evidence of coordinated movement. Lastly, the economic outcomes of the preceding relationships are investigated to give greater development emphasis to the complementarity between migration and FDI.

The findings of this analysis are then presented and discussed with a view to highlighting and explaining the most relevant phenomena.

The next section provides an overview of Australia's migration and FDI policy histories. A further description of the policy indicators (building on Chapter 5) highlights the data and methodology section, which is followed by a discussion of the main results. The chapter concludes with summary observations.

Background

Chapters 2, 3 and 5 respectively detail the evidence and thinking surrounding the individual and joint drivers of international labour and investment flows, an empirically testable theoretical framework that links migration, FDI, policies and development, and the significant contribution of migration and FDI inflows to Australia's modern development. This section provides supplementary background on Australia's policy developments and expectations for empirical modelling.

Australia's migration and FDI policy history

Australia's migration and FDI policies have experienced considerable change since 1945, reflecting reforms both substantive and slight. This section explores broad trends and prominent shifts using the baseline quantitative policy indicators introduced in Chapter 5.

Policies have supported persistent net inflows of both migrants and FDI through starkly different and seemingly independent approaches (see Figure 5.5). Migration policies were largely relaxed until the late 1970s as Australia sought to attract and keep more migrants. Overall policies have gradually tightened in the decades since as Australia's attractiveness as

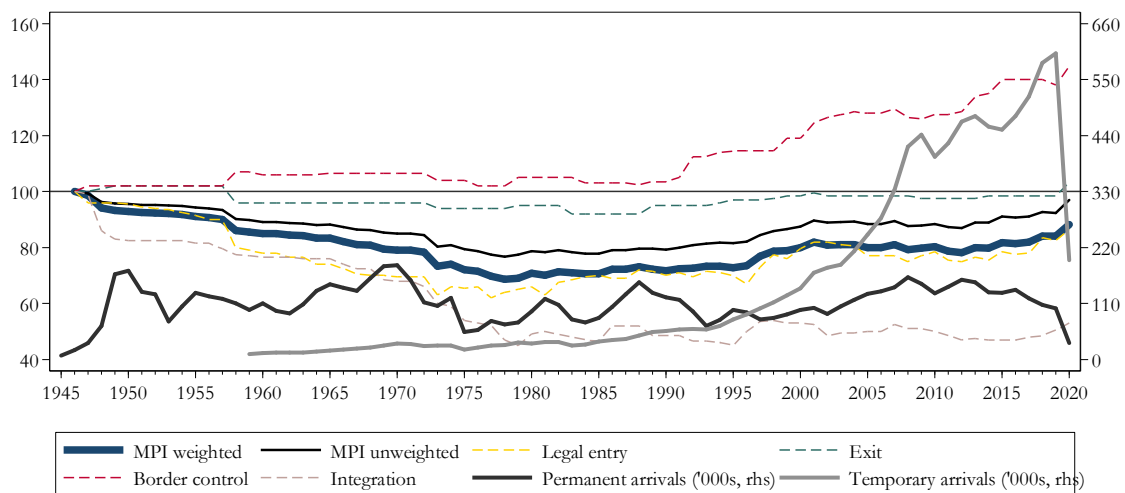
a destination increased and earlier migrants stimulated further demand from their families and countrypeople (Figure 6.1). Migration policy tightening has been most stark around migrant selection — prioritising entrants with skills and employability — and securing borders — to reinforce sovereignty over migrant selection. FDI policies contrastingly tightened significantly in the early 1970s, as concerns surrounding foreign companies disproportionately benefiting from Australia's mineral wealth gained traction. The resulting foreign investment screening system and Australian participation (joint investment) requirements overshot in deterring foreign investors, and global policy shifts favouring investment liberalisation supported a mostly liberalising trend from the late 1970s until about 10 years ago. A new trend of tightening has featured since as national security considerations increasingly influenced investment policies (Figure 6.2).

FDI policy has featured a fairly persistent longer-term orientation emphasising economic development benefits, facing only occasional challenges from alternative narratives advancing economic nationalism and dependency fears. Migration policy has also included a long-term vision for population growth and societal enrichment but has been more susceptible to short-term influences, principally unemployment shocks and politicisation.

Migration policies

Over the decades following World War II, migration policies were liberalised as Australia encouraged population growth and later the diversification of the migrant intake. Momentum was lost and policies took a restrictive turn during the 1980s as debate surrounding migration intake diversity and taxpayer supported integration programmes increased both politically and publicly. Migrant selection and control became the dominant and persistent narrative. Policies tightened further from the early 1990s with border control policies becoming increasingly influential. Shifts towards a more temporary and selective (around skills and other economic criteria) migrant intake, alongside further border tightening, have highlighted the most recent phase of migration policy (Figure 6.1). Migration policy increasingly emphasises sovereign determination and selectivity, with heightened migration control to prevent illegal entry and stricter criteria for aspiring entrants.

Figure 6.1: Migration policy stringency changes by sub-indicator and arrivals, 1945-2020



Source: Author (policy indicators); Australian Bureau of Statistics (ABS) 2019; Department of Home Affairs 2020; ABS 2021c; 2021d). Note higher values equal greater policy stringency. 'MPI weighted' is the overall migration policy indicator using weighted measures to give greater primacy to certain subcategories (like legal entry) whereas 'MPI unweighted' averages all subcategory indicators equally. 'Legal entry' captures policies governing legal entry and stay, including visas, permits and regularisation rules. 'Exit' captures policies governing the removal of migrants from the host country. 'Border control' captures policies governing external and internal controls securing national territory. 'Integration' captures policies governing post-entry rights and conditions, including the rights of migrants (and family) to work or study, transitional support (language training, temporary housing), access to permanent residency and citizenship, social benefit eligibility, discrimination and cultural policies, and civic participation.

Within subcategories, legal entry policies most closely mirror the overall pattern and have experienced the most changes historically. Early post-war policies supported a relatively homogenous (British plus certain European) and permanent (settler) intake facilitated with a small set of countries through assisted passage agreements that subsidised migrants' journey to Australia (Department of Immigration and Ethnic Affairs 1978; Spinks 2010). More source countries were gradually allowed in the early 1950s as Australia routinely failed to source sufficient migrants, and formal systems for entry permits, refugee claims and family accompaniment were introduced in and around 1958 (Australian Government 1958; Inglis 2004; Klapdor, Coombs, and Bohm 2009; Department of Immigration and Multicultural Affairs 2001). After first broadening the intake by widening sponsorship of family members and skilled persons, the 'White Australia' policy started to unwind from 1966, with entry and stay discrimination based on race and ethnicity eliminated in stages (also 1973 and 1983) (SOPEMI n.d.; Inglis 2004; A. M. Mayda 2005). Conflicts and humanitarian crises prompted large inflows from Asia (particularly Viet Nam) and South America during the 1970s, with increased refugee intake central to early diversification. As migrant supply began to outstrip demand during the 1980s (evident in lengthening visa wait times), permanent entry criteria began tightening. Economic selection gained emphasis over family reunion, with a major turning point following the FitzGerald Report's recommendations for a strengthened points-based system (FitzGerald 1988; Australian Government 1989b). For all migrants but particularly non-economic, higher visa fees were levied to reduce costs to taxpayers. Policies concerning the entry and stay of refugees and asylum seekers also tightened significantly in

the early 1990s as illegal migration concerns rose (Klapdor, Coombs, and Bohm 2009; J. Phillips and Spinks 2013b). The terms of legal entry were transformed with the introduction of temporary labour migration visas in 1996 (Klapdor, Coombs, and Bohm 2009; SOPEMI n.d.). Temporary ('457') visas increased the entry prospects for employable skilled migrants but limited their rights to stay and fully integrate.

Integration policies have experienced the largest net liberalisation since 1945, with almost all net improvements occurring prior to 1980. Early measures created the Australian citizenship architecture and provided extensive settlement support (housing, employment and allowances) (Australian Government 1948; Department of Immigration and Ethnic Affairs 1978). Liberalisation of naturalisation policies and promotion schemes became a priority in the 1960s, including reducing the prior residency period (from five to three years), equalising naturalisation eligibility for non-Europeans (1966), and providing migrants with more generous health insurance and pension benefits (Department of Immigration and Multicultural Affairs 2001; Department of Immigration and Citizenship 2012). The diversification of the migrant intake and rising numbers of refugees from non-English speaking backgrounds in the early 1970s prompted additional investment in settlement support, particularly adult migrant language education. It also prompted multiculturalism initiatives and racial discrimination laws during the mid-to-late 1970s, though the limits of discrimination laws are oft debated (Australian Government 1975b). Naturalisation became more accessible (shorter prior residency and lesser language requirements) and truly non-discriminatory in 1984. Thereafter citizenship rules largely tightened, starting with the restriction of *jus soli* in 1986 (citizenship by birth dependent on parents' nationality) (Klapdor, Coombs, and Bohm 2009). Alongside the late-1980s shift towards economic migrants, social benefits and integration support became less generous and more targeted. By the early-mid 1990s, visa charges recouped the cost of language classes and standalone multicultural institutions were abolished. The past two decades have seen much debate and policy tinkering around citizenship criteria (mostly tightening), racial discrimination law adequacy, access to welfare benefits and refugee and asylum seeker rights.

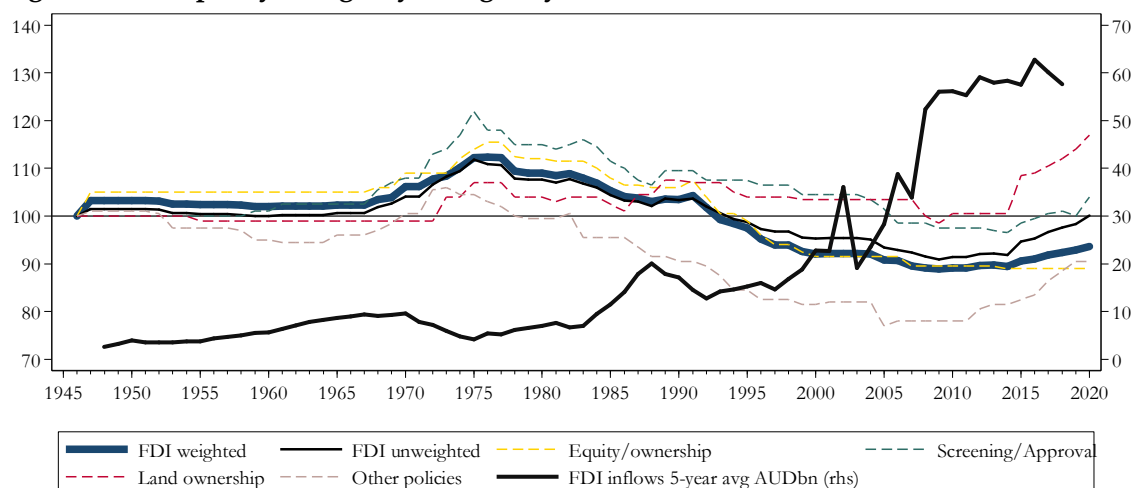
Border and exit policies have dominated migration policy debate this century although they had not previously been centre stage. Unauthorised migration — predominantly overstayers rather than illegal entrants — was a minor and more sympathetically viewed phenomenon prior to the 1970s with population growth an overriding priority. Formal rules around illegal migration, including deportation criteria and procedures, were introduced in 1958 (Australian Government 1958; A. M. Mayda 2005; Crock and Berg 2011). But it was the unintended consequences of the easy visa system (1973) that raised illegal immigration to prominence. The visa was designed to boost tourist and business travel but made it easier to enter legally for unauthorised settlement, prompting the first of four post-war regularisation exercises. The 1970s and 1980s was also a prominent period for humanitarian arrivals, especially from Viet Nam and Lebanon, which raised community anxieties surrounding migrant diversity and integration. Unauthorised boat arrivals became symbols of migration governance failure, with humanitarian arrivals demonised and reforms prompted (in 1979) providing a statutory basis for the visa system with accompanying offences and penalties (including deportation) for migrants and carriers breaching conditions. Unauthorised migration would continue to simmer politically and heat up again by the late 1980s, when the Tiananmen Square incident and Soviet Union collapse triggered an explosion in overstaying (Sherratt 2021).

A much firmer approach began in the early 1990s, first with temporary asylum visas introduced to remove obligations to provide permanent residency, greater powers to refuse or cancel visas, and most controversially the introduction of mandatory detention for those entering without a valid visa (1992) (Klapdor, Coombs, and Bohm 2009; J. Phillips and Spinks 2013b). Asylum seekers were criminalised, with boat arrivals singled out for hostile treatment. The clamps around illegal immigration would tighten slightly in subsequent years before 1999 began a period of major policy escalation, prompted in large part by asylum seeker boats from the Middle East (Human Rights Watch 2002; J. Phillips and Spinks 2013a). Penalties were increased and broadened to cover employers and sympathisers, while additional resources and powers were provided for offshore deterrence, surveillance and interception. The following year saw asylum seeker applications frozen and temporary protection visas (TPVs) created to further curtail rights. Then 2001 was the watershed year for border protection policies with the Tampa boat incident, the excise of offshore territories from Australia's migration zone, minimum sentencing for people smugglers, curtailed judicial review of asylum applications and offshore processing of unauthorised boat arrivals under the 'Pacific Solution' with asylum seekers transferred to detention centres in Nauru and Papua New Guinea (Australian Government 2001; A. M. Mayda 2005; Klapdor, Coombs, and Bohm 2009; Refugee Council of Australia 2020). These and supplementary policies would largely remain in place until a change of government in 2007/08, when the Pacific Solution and TPVs were abolished, detention was shortened and made last resort, funds were provided for voluntary repatriation and offshore deterrence and surveillance efforts became the focus instead. Illegal migration increased sharply, leading to another tightening phase of increased penalties, applications processing freezes, heightened surveillance powers and the ill-fated Malaysia solution for refugee exchange. Regional processing centres on Nauru and Papua New Guinea were reopened. The final phase of border policy (from 2013-2022) involved dramatic tightening and few boat arrivals, with Operation Sovereign Borders establishing a militaristic approach, TPVs restored, more offshore processing, long-term detention and efforts to expedite the legacy caseload (J. Phillips and Spinks 2013b; Refugee Council of Australia 2013; Morrison 2014a; 2014d; 2014b; 2014e; 2014c; 2020).

FDI policies

FDI policies changed little until the late 1960s, when there were rising concerns over foreign capital dependency and resource nationalism that spurred policy tightening. The tightening period culminated in the mid-1970s with mandatory Australian participation in new investments and the introduction of a prior approval mechanism under the *Foreign Takeovers Act 1975*. These interventions provided a semblance of perceived sovereignty over Australia's natural and business assets, but as investment flows underwhelmed and an economic ideology favouring competitive markets and lower trade and investment barriers gained traction, Australia began down a steady liberalisation path with accompanying moves to privatise government monopolies that impeded market access for foreign investors. While experiencing some bumps along the way, liberalisation would persist for over three decades. It ended with the most recent tightening phase (mostly since 2015), prompted by waning support for globalisation, growing Chinese investment, geopolitical instability (rising influence of national security considerations) and the changing nature of asset sales (critical infrastructure) (Figure 6.2). FDI has benefited from an overarching narrative that it supports economic development, but like migration has faced sovereignty and selectivity pressures.

Figure 6.2: FDI policy stringency changes by sub-indicator and FDI inflows, 1945-2020



Source: Author (policy indicators); UNCTAD 2021; World Bank 2021; Department of Foreign Affairs and Trade (DFAT) 2021; RBA 2021. Note higher values equal greater policy stringency. 'FDI weighted' is the overall FDI policy indicator using weighted measures to give greater primacy to certain subcategories (principally equity restrictions) whereas 'FDI unweighted' averages all subcategory indicators equally. 'Equity/ownership' captures policies limiting foreign ownership of businesses or assets, 'Screening/approval' reflects regulatory approval processes specific to foreign investors both pre- and post-investment in businesses or assets, 'Land ownership' captures regulatory considerations (including approvals) relating to foreign ownership of land (residential, commercial, agricultural) and 'Other policies' reflect residual policies including nationalisations/privatisation, capital controls, profit repatriation requirements, minimum capital requirements, activity constraints (such as incorporation type or bank branch limits) and taxation.

Among specific policies, equity restrictions are considered the most impactful on FDI inflows globally in limiting market access most (OECD 2015). Equity restrictions have played a limited role in Australia's FDI policy mix for the majority of the post-war period. Australia's immediate post-war equity restrictions were more implicit, in the form of government monopolies existing prior to or nationalised following the war. In 1968, the introduction of Investment Guidelines began a stepwise increase in expectations of Australian participation in projects that culminated (by the mid-1970s) in formal requirements of a 50 percent stake in mining and agriculture and 100 percent in uranium ventures (Australian Treasury 1968; Gorton 1969; Neilson 1973; Pokarier 2000; 2015; Uren 2015; Sherratt 2021). Concerns of overreach prompted the creation of a naturalisation rule in 1978 that allowed greater upfront ownership with a later expectation of increased Australian equity participation; though in practice it created a substantial loophole permitting additional foreign ownership (Australian Treasury n.d.). Further easing in the early 1980s came alongside broader financial liberalisation, before the Australian participation rule was eliminated for all except mining and selected restricted sectors (banking, aviation, media, uranium and developed real estate). With few exceptions, equity limits were abolished during the 1990s, with Australia eschewing formal restrictions in favour of a national interest based prior approval system (Australian Government 1992; 1995a; 1995b; Pokarier 2000; Parliament of Australia 2021; Australian Treasury n.d.).

Australia's post-war FDI system began without a prior approval mechanism specific to foreign investment, though emergency powers requiring the Treasurer's approval for all

business establishments and capital raisings continued until 1953 and exchange control powers lightly regulated funds transfers (Neilson 1973; Bell 1976). There was initial resistance to introducing formal powers, with attempts at suasion preferred as debate about foreign dependency first raged in the latter half of the 1960s. The government first intervened against potential takeovers under territories legislation¹⁴ before introducing an embryonic screening mechanism in 1972. This was a precursor to the *Foreign Takeovers Act 1975*, which framed the national interest test mechanism that continues today (Australian Government 1975; Pokarier 2015). The early prior approval system had a broad remit that was gradually eased over the three decades thereafter, with low value and low sensitivity transactions exempted from screening via unilateral reforms and preferential trade agreements. The screening system retains both flexibility and ambiguity beyond formal rules (the subjective national interest test and unlegislated policy documents with additional requirements), so measuring the degree of liberalisation over time is difficult. An alternative indicator constructed using investment approvals data suggests liberalisation in practice (from the investor perspective) was slower during the 1980s and much faster this century than changes to ‘on paper’ policies. Screening mechanisms and implementation have both taken a sharp tightening turn since 2014, with the biggest changes the introduction of national security powers applying to previously exempt and/or completed investments (beginning 2021) and increasingly steep fees on approvals (since 2015) (Abbott 2015b; 2015a; Australian Government 2019; Frydenberg 2020).

Akin to the screening story, land ownership rules in the immediate post-war period were essentially non-discriminatory. A minor exception was exchange control approval over funds transfers, which applied light touch approval. Domestic and foreign investors alike benefited from early improvements to rules governing government expropriation, with private property rights firmly established. Essentially non-discriminatory policies remained until 1973 when the government abruptly suspended exchange control approval for all foreign acquisitions of land pending a government study (Bell 1976). This was followed by a relaxation for land purchases incidental to business activities, with residential real estate acquisitions still on hiatus. Discriminatory rules became a permanent fixture under the *Foreign Takeovers Act* in 1975, with all urban land acquisitions and agricultural land acquisitions over \$1 million requiring prior approval (though permissible again). Land screening was gradually liberalised through higher thresholds over the following decade, but rising Japanese investment in real estate prompted tightening from 1987, most substantively restricting developed (existing) real estate purchases to Australian’s abroad, intending migrants and foreign companies for their senior executives. Revisions to the Act in 1989 further tightened urban land acquisitions, legislating previously policy-only requirements so that enforcement penalties applied (Australian Government 1989a). Other than minor liberalisations for tourism resorts and permanent migrants, there were few changes to land ownership rules for two decades thereafter. Across 2008 and 2009 the screening of purchases by temporary migrants, developers and accommodation facilities was substantively liberalised (Bowen 2008). However, the screening exemption for temporary migrants was soon reversed in 2010. Screening of foreign land purchases has similarly experienced a significant tightening phase since 2015, especially agricultural land purchases (for which a lower threshold required smaller investments to seek approval and an Australian opportunities test mandated initial

¹⁴ Granting the Commonwealth Government powers to intervene in Australian Capital Territory (and Northern Territory) affairs, which were extensive at the time.

advertisement to local investors only), stricter limits for off-the-plan developments, penalties for investment property vacancies and heightened compliance activity (Australian Treasury n.d.).

While ‘other policies’ are not discussed in detail, changes were mainly driven by exchange control reform until substantive liberalisation in 1983, waves of nationalisation (government taking control of industries or establishing sovereign funds to compete with foreign investors during the 1960s and 1970s), privatisation (government ceding control of industries, which prevailed during the 1990s and early 2000s), and foreigner-specific investment registration requirements (capturing all existing investments) and anti-tax avoidance measures more recently (Neilson 1973; Bell 1976). Policies under the ‘other’ category have sometimes had domestic interests in mind but have largely followed broader trends in other areas of FDI policy.

The next section outlines the empirical approach to exploring the influence of migration and FDI policy changes on factor inflows and economic outcomes in post-WWII Australia.

Data and methodology

Central to the analysis is the purpose-built set of quantitative policy indicators introduced in Chapter 5. The indicators are deployed in this chapter in pursuit of a more detailed understanding of the relationships between migration, FDI and economic outcomes with emphasis on the influence of migration and FDI policies. The analysis adds to the preceding examination of the relationship between migrant and FDI flows, exploring the influence of policy towards one factor flow, such as migration, on the other factor flow, FDI, covariance in historical policy changes, and the influence of policy on economic outcomes.

A significant additional contribution to the analysis comes from a more granular examination using the baseline policy indicator subcategories. Migration policies affecting legal entry and stay, exit, border control, and integration, can have contrasting objectives that complicate aggregation into a measure of overall restrictiveness. For example, secure borders and firm but fair exit policies can instil confidence in overall migration policy control, complementing entry and integration policies enhancing the experience for legal migrants. FDI policies affecting equity/ownership restrictions, screening and approval, land ownership and other restrictions/nationalisation do not have such stark contradictions, but robust screening and approval mechanisms can likewise be deployed to maintain an otherwise welcoming environment for investment. Isolating subcategory influence thus contributes to understanding the effect of policy and the opportunities there might be for their refinement.

Among the broader set of indicators, those prioritised for analysis in this chapter are:

- Migration policy indicators:
 - Overall weighted migration policy indicator (MBW) — an aggregate of the four subcategory indicators, weighted to give emphasis to legal entry and integration.
 - Migration legal entry indicator (MLE) — captures policies concerning migrants’ ability to enter and stay, including visa options, conditions and length, associated fees and permits, and rules surrounding the regularisation of illegal entrants.
 - Migration integration indicator (MIG) — captures policies governing post-entry rights and conditions, including the rights of migrants (and family)

to work or study, transitional support (language training, temporary housing), access to permanent residency and citizenship, social benefit eligibility, discrimination and cultural policies, and civic participation.

- FDI policy indicators:
 - Overall weighted FDI policy indicator (FBW) — an aggregate of the four subcategory indicators, weighted to give emphasis to equity restrictions.
 - FDI equity restrictions indicator (FPE) — captures policies wholly or partially limiting foreign ownership of businesses or assets.
 - FDI screening indicator (FPS) — captures regulatory approval processes specific to foreign investors both pre- and post-investment in businesses or assets.
 - FDI land indicator (FPL) — captures regulatory considerations (including approvals) relating to foreign ownership of land (residential, commercial, agricultural).
- Attitudes indicators:
 - Overall migration attitudes indicator (MASI0) — an aggregation of publicly surveyed attitudes on all aspects of migration.
 - Migration attitudes too great/too few indicator (MATGTF0) — a measure specific to attitudes on migration intake size.
 - FDI attitudes indicator (FASI) — a binary variable based on whether attitudes regarding FDI were surveyed or not in a given year.

The indicators feed into the time series dataset detailed in Chapter 5 (the analysis was undertaken concurrently). This chapter also uses familiar variables for permanent migrant arrivals (MPA) and temporary migrant arrivals (MTA) together with net overseas migration (MNOM) and total migration (MTOT, equal to MPA + MTA). The same gross FDI inflows variable is adopted here, as are economic variables for real GDP per capita (RGDPPC), unemployment rate (UNE), wages (WGE), the capital stock (CAP), technology proxy (TECH), trade share of GDP (TRADE), education levels (EDU), liberal democracy levels (LIB), and egalitarian democracy levels (EGALDEM).

The empirical methodology replicates that of Chapter 5, taking the traditional approach to VEC modelling. The results reflect Granger causality rather than strict causation (or ‘predictive causality’; Diebold 2017). A large (but not exhaustive) number of variable combinations is tested to inform the analysis, with the results presented below reflecting the preferred (most complete) models and summary averages for the broader set of specifications. The models in this chapter capture full period samples (broadly 1946-2019, depending on variable data availability) rather than any subsets thereof.

Expectations

As the analysis is traversing previously unexplored territory — in the absence of prior empirical explorations of policy influence on complementary factor flows — it is worth establishing hypotheses for the empirical investigation.

The first hypothesis is migration policy tightening, particularly for legal entry and integration, will reduce FDI inflows. Restricting legal entry or offering a less welcoming post-entry environment for expatriates may deter investors directly. Migration policy changes may also affect migration flows, and therefore FDI indirectly by reducing migration’s potential alleviation of skilled labour shortages (Porter and Rivkin 2012; Kusek and Silva 2018). There

are nonetheless arguments that run counter to the hypothesis, including that tightening of border controls could restore confidence in migration governance, that migration policies are ineffective or of marginal influence (as Chapter 2 discusses) or that migration policies could be sufficiently biased against foreign investors in favour of local firms that tightening reduces the competitive disadvantage from migration.

FDI policy tightening is similarly expected to reduce migrant inflows. Equity and screening policy restrictions that prevent foreign managers and technicians from migrating, as well as discriminatory land ownership rules that discourage or prevent migrant settlement, provide examples of direct channels of influence. Akin to the confounding argument for migration policies, migration policy biases favouring domestic firms would mean FDI policy tightening reduces competition against domestic firms that are relatively intensive migrant employers — indirectly increasing migration.

The relationship between migration and FDI policy changes is expected to be negative or insignificant. The broad data patterns in Figures 6.1 and 6.2 suggest a negative relationship, but more substantively there is little evidence that migration and FDI policy formulation has occurred concurrently. What the relationship between policy changes means for the relationship between migration and FDI flows and resulting economic outcomes is harder to gauge. A negative empirical relationship between migration and FDI policies could be the outcome of differing demand and supply pressures on FDI and migration over time, such that achieving positive inflows of both factors at levels considered optimal by policymakers is achieved through policy tightening for one factor and liberalising for the other. It could also reflect the differing response of migration and FDI flows to economic shocks and economic development, which could likewise prompt policies to liberalise for one factor and tighten for the other. But it could also reflect an absence of coordinated migration and FDI policy formulation towards shared objectives that would be consistent with optimising the positive relationship between migration and FDI flows, symptomatic of policy biases (favouring FDI over migration) that are not economically optimal.

That migration and FDI flows and policies in Australia have been routinely framed with reference to economic or development considerations — albeit with differing degrees of emphasis over time — suggests they each have objectives predisposing them to positive economic outcomes (higher growth, employment, capital deepening, for example). The starting hypothesis is therefore that policy settings and factor flows have supported Australia's economic development. Compared to migration and for much of the sample period, FDI inflows have been relatively unrestricted, suggesting fewer constraints on their flowing efficiently into productive pursuits that boost growth, employment and wages. Migrant inflows are substantially more regulated — including through criteria around approved occupations and migrant characteristics — with greater potential to distort efficient allocation of new migrant labour. However, migrant selection policies emphasise employment and economic growth opportunities, so successful implementation would suggest the accrual of economic dividends. Whether institutions, education and technological upgrading also benefit from migration policy liberalisation is less certain, as migration policies have preferenced workers over entrepreneurs. FDI policies have been largely unbiased towards sectors, until recently when security-related factors have broadened in scope and increased regulatory scrutiny.

Finally, improvements in public attitudes towards migration are expected to increase FDI, with the same expected of attitudes towards FDI and their effect towards those on migration. This hypothesis reflects expected positive relationships between attitudes and flows, between migration and FDI flows, and attitudes towards one foreign factor having potential spillovers to the other (that is, attitudes towards all ‘foreign factors’ involve some overlap).

Results and discussion

The tables in this section provide summary results for the relationships of interest in standard deviation and per unit shock terms. They present the preferred specification(s), the average, maximum and minimum impulse response across all specifications and the percentage of all specifications producing a statistically significant Granger-causal relationship.

The discussion is organised into sections by relationship type, respectively: flow-flow; migration policies-FDI flows; FDI policies-migration flows; policies-policies; flow-outcomes; and policies-outcomes.

Migration and FDI flows

Building on the argument in Chapter 5, Tables 6.1 and 6.2 add further policy-relevant specifications for permanent and temporary arrivals and extend the analysis to net and total migration. The effect of permanent migrants on FDI is not consistent across specifications, appearing more positive with the inclusion of migration policy variables (particularly legal entry) and more negative with FDI policy variables. The effects of temporary migrants on FDI are larger and more consistently positive under specifications incorporating FDI policy variables. The reverse relationship from FDI to temporary migration is also more positive (negative) with FDI (migration) policies included. In per migrant terms, the effect of net migration on FDI is in between that for temporary and permanent migration, whereas it is lower for total migration. Among the individual specification results for total migration, the specification capturing overall policies and another capturing approval requirements have more strongly positive coefficients, while the most complete specifications also evidence positive relationships.

The results provide further evidence of the complexity of the relationship between the migration and FDI flows, particularly how policies differentially effect permanent and temporary migration. Migration policy tightening supports FDI by increasing the positive influence of permanent migration on FDI attraction. This may reflect stricter selection criteria for the migrant intake (particularly in respect of skills) benefiting foreign investors. FDI policy meanwhile appears to increase the effect of temporary migration on FDI but reduce that of permanent migration, highlighting perhaps the greater symmetries between FDI and temporary migration. Likewise, that the results for total migration are larger in specifications controlling for policy highlights the importance of including policy measures in analysis to better identify factor flow relationships.

FDI policies and migration flows

While there appears some heterogeneity between policy subcategories, FDI policy tightening is generally associated with lower migration flows and migration flows with FDI policy tightening (Tables 6.3 and 6.4). A one unit increase in overall FDI policy restrictiveness — equivalent to a minor policy tightening — reduces permanent arrivals by 0.17 percent after five years and 0.02 percent (on average) after 15 years; and reduces temporary arrivals by a

considerably larger 0.96 percent after 15 years (or 6.6 percent per standard deviation increase). An equivalent increase in land policy restrictiveness has a larger and differential impact for permanent (strongly negative) and temporary (strongly positive) migrants. Intriguingly, tighter FDI screening increased permanent arrivals in the short run (five years) and temporary arrivals both short- and long-term.

Regarding the reverse relationship, permanent, total and net migration increases are all associated with overall FDI policy tightening. Permanent migration exerts about triple the influence on overall policy tightening as net migration (in per migrant terms). However, permanent migration may prompt liberalisation of some policies, including equity, screening, and land policies.

That FDI policy tightening reduces migration directly is interesting given the limited evidence that FDI reduces migration. Scrutiny of the specification results suggests it may be capturing third factors, as periods of FDI policy tightening are associated with sharpening anti-foreigner rhetoric that may discourage potential migrants. A cursory comparison of historical FDI policy tightening, the migration and FDI attitudes indicators and economic growth suggests policy tightening and worsening attitudes do not overlap neatly with prevailing economic conditions, which accords with a non-economic explanation like rising attention on foreigners or foreignness generally. The greater elasticity of temporary (relative to permanent) arrivals to overall FDI policy shifts is consistent with a signalling effect.

The results for land policies make more intuitive sense and perhaps reflect more explicit policy coordination. Migrants are themselves directly affected by land ownership rules, with tightening of policies around property seemingly deterring permanent migration and increasing temporary migration. Australia's rules, while discriminatory, afford all migrants opportunities to purchase property, with the findings suggesting policy discrimination represents a deterrent to transitioning to permanent settlement. The seemingly counterintuitive finding that tighter FDI screening rules encourage migration may have two explanations. The first is a longstanding argument — by both critics and advocates — that Australia's screening system facilitates instead of scrutinises investment, dampening popular criticism under an opaque veil of national interest criteria that are sparingly used to prohibit investment (Drysdale 2011; Johannan 2020). By this logic tightening the screening criteria reduces anti-foreigner sentiment generally, including towards migrants. The second is that FDI tightening increases domestic firm competitiveness, with domestic firms likely to be larger employers of migrants than foreign firms.¹⁵ Access to migrants, and policies providing access, tend to favour incumbent firms over new foreign investors, a point explored in the next section.

The findings for the reverse relationship are consistent with arguments that an increased foreigner presence may prompt overall FDI policy tightening. The divergence whereby permanent arrivals prompt screening and land policy liberalisation is more interesting, perhaps indicating some influence in securing self-benefiting concessions.

¹⁵ Data constraints prevent a sufficiently granular mapping of migrants and FDI by industry. However, broad patterns of investment and migration diverge, with FDI concentrated in capital-intensive mining and migrants in services.

Table 6.1: Migration and FDI relationships – per standard deviation shock

		MBW	FBW	MBW/FBW	MLE	FPS	MLE/FPS	MIG	MBW/FBW/UNE/CAP	MBW/FBW/EDU/LIB	AVG	MAX	MIN	% LR	% COMB
MPA → FDI	LR	0.55	-2.91	4.39	6.34	-1.44	5.13	-7.47	0.43	-9.10	4.23	54.00	-15.18	98.04	98.04
	SR										3.23	10.30	-8.58	14.29	
FDI → MPA	LR					-1.31			-0.17		7.20	38.75	-6.01	15.69	35.29
	SR	-1.43						-2.08			-0.24	2.77	-2.62	22.45	
MTA → FDI	LR	22.96	105.80	33.71		61.36	36.23	130.94		31.94	59.96	151.41	1.23	66.67	66.67
	SR										12.54	12.54	12.54	2.78	
FDI → MTA	LR	-2.37	130.88	1.93	-13.95	51.14	15.35	33.84	-1.46	8.63	18.15	130.88	-13.95	92.16	93.44
	SR										10.86	17.87	5.12	8.33	
MNOM → FDI	LR	2.29	0.14	11.24	-15.30	4.28		-15.10			8.14	50.69	-15.30	91.43	91.43
	SR							-6.76			1.55	8.03	-6.76	8.82	
FDI → MNOM	LR						-1.48				12.34	36.16	-1.48	8.57	71.42
	SR	-4.74	-1.14	-7.82	-5.52		-4.49	-6.30			-3.65	9.88	-7.89	67.65	
MTOT → FDI	LR		-2.96	7.11	-1.65		7.57	-6.41	1.95	1.46	7.23	51.55	-12.40	92.16	93.44
	SR										9.26	15.41	5.66	6.52	
FDI → MTOT	LR					0.20				-0.47	0.96	28.36	-22.17	25.49	41.18
	SR							-0.27			-0.53	3.32	-2.18	19.57	

Notes: The numbers in the first nine columns reflect the cumulative impulse response of a one standard deviation shock — in percentage terms after 15 years (LR) and five years (SR). The top row for these columns indicates the model controls (e.g. MBW — listed below). The darker green represents a statistically significant positive relationship at the 5% level; light green otherwise positive at the 10% level; darker red a negative relationship at the 5% level and pink at the 10% level. The subsequent three columns present the average, maximum and minimum response for all specifications (not just those highlighted in the table). The final two columns indicate the percentage of specifications for which the relationship is statistically significant (at the 10% level or better) in the long (15 years) and short run (five years) and combined for each of the specifications. Black squares indicate a single lag model (SR only) or a model that is not included in the analysis.

Legend: MPA (migrant permanent arrivals); MTA (migrant temporary arrivals); FDI (foreign direct investment); MBW (overall weighted migration policy indicator); FBW (overall weighted FDI policy indicator); MLE (migration legal entry indicator); MIG (migration integration indicator); FPS (FDI equity restrictions indicator); FPL (FDI land indicator); UNE (unemployment rate); CAP (capital stock); EDU/EDHCI (education – human capital index); LIB (institutions liberal democracy index); RGDP (real GDP per capita); WGE (real wages); TECH (technology index); TRADE (trade %GDP); and EGALDEM (institutions egalitarian democracy).

Table 6.2: Migration and FDI relationships – per migrant/investment shock

		MBW	FBW	MBW/FBW	MLE	FPS	MLE/FPS	MIG	MBW/FBW/UNE/CAP	MBW/FBW/EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MPA → FDI	LR	1.50	-7.97	12.02	17.37	-3.94	14.06	-20.47	1.18	-24.95	11.58	148.01	-41.62	98.04	98.04
	SR										8.86	28.24	-23.51	14.29	
FDI → MPA	LR					-0.07			-0.01		0.39	2.09	-0.32	15.69	35.29
	SR	-0.08						-0.11			-0.01	0.15	-0.14	22.45	
MTA → FDI	LR	12.95	59.70	19.02		34.62	20.45	73.88		18.02	33.83	85.43	0.69	66.67	66.67
	SR										7.08	7.08	7.08	2.78	
FDI → MTA	LR	-0.13	7.07	0.10	-0.75	2.76	0.83	1.83	-0.08	0.47	0.98	7.07	-0.75	92.16	93.44
	SR										0.59	0.97	0.28	8.33	
MNOM → FDI	LR	3.40	0.21	16.68	-22.69	6.35		-22.40			12.08	75.20	-22.69	91.43	91.43
	SR							-10.03			2.29	11.92	-10.03	8.82	
FDI → MNOM	LR						-0.08				12.34	36.16	-1.48	8.57	71.42
	SR	-0.26	-0.06	-0.42	-0.30		-0.24	-0.34			-0.20	0.53	-0.43	67.65	
MTOT → FDI	LR		-1.62	3.88	-0.90		4.13	-3.50	1.07	0.80	3.95	28.15	-6.77	92.16	93.44
	SR										5.06	8.42	3.09	6.52	
FDI → MTOT	LR					0.01				-0.03	0.05	1.53	-1.20	25.49	41.18
	SR							-0.01			-0.03	0.18	-0.12	19.57	

Notes: As per Table 6.1 except the values are per 100,000 migrants and US\$1 billion in investment.

Table 6.3: FDI policies and migration flows – per standard deviation

		FDI/M(BW/LE)	FDI/MBW/UNE/CAP	FDI/MBW/EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
FBW → MPA	LR		0.47		-0.11	5.38	-2.47	52.38	80.95
(BW)	SR	-1.90			-1.14	0.88	-5.39	52.63	
FBW → MTA	LR	1.26	-1.07	-8.78	-6.62	21.95	-27.07	95.24	95.24
(BW)	SR				N/R	N/R	N/R	0.00	
FBW → MTOT	LR	-0.49	0.45	-2.20	-4.83	7.05	-59.19	57.14	76.19
(BW)	SR				-0.89	1.09	-2.43	43.75	
FBW → MNOM	LR				-1.65	1.23	-4.79	53.85	92.31
(BW)	SR	-2.56			-1.02	6.37	-3.02	83.33	
FPE → MPA	LR	-1.88							
(LE)	SR	-1.45							
FPE → MTA	LR								
(LE)	SR								
FPS → MPA	LR								
(LE)	SR	3.98							
FPS → MTA	LR	20.39							
(LE)	SR	4.90							
FPL → MPA	LR								
(LE)	SR								
FPL → MTA	LR	37.65							
(LE)	SR								
MPA → FBW	LR	0.00	0.15	-0.03	0.17	1.06	-0.06	100.00	100.00
	SR		0.14	-0.02	0.09	0.16	-0.02	42.11	
MTA → FBW	LR				0.42	0.83	0.02	14.29	23.81
	SR			-0.06	0.02	0.10	-0.06	11.76	
MTOT → FBW	LR	0.02	0.16	0.04	0.12	0.66	-0.07	95.24	95.24
	SR		0.15		0.17	0.20	0.14	25.00	
MNOM → FBW	LR	0.02			0.10	0.35	0.02	100.00	100.00
	SR				0.06	0.12	-0.01	33.33	
MPA → FPE	LR	-10.94							
	SR								
MTA → FPE	LR								
	SR								
MPA → FPS	LR	-1.12							
	SR								
MTA → FPS	LR								
	SR								
MPA → FPL	LR	-0.55							
	SR								
MTA → FPL	LR								
	SR								

Notes: As per Table 6.1.

Table 6.4: FDI policies and migration flows – per policy unit/migrant shock

		FDI/M(BW/LE)	FDI/MPiBW/UNE/CAP	FDI/MBW/EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
FBW → MPA	LR		0.07		-0.02	0.78	-0.36	52.38	80.95
(BW)	SR	-0.28			-0.17	0.13	-0.78	52.63	
FBW → MTA	LR	0.18	-0.16	-1.28	-0.96	3.19	-3.93	95.24	95.24
(BW)	SR				N/R	N/R	N/R	0.00	
FBW → MTOT	LR	-0.07	0.07	-0.32	-0.70	1.02	-8.60	57.14	76.19
(BW)	SR				-0.13	0.16	-0.35	43.75	
FBW → MNOM	LR				-0.24	0.18	-0.70	53.85	92.31
(BW)	SR	-0.37			-0.15	0.93	-0.44	83.33	
FPE → MPA	LR	-0.23							
(LE)	SR	-0.17							
FPE → MTA	LR								
(LE)	SR								
FPS → MPA	LR								
(LE)	SR	0.64							
FPS → MTA	LR	3.29							
(LE)	SR	0.79							
FPL → MPA	LR								
(LE)	SR								
FPL → MTA	LR	9.71							
(LE)	SR								
MPA → FBW	LR	0.00	0.42	-0.09	0.48	2.91	-0.15	100.00	100.00
	SR		0.40	-0.06	0.25	0.44	-0.06	42.11	
MTA → FBW	LR				0.24	0.47	0.01	14.29	23.81
	SR			-0.04	0.01	0.05	-0.04	11.76	
MTOT → FBW	LR	0.01	0.09	0.02	0.07	0.36	-0.04	95.24	95.24
	SR		0.08		0.09	0.11	0.08	25.00	
MNOM → FBW	LR	0.04			0.15	0.52	0.03	100.00	100.00
	SR				0.08	0.18	-0.02	33.33	
MPA → FPE	LR	-29.99							
	SR								
MTA → FPE	LR								
	SR								
MPA → FPS	LR	-3.07							
	SR								
MTA → FPS	LR								
	SR								
MPA → FPL	LR	-1.49							
	SR								
MTA → FPL	LR								
	SR								

Notes: As per Table 6.1.

Migration policies and FDI flows

The relationship between migration policies and FDI inflows produces unexpected results, with migration policy tightening associated with higher FDI (Tables 6.5 and 6.6). The results for overall migration policies are somewhat inconsistent across specifications, averaging a large positive impulse response but statistically significant in only around half of all estimations (and predominantly short-term). Legal entry and integration policies produce more consistent evidence across specifications, with a standard deviation policy tightening increasing FDI by 2.1 to 17.8 percent for legal entry (short- and long-term respectively) and 10 and 8.2 percent for integration (short- and long-term respectively). The results for legal entry and integration appear larger and longer for temporary and permanent migrants respectively, suggesting differential effects.

For the reverse relationship, higher FDI inflows appear to prompt migration policy liberalisation but only in a very minor way over the long-term. The effect is about three times larger (but statistically significant in fewer specifications) for legal entry policies but still only represents a modest long-term policy shift. The effect differs for integration policies, positive on average but negative in the more complete specifications. The average result (FDI inflows leading to tighter integration policies) is driven by non-reported specifications that include combinations of variables include temporary migrants, intake diversity, and land policies.

Two leading candidate explanations for why migration policy tightening encourages FDI are offered. The first is that migration policy tightening in Australia has not reduced the number of migrants but increased their average quality. As shown in Chapter 5, reforms to migrant selection and temporary migration prioritising expected economic contribution appear to have made migration more favourable to FDI. An alternative but not necessarily contradictory explanation is that Australia's migration policies — and therefore migrant flows — favour incumbent firms. Migration and FDI policies are formulated independently of each other around differing objectives, with migration needs determined based on existing sector shortages and local company demands more than those of potential foreign firms. This accords with the arguments of temporary and skilled migration system critics who point to increasing use of migrants in less-skilled trades and services sectors (Mares 2013). Migration policy tightening would thus reduce the competitive benefit for incumbent firms and the barrier this represents for new foreign investor entry.

The larger legal entry effect in the temporary migrant specification is consistent with the first argument, that entry policies have raised migrant quality (stricter entry criteria prioritising educational attainment and more places allocated to skills stream migrants have at least increased average education). The larger integration policy effect in the permanent migrant specification is harder to explain given potentially contradictory measures captured here. For example, tightening access to welfare benefits may encourage greater labour force engagement, while tightening integration support such as language tutelage might encourage some migrants to depend more on ethnic networks and employment. On the other hand, tightening access to citizenship or job market integration programmes could reduce investment in migrant skills and experience, which is not beneficial for FDI. Rising discrimination against foreigners would also imply a relationship running in the opposite direction.

Table 6.5: Migration policies and FDI flows– per standard deviation

		MPA/FBW	MTA/FBW	MTOT/FBW	MPA/ FBW/ UNE/CAP	MPA/ FBW/ EDU/ LIB	MTA/ FBW/ UNE/CAP	MTA/ FBW/ EDU/ LIB	MTOT/ FBW/ UNE/CAP	MTOT/ FBW/ EDU/ LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FDI	LR					-3.12		35.12			23.98	132.52	-22.91	23.08	46.15
	SR	6.30	13.49						14.20		7.41	14.20	-0.69	31.71	
MLE → FDI	LR		35.06								17.77	63.80	-20.22	39.53	74.42
	SR	0.72		2.31							2.14	20.02	-10.87	64.10	
MIG → FDI	LR	29.60	-0.30	5.28							8.21	77.06	-25.26	80.00	88.00
	SR	16.96	25.59	7.13							10.02	25.59	-0.14	57.14	
FDI → MBW	LR	-2.37	-0.93	-2.07		-0.70		-0.78	3.03	-0.59	-0.50	11.86	-4.12	70.33	73.63
	SR										-0.27	1.58	-3.24	6.10	
FDI → MLE	LR	-6.65		-6.05							-1.67	9.99	-6.65	53.49	53.49
	SR										N/R	N/R	N/R	0.00	
FDI → MIG	LR		-1.43	-2.16							5.28	25.69	-4.60	52.00	60.00
	SR										-1.68	-0.64	-2.72	9.52	

Notes: As per Table 6.1.

Table 6.6: Migration policies and FDI flows– per investment/policy shock

		MPA/FBW	MTA/FBW	MTOT/FBW	MPA/ FBW/ UNE/CAP	MPA/ FBW/ EDU/ LIB	MTA/ FBW/ UNE/CAP	MTA/ FBW/ EDU/ LIB	MTOT/ FBW/ UNE/CAP	MTOT/ FBW/ EDU/ LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FDI	LR					-0.41		4.64			3.17	17.51	-3.03	23.08	46.15
	SR	0.83	1.78						1.88		0.98	1.88	-0.09	31.71	
MLE → FDI	LR		3.75								1.90	6.82	-2.16	39.53	74.42
	SR	0.08		0.25							0.23	2.14	-1.16	64.10	
MIG → FDI	LR	1.99	-0.02	0.35							0.55	5.17	-1.70	80.00	88.00
	SR	1.14	1.72	0.48							0.67	1.72	-0.01	57.14	
FDI → MBW	LR	-0.13	-0.05	-0.11		-0.04		-0.04	0.16	-0.03	-0.03	0.64	-0.22	70.33	73.63
	SR										-0.01	0.09	-0.17	6.10	
FDI → MLE	LR	-0.36		-0.33							-0.09	0.54	-0.36	53.49	53.49
	SR										N/R	N/R	N/R	0.00	
FDI → MIG	LR		-0.08	-0.12							0.29	1.39	-0.25	52.00	60.00
	SR										-0.09	-0.03	-0.15	9.52	

Notes: As per Table 6.1, except the values are in per US\$ billion in investment or per policy unit terms. The results for each of the policy terms are effectively an elasticity.

That the reverse relationship (FDI influence on migration policies) produced only a negligible effect was expected. Foreign investors might secure limited migration policy concessions for expatriate entry and liveability but are small fry in the overall scheme of migration policy influences.

Migration and FDI policies

Overall patterns suggest migration and FDI policies move in opposite directions with a statistically significant negative relationship (Tables 6.7 and 6.8). FDI policy liberalisation leads to longer-term migration policy tightening while migration policy changes do not appear to affect long-term FDI policies. Tightening of overall FDI policies is associated with long-term liberalisation of integration, legal entry and overall migration policies with an elasticity of about 0.35 (that is, a moderate to major FDI policy tightening results in a minor liberalisation of migration policies after 15 years). A similar magnitude effect applies for FDI equity restrictions and screening's influence on migrant legal entry policies and for land policies' influence on integration policies. The only positive long-term relationship (that is, moving in the same direction) is land policies' influence on legal entry policies.

The reverse relationship demonstrates greater heterogeneity in the results across specifications. There is very little evidence that overall migration policies or legal entry influence overall FDI policies, however integration policies exhibit a fairly robust positive relationship (predominantly long-term) with overall FDI policies. Most of the evidence suggests the negative relationship between legal entry policies and investment screening, the positive relationship between legal entry and land policies and the negative relationship between integration policies and land policies are bidirectional.

With exceptions specific to legal entry and land policies and integration and overall FDI policies, migration and FDI policies appear to have diverged during Australia's modern history. The first exception — legal entry and land policies pulling in the same direction (liberalisation or tightening) — is telling as it reflects a policy area with explicit migration interlinkages, especially during the early settlement period. In more recent times there also appears a pragmatic element to the land acquisition rules that recognises the living needs of migrants, though whether changes are explicitly linked to decision-making is unknown (Foreign Investment Review Board 2022). The second exception — liberalisation of integration policy being associated with FDI policy liberalisation — perhaps reflects measures linking liveability with improvements to the investment environment.

Overall policy divergence does not reflect the arbitrary starting point of the indicators, as both factors faced relatively liberal policies within a narrow range of flows (British dominated). Policy divergence has been stark and prevailing throughout most of the period since as the earlier figures showed. These paths appear to have been determined independently towards separate policy goals.

Table 6.7: Migration and FDI policies – per standard deviation

		MPA/ FDI	MTA/ FDI	MTOT/ FDI	MPA/FDI/ UNE/CAP	MTA/FDI/ UNE/CAP	MTOT/FDI/ UNE/CAP	MPA/FDI/ EDU/LIB	MTA/FDI / EDU/LIB	MTA/FDI / EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FBW	LR		0.55			0.32					0.41	0.82	0.03	16.46	17.72
	SR										0.34	0.34	0.34	1.41	
FBW → MBW	LR	0.50	1.41	-1.98	-1.90	0.07	-1.83	-4.47	-0.88	-4.30	-2.43	1.41	-7.42	88.61	91.14
	SR				-1.22		-1.26				-1.64	-0.21	-2.44	22.54	
MLE → FBW	LR										0.28	0.34	0.21	28.57	28.57
	SR										N/A	N/A	N/A	0.00	
FBW → MLE	LR										-2.21	0.25	-3.85	100.00	100.00
	SR										-2.35	-2.35	-2.35	14.29	
MIG → FBW	LR										0.95	1.63	0.51	57.14	71.43
	SR										0.24	0.24	0.24	14.29	
FBW → MIG	LR										-2.49	0.78	-6.62	100.00	100.00
	SR										-1.78	-0.60	-2.97	50.00	
MLE → FPS	LR		-5.32								-6.74	-3.28	-14.55	57.14	57.14
	SR		-1.73								-1.73	-1.73	-1.73	20.00	
FPS → MLE	LR	-0.42	-3.55	0.60							-2.65	0.60	-8.10	100.00	100.00
	SR										N/A	N/A	N/A	0.00	
MLE → FPE	LR		0.26								0.26	0.26	0.26	14.29	14.29
	SR										N/A	N/A	N/A	0.00	
FPE → MLE	LR	3.57	-4.42	-2.39							-3.00	3.57	-6.43	100.00	100.00
	SR		-3.24	-1.34							-2.43	-1.34	-3.24	57.14	
MLE → FPL	LR		-0.04								3.41	12.92	-0.04	57.14	57.14
	SR										N/A	N/A	N/A	0.00	
FPL → MLE	LR	2.46	0.98	-3.51							5.50	18.43	-3.51	71.43	71.43
	SR										N/A	N/A	N/A	0.00	
MIG → FPL	LR	-2.35		-2.13							-1.54	0.79	-3.73	85.71	85.71
	SR	-1.70		-0.97							-1.35	-0.71	-2.01	57.14	
FPL → MIG	LR	0.40	2.80	-6.72							-1.27	2.80	-7.20	85.71	85.71
	SR										N/A	N/A	N/A	0.00	

Notes: As per Table 6.1, except the values are in per policy unit terms — effectively an elasticity.

Table 6.8: Migration and FDI policies – per policy shock

		MPA/ FDI	MTA/ FDI	MTOT/ FDI	MPA/FDI/ UNE/CAP	MTA/FDI/ UNE/CAP	MTOT/FDI/ UNE/CAP	MPA/FDI/ EDU/LIB	MTA/FDI / EDU/LIB	MTA/FDI / EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FBW	LR		0.07			0.04					0.05	0.11	0.00	16.46	17.72
	SR										0.04	0.04	0.04	1.41	
FBW → MBW	LR	0.07	0.20	-0.29	-0.28	0.01	-0.27	-0.65	-0.13	-0.63	-0.35	0.20	-1.08	88.61	91.14
	SR				-0.18		-0.18				-0.24	-0.03	-0.35	22.54	
MLE → FBW	LR										0.03	0.04	0.02	28.57	28.57
	SR										N/A	N/A	N/A	0.00	
FBW → MLE	LR										-0.32	0.04	-0.56	100.00	100.00
	SR										-0.34	-0.34	-0.34	14.29	
MIG → FBW	LR										0.06	0.11	0.03	57.14	71.43
	SR										0.02	0.02	0.02	14.29	
FBW → MIG	LR										-0.36	0.11	-0.96	100.00	100.00
	SR										-0.26	-0.09	-0.43	50.00	
MLE → FPS	LR		-0.57								-0.72	-0.35	-1.55	57.14	57.14
	SR		-0.19								-0.19	-0.19	-0.19	20.00	
FPS → MLE	LR	-0.07	-0.57	0.10							-0.43	0.10	-1.31	100.00	100.00
	SR										N/A	N/A	N/A	0.00	
MLE → FPE	LR		0.03								0.03	0.03	0.03	14.29	14.29
	SR										N/A	N/A	N/A	0.00	
FPE → MLE	LR	0.43	-0.53	-0.29							-0.36	0.43	-0.77	100.00	100.00
	SR		-0.39	-0.16							-0.29	-0.16	-0.39	57.14	
MLE → FPL	LR		0.00								0.36	1.38	0.00	57.14	57.14
	SR										N/A	N/A	N/A	0.00	
FPL → MLE	LR	0.64	0.25	-0.91							1.42	4.75	-0.91	71.43	71.43
	SR										N/A	N/A	N/A	0.00	
MIG → FPL	LR	-0.16		-0.14							-0.10	0.05	-0.25	85.71	85.71
	SR	-0.11		-0.07							-0.09	-0.05	-0.13	57.14	
FPL → MIG	LR	0.10	0.72	-1.73							-0.33	0.72	-1.86	85.71	85.71
	SR										N/A	N/A	N/A	0.00	

Notes: As per Table 6.7.

While determining optimal settings for concurrent factor inflows (that is, a country's carrying capacity for new migrants and FDI together) would require a different modelling approach, policy divergence could reflect suboptimal influences. Three such influences are offered. First, ideological shifts are evident in shaping both sets of policies. FDI policy shifts were highly influenced by first dependency concerns, then reaping globalisation's benefits and lastly security narratives. Migration began with a survival imperative to boost population growth, which eased and gradually shifted as Australia's increasing prosperity and diversity saw the supply of potential migrants outstrip demand. Ideological shifts towards prioritising economically beneficial migrants and maintaining secure borders further shaped policies. Second, prevailing biases evident globally and in Australia favouring FDI over migration that have persisted since the rise of 'economic rationalism' in the 1980s (Pussey 1991), which triggered policies that were more selective of migrants and less interventionist towards investors. Third, arguments underpinning FDI policies shifted to a longer-term orientation less reactive to short-term economic fluctuations and political sensitivities. By contrast, the mindset around migration has become increasingly short-sighted and susceptible to economic fluctuations, particularly unemployment.

On the other hand, the negative relationships could also reflect innocuous forces. Net migration and net FDI ordinarily follow different trajectories along the development path, with net migration increasing with development and FDI following a J curve (Narula and Dunning 2010; Clemens 2014). Another reason could be periodic shocks to supply and demand that drive changes to one or other factor policies. Sustainable long-term inflows of both migration and FDI may require a positive or negative relationship between policies depending on such factors. This analysis can only conclude that historical evidence uncovers policy divergence without identifying the reasons why.

Factor flow outcomes

Economic outcomes for permanent and temporary migration are discussed in Chapter 5, with the overall migration results and selected policy specifications added here (Tables 6.9 and 6.10). Recapping briefly, permanent arrivals (vis-à-vis temporary arrivals) are associated with a much larger decrease in unemployment rate, higher wages, around triple the GDP per capita increase and a greater boost to technology and egalitarian democracy;¹⁶ but a lesser (and negative) contribution to capital deepening and trade. While overall migration and FDI policy tightening appear to support a higher GDP per capita dividend from migration flows, FDI policy tightening reduces the wage benefits from migration. Likewise, migration and FDI policy influences (migration in particular) reduce the capital stock contributions of both permanent and temporary migration.

FDI increases have generally delivered positive outcomes (Tables 6.11 and 6.12). FDI has strong unemployment and wage benefits that are somewhat diluted in specifications including policy variables. FDI is also associated with a 0.39 percent higher GDP per capita per US\$1 billion in additional investment, with the benefit almost zero under the specification with permanent arrivals only but as high as 0.98 percent per billion when overall migration and FDI policies are added. FDI increases also appear to be capital stock increasing (rather than crowding out domestic capital), though there is considerable variability across specifications.

¹⁶ Equality of rights and freedoms, access to power and distribution of resources (Coppedge et al. 2021).

That temporary migrants appear associated with lesser GDP per capita and labour market benefits (per migrant) despite being more positively associated with FDI and capital deepening could reflect their lesser long-term integration, including investments in upskilling. One possibility is that temporary migrants might occupy less skilled and productive jobs than is intended under skills-biased selection policies. To the extent that temporary migrant selection policies seek to mitigate rising wages without raising unemployment, they could be viewed more successfully. That migration (and to a lesser extent FDI) policies reduce the contribution to the capital stock of permanent migrants may reflect migrant selection policies that preference migrant employment over entrepreneurship and investment.¹⁷ Evidence also suggests that migration policies are working to enhance GDP outcomes for each migrant type and FDI, likely through selecting more skilled migrants and by facilitating expatriate transfers, fulfilling a leading policy objective.

A closer examination indicates that the FDI to real GDP per capita relationship is quite consistent across all (including unreported) specifications that include FDI policy variables. This suggests FDI policies have limited influence on the economic contribution of FDI. This accords with Australia's non-interventionist ownership rules and official claims that screening does not deter investment. Migration policies appear to have enhanced FDI benefits by increasing the skills and economic orientation of migrants.

¹⁷ In 2021-22, only around 10,500 out of 89,000 skilled and 143,500 total permanent visas were in the business, investment and entrepreneurship category, and there were an additional 62,000 temporary skilled work visas, 97,000 working holiday visas, and 263,700 student visas with work rights (Department of Home Affairs 2022).

Table 6.9: Migration flow outcomes – per standard deviation

		FDI/MBW/FBW	MBW	MLE	MIG	FDI/MBW/FBW/(*)	AVG	MAX	MIN	% LR	% COMB
MPA → UNE (CAP)	LR	-0.76	-0.84	-36.40	23.25	-8.60	-12.09	23.25	-71.72	100.00	100.00
MTA → UNE (CAP)	SR				-7.81		-7.81	-7.81	-7.81	14.29	14.29
MTOT → UNE (CAP)	LR	-4.72	0.80	-2.99	-2.68	-11.56	-6.48	12.26	-58.78	100.00	100.00
MPA → WGE	LR	-0.76	0.12	-0.04	0.07		3.50	26.40	-1.65	88.89	100.00
MTA → WGE	LR						N/A	N/A	N/A	0.00	0.00
MTOT → WGE	LR	-0.22	-0.05	-0.47	0.11		4.02	29.86	-1.63	88.89	100.00
MPA → CAP (UNE)	LR	-9.27	-5.07	-3.62	-8.27	-0.03	-2.61	9.02	-9.27	100.00	100.00
MTA → CAP (UNE)	LR	26.46	8.43	40.16	43.19		38.52	82.97	8.43	85.71	85.71
MTOT → CAP (UNE)	LR	-4.62	-4.80	-4.17	-6.28	-1.35	-1.34	6.48	-6.28	100.00	100.00
MPA → RGDPPC	LR	2.65	3.33	1.81	3.41		2.88	3.41	1.81	83.33	83.33
MTA → RGDPPC	LR	9.79	0.96	-0.10	2.85		4.53	9.79	-0.10	83.33	83.33
MTOT → RGDPPC	LR	0.09	3.76	1.14	2.69		1.61	4.14	-2.16	100.00	100.00
MPA → TECH	LR	1.70	-1.02	-0.02	-0.55		0.21	1.70	-1.02	83.33	83.33
MTA → TECH	LR						0.31	0.31	0.31	16.67	33.33
MTOT → TECH	LR	0.57	-0.26	0.01	-0.56		0.15	1.74	-0.60	100.00	100.00
MPA → TRADE	LR	0.47		0.87	1.50		0.08	1.50	-3.54	83.33	83.33
MTA → TRADE	LR	5.65	3.99	7.48	3.72		4.11	7.97	-4.12	100.00	100.00
MTOT → TRADE	LR	2.05	1.43		-5.97		0.38	5.42	-5.97	83.33	83.33
MPA → EDU (LIB)	LR	-0.03				-0.02	-0.07	-0.01	-0.22	100.00	100.00
MTA → EDU (LIB)	LR	-0.22				-0.20	-0.22	-0.20	-0.25	75.00	75.00
MTOT → EDU (LIB)	LR	-0.06				-0.05	-0.06	0.08	-0.22	100.00	100.00
MPA → LIB (EDU)	LR	-0.07				-0.04	-0.16	-0.04	-0.47	100.00	100.00
MTA → LIB (EDU)	LR						0.80	0.80	0.80	25.00	25.00
MTOT → LIB (EDU)	LR					-0.06	0.89	2.78	-0.06	75.00	75.00
MPA → EGALDEM	LR	2.14					1.80	2.14	1.30	100.00	100.00
MTA → EGALDEM	LR						-0.19	-0.19	-0.19	33.33	33.33
MTOT → EGALDEM	LR	-1.15					-0.52	-0.07	-1.15	100.00	100.00

Notes: As per Table 6.1.

Table 6.10: Migration flow outcomes – per migrant shock

		FDI/MBW/FBW	MBW	MLE	MIG	FDI/MBW/FBW/(*)	AVG	MAX	MIN	% LR	% COMB
MPA → UNE (CAP)	LR	-2.09	-2.29	-99.78	63.72	-23.57	-33.13	63.72	-196.58	100.00	100.00
MTA → UNE (CAP)	SR				-4.41		-4.41	-4.41	-4.41	14.29	14.29
MTOT → UNE (CAP)	LR	-2.58	0.44	-1.63	-1.46	-6.31	-3.54	6.69	-32.10	100.00	100.00
MPA → WGE	LR	-2.09	0.32	-0.12	0.18		9.58	72.35	-4.53	88.89	100.00
MTA → WGE	LR						N/A	N/A	N/A	0.00	0.00
MTOT → WGE	LR	-0.12	-0.03	-0.26	0.06		2.19	16.30	-0.89	88.89	100.00
MPA → CAP (UNE)	LR	-25.40	-13.91	-9.92	-22.66	-0.08	-7.15	24.71	-25.40	100.00	100.00
MTA → CAP (UNE)	LR	14.93	4.76	22.66	24.37		21.73	46.82	4.76	85.71	85.71
MTOT → CAP (UNE)	LR	-2.52	-2.62	-2.28	-3.43	-0.74	-0.73	3.54	-3.43	100.00	100.00
MPA → RGDPPC	LR	7.27	9.14	4.97	9.36		7.89	9.36	4.97	83.33	83.33
MTA → RGDPPC	LR	5.53	0.54	-0.05	1.61		2.55	5.53	-0.05	83.33	83.33
MTOT → RGDPPC	LR	0.05	2.05	0.62	1.47		0.88	2.26	-1.18	100.00	100.00
MPA → TECH	LR	4.66	-2.80	-0.07	-1.52		0.57	4.66	-2.80	83.33	83.33
MTA → TECH	LR						0.17	0.17	0.17	16.67	33.33
MTOT → TECH	LR	0.31	-0.14	0.01	-0.30		0.08	0.95	-0.33	100.00	100.00
MPA → TRADE	LR	1.28		2.38	4.12		0.23	4.12	-9.71	83.33	83.33
MTA → TRADE	LR	3.19	2.25	4.22	2.10		2.32	4.50	-2.33	100.00	100.00
MTOT → TRADE	LR	1.12	0.78		-3.26		0.21	2.96	-3.26	83.33	83.33
MPA → EDU (LIB)	LR	-0.08				-0.06	-0.20	-0.04	-0.61	100.00	100.00
MTA → EDU (LIB)	LR	-0.12				-0.11	-0.13	-0.11	-0.14	75.00	75.00
MTOT → EDU (LIB)	LR	-0.03				-0.03	-0.03	0.04	-0.12	100.00	100.00
MPA → LIB (EDU)	LR	-0.19				-0.10	-0.44	-0.10	-1.29	100.00	100.00
MTA → LIB (EDU)	LR						0.45	0.45	0.45	25.00	25.00
MTOT → LIB (EDU)	LR					-0.03	0.49	1.52	-0.03	75.00	75.00
MPA → EGALDEM	LR	5.85					4.94	5.85	3.57	100.00	100.00
MTA → EGALDEM	LR						-0.11	-0.11	-0.11	33.33	33.33
MTOT → EGALDEM	LR	-0.63					-0.28	-0.04	-0.63	100.00	100.00

Notes: As per Table 6.1.

Table 6.11: FDI flow outcomes – per standard deviation

		MPA/MBW/ FBW	MTA/MBW/ FBW	MTOT/MBW/ FBW	FBW	FPE	FPS	MPA/MBW/ FBW/(*)	MTA/MBW/ FBW/(*)	MTOT/MBW/ / FBW/(*)	AVG	MAX	MIN	% LR	% COMB
FDI → UNE (CAP)	LR	-0.70		-0.24	-31.64	-9.42	-4.13	-2.88		-1.26	-34.84	7.97	-248.74	73.91	78.26
FDI → WGE	LR	0.77		-0.02			0.10				0.29	1.09	-0.92	47.83	85.00
FDI → RGDPPC	LR	18.21	6.20	0.11	5.26	4.64	4.28				7.25	20.20	0.11	100.00	100.00
FDI → TECH	LR	-1.93			-3.60		-3.12				-4.00	-1.93	-7.91	45.00	45.00
FDI → CAP (UNE)	LR	13.00	-2.44	13.50	32.64		0.15	7.80	1.99	8.32	9.38	43.77	-8.73	95.65	95.65
FDI → TRADE	LR	-0.07	-1.99	-0.87							8.27	63.75	-3.94	45.00	50.00
FDI → EDU (LIB)	LR		-0.02						0.04		-0.07	0.45	-1.47	50.00	100.00
FDI → LIB (EDU)	LR										-0.05	-0.05	-0.05	6.25	6.25
FDI → EGALDEM	LR	-2.73	1.24								2.12	8.80	-2.73	53.85	61.54

Notes: As per Table 6.1.

Table 6.12: FDI flow outcomes – per investment shock

		MPA/MBW/ FBW	MTA/MBW/ FBW	MTOT/MBW/ FBW	FBW	FPE	FPS	MPA/MBW/ FBW/(*)	MTA/MBW/ FBW/(*)	MTOT/MBW/ / FBW/(*)	AVG	MAX	MIN	% LR	% COMB
FDI → UNE (CAP)	LR	-0.04		-0.01	-1.71	-0.51	-0.22	-0.16		-0.07	-1.88	0.43	-13.44	73.91	78.26
FDI → WGE	LR	0.04		0.00			0.01				0.02	0.06	-0.05	47.83	85.00
FDI → RGDPPC	LR	0.98	0.34	0.01	0.28	0.25	0.23				0.39	1.09	0.01	100.00	100.00
FDI → TECH	LR	-0.10			-0.19		-0.17				-0.22	-0.10	-0.43	45.00	45.00
FDI → CAP (UNE)	LR	0.70	-0.13	0.73	1.76		0.01	0.42	0.11	0.45	0.51	2.37	-0.47	95.65	95.65
FDI → TRADE	LR	0.00	-0.11	-0.05							0.45	3.44	-0.21	45.00	50.00
FDI → EDU (LIB)	LR		0.00						0.00		0.00	0.02	-0.08	50.00	100.00
FDI → LIB (EDU)	LR										0.00	0.00	0.00	6.25	6.25
FDI → EGALDEM	LR	-0.15	0.07								0.11	0.48	-0.15	53.85	61.54

Notes: As per Table 6.1.

Policy outcomes

Building upon the indirect influence of policy discussed in the preceding section, this section discusses the findings for direct policy influence on selected economic variables (Tables 6.13 and 6.14).

Migration policy tightening appears to be associated with reduced unemployment — most convincingly in the short-term — but also with lower wages, capital deepening and GDP per capita. A one-unit migration policy tightening is associated with 1.7 percent (relatively speaking not by 170 basis points) lower unemployment over five years, 1 percent lower capital stock and about half a percent lower GDP per capita over 15 years. The GDP per capita reduction is larger under the preferred specifications that include FDI and FDI policies. FDI policy tightening is found to increase unemployment, reduce wages and per capita growth but perhaps counterintuitively increase the capital stock. A one-unit policy tightening is associated with long-term unemployment that is almost 1.6 percent higher and GDP per capita that is 0.4 percent lower, but around a 0.9 percent higher capital stock.

The migration policy findings are consistent with earlier arguments that policy tightening around skills and temporariness may have improved employment outcomes but resulted in downward pressure on wages, capital deepening and GDP per capita. Permanent migrants deliver greater returns to wages and real GDP per capita but policies have preferenced rapidly increasing temporary migrant numbers in recent decades. That migration policy tightening results in lower wages also suggests some misalignment in skills selection policies — resulting in some combination of lesser skilled migrants than intended, underemployment among skilled migrants or the suppression of overall skilled wages by skewing the intake too far towards skills. Overall, the results suggest migration policy tightening has not been economically beneficial to Australia despite being associated with increased FDI.

FDI policy tightening appears to have hurt the economy, limiting the labour market benefits and associated welfare gains of factor flows. This includes by decreasing FDI, though this relationship is not addressed directly in this thesis.

Table 6.13: Migration and FDI policies and outcomes – per standard deviation

		MPA/FDI/FBW	MTA/FDI/BW	MPA/FDI/FBW/(*)	MTA/FDI/FBW/(*)	AVG	MAX	MIN	% LR/SR	% COMB
MBW → UNE (CAP)	LR					-37.57	4.96	-103.29	50.00	95.45
	SR	-8.52	-10.44	-11.97		-12.89	-1.72	-36.62	95.45	
MBW → WGE	LR					-0.26	-0.26	-0.26	5.26	89.47
	SR	-0.28				-0.27	0.24	-0.53	94.44	
MBW → CAP (UNE)	LR			-6.20	-2.42	-7.34	-2.42	-12.42	50.00	50.00
	SR					3.17	3.90	2.44	15.38	
MBW → RGDPPC	LR	-15.19	-7.27			-3.69	1.51	-15.19	73.68	78.95
	SR		-2.31			-0.68	0.68	-2.31	35.71	
FBW → UNE (CAP)	LR	-25.27	3.44	14.33		10.80	34.93	-25.27	90.91	90.91
	SR					11.38	15.15	7.61	18.18	
FBW → WGE	LR	0.21				-0.89	0.21	-4.92	75.00	87.50
	SR	0.18				-0.43	0.18	-1.84	100.00	
FBW → CAP (UNE)	LR	12.97	15.98	13.64	3.10	6.01	16.96	-13.69	100.00	100.00
	SR					1.10	5.21	-3.01	25.00	
FBW → RGDPPC	LR	-3.69	-1.78			-2.84	0.30	-7.34	100.00	100.00
	SR					N/R	N/R	N/R	0.00	

Notes: As per Table 6.1.

Table 6.14: Migration and FDI policies and outcomes – per unit policy shock

		MPA/FDI/FBW	MTA/FDI/BW	MPA/FDI/FBW/(*)	MTA/FDI/FBW/(*)	AVG	MAX	MIN	% LR/SR	% COMB
MBW → UNE (CAP)	LR					-4.96	0.65	-13.65	50.00	95.45
	SR	-1.13	-1.38	-1.58		-1.70	-0.23	-4.84	95.45	
MBW → WGE	LR					-0.03	-0.03	-0.03	5.26	89.47
	SR	-0.04				-0.04	0.03	-0.07	94.44	
MBW → CAP (UNE)	LR			-0.82	-0.32	-0.97	-0.32	-1.64	50.00	50.00
	SR					0.42	0.52	0.32	15.38	
MBW → RGDPPC	LR	-2.01	-0.96			-0.49	0.20	-2.01	73.68	78.95
	SR		-0.31			-0.09	0.09	-0.31	35.71	
FBW → UNE (CAP)	LR	-3.67	0.50	2.08		1.57	5.08	-3.67	90.91	90.91
	SR					1.65	2.20	1.11	18.18	
FBW → WGE	LR	0.03				-0.13	0.03	-0.72	75.00	87.50
	SR	0.03				-0.06	0.03	-0.27	100.00	
FBW → CAP (UNE)	LR	1.88	2.32	1.98	0.45	0.87	2.46	-1.99	100.00	100.00
	SR					0.16	0.76	-0.44	25.00	
FBW → RGDPPC	LR	-0.54	-0.26			-0.41	0.04	-1.07	100.00	100.00
	SR					N/R	N/R	N/R	0.00	

Notes: As per Table 6.1.

Attitudes

While extensive empirical analysis using the attitude indicators is beyond the scope of this thesis, this section presents summary results for selected specifications (including each of the migration variables, FDI, and overall policies). Consistent with the relationships for factor flows and policies, but also potentially reflecting relative indicator strength¹⁸, attitudes towards migration appear a much better predictor of FDI and FDI policies than FDI attitudes are of migration and migration policies. A standard deviation increase (more favourable attitudes) in the overall migration attitudes indicator is associated with a 10.5 percent cumulative increase in long-term FDI, while the equivalent effect is 18.6 percent for a sub-indicator representing attitudes on intake size. The difference between the most and least favourable attitudes historically is over five times this, being associated with 53 and 105 percent more FDI respectively. That improved migration attitudes trigger FDI policy tightening is perhaps further evidence that a supportive migration environment positively signals investors, with increased investment then prompting greater policy scrutiny. The reverse relationship appears to work for policies more than investment, with FDI policy tightening improving migration attitudes.

Improved attitudes towards migration are also harbingers of positive economic outcomes, particularly reduced unemployment and higher GDP per capita. Positivity towards migrants is potentially accompanied by stronger economic conditions, support for migrant integration and a more favourable disposition towards migrant employment alongside complementary local jobs. Likewise, a more positive attitude towards migrants would seem conducive to maximising their GDP contribution, compared to periods of heightened discrimination and exclusion. The difference between the least and most favourable attitudes is 3.8-4.7 percent higher long-term GDP per capita.

Attitudes towards FDI are not a great predictor of migration or associated policies, with temporary migration the lone exception. Years in which data on attitudes were collected predict an increase in temporary migration — about 31 percent more longer-term than non-collection years. This perhaps accords with findings that temporary migration benefits incumbent industries more than new investors, with a rise in temporary migrants a flow-on effect from greater scrutiny surrounding FDI. Greater FDI scrutiny is also associated with a short-term unemployment rate increase and higher long-term capital stock and GDP per capita, though the precise mechanisms underpinning these associations are difficult to gauge.

The reverse relationship appears more convincing and compelling, with more and more diverse migrants associated with greater attention to FDI. A standard deviation migration quantity shock increases the likelihood of FDI scrutiny by over 50 percent, rising to 200 percent for temporary migrants. The effect is 161 percent for a standard deviation increase in intake diversity, a smaller positive for net migration and slightly negative for an increased skill share (that is, a more skilled intake reduces FDI scrutiny). In per migrant terms, permanent migrants are most associated with greater FDI scrutiny followed by temporary migrants. Migration policy tightening is associated with a marginally lower likelihood of FDI scrutiny.

¹⁸ The migration attitudes indicators are continuous variables reflecting a variety of questions and responses, whereas the FDI attitudes indicator is a binary indicator simply reflecting years in which a question was asked.

Table 6.15: Attitudes, factor flows and outcomes – per standard deviation

		AVG	MAX	MIN	% LR/SR	% COMB
MASIO → FDI	LR	10.48	122.94	-61.12	93.88	93.88
MATGTF0 → FDI	LR	18.56	142.01	-21.86	86.05	90.70
MASIO → FBW	LR	0.09	0.19	0.00	91.67	100.00
MATGTF0 → FBW	LR	0.51	1.72	0.07	100.00	100.00
MASIO → UNE	LR	-15.28	-1.58	-20.53	100.00	100.00
MATGTF0 → UNE	LR	-17.01	-1.37	-30.32	83.33	83.33
MASIO → WGE	LR	0.32	1.79	-0.69	50.00	83.33
MATGTF0 → WGE	LR	-0.79	0.34	-3.44	66.67	100.00
MASIO → RGDPPC	LR	0.75	6.12	-5.04	83.33	83.33
MATGTF0 → RGDPPC	LR	0.83	3.19	-0.63	66.67	66.67
MASIO → CAP	LR	-5.74	-1.50	-10.18	83.33	83.33
MATGTF0 → CAP	LR	-8.45	5.60	-15.75	66.67	100.00
FDI → MASIO	LR	115.19	314.47	8.86	12.24	14.29
FDI → MATGTF0	LR	80.02	332.02	-56.19	41.86	48.84
FBW → MASIO	LR	2.61	22.56	-22.90	83.33	83.33
FBW → MATGTF0	LR	27.60	65.65	-11.90	83.33	83.33
FASI → MPA	LR	-13.61	-13.61	-13.61	11.11	22.22
FASI → MTA	LR	15.64	68.50	-21.96	77.78	77.78
FASI → MNOM	SR	3.10	3.10	3.10	14.29	11.11
FASI → MSS	LR	-0.02	3.37	-4.63	44.44	44.44
FASI → MCDI	LR	-51.78	-51.78	-51.78	11.11	11.11
FASI → MTOT	SR	-2.53	0.53	-5.58	22.22	22.22
FASI → MBW	LR	1.05	1.70	0.40	16.67	16.67
FASI → UNE	SR	4.80	5.37	3.92	50.00	50.00
FASI → WGE	LR	-0.90	-0.90	-0.90	16.67	16.67
FASI → RGDPPC	LR	1.27	10.51	-3.71	83.33	83.33
FASI → CAP	LR	15.25	22.09	10.83	66.67	66.67
MPA → FASI	LR	57.18	104.93	-1.97	100.00	100.00
MTA → FASI	LR	199.77	442.68	83.86	100.00	100.00
MNOM → FASI	LR	12.49	108.03	-84.17	100.00	100.00
MSS → FASI	LR	-6.73	118.63	-190.32	100.00	100.00
MCDI → FASI	LR	-161.07	-4.59	-289.07	100.00	100.00
MTOT → FASI	LR	53.47	133.70	1.62	100.00	100.00
MBW → FASI	LR	-0.62	82.68	-205.32	66.67	66.67

Notes: As per Table 6.1.

Table 6.16: Attitudes, factor flows and outcomes – min-max difference or migrant/investment shock

		AVG	MAX	MIN	% LR/SR	% COMB
MASIO → FDI	LR	52.95	620.88	-308.67	93.88	93.88
MATGTF0 → FDI	LR	105.44	806.86	-124.18	86.05	90.70
MASIO → FBW	LR	0.45	0.97	0.02	91.67	100.00
MATGTF0 → FBW	LR	2.89	9.76	0.41	100.00	100.00
MASIO → UNE	LR	-77.17	-7.99	-103.71	100.00	100.00
MATGTF0 → UNE	LR	-96.67	-7.76	-172.29	83.33	83.33
MASIO → WGE	LR	1.59	9.04	-3.46	50.00	83.33
MATGTF0 → WGE	LR	-4.47	1.91	-19.55	66.67	100.00
MASIO → RGDPPC	LR	3.77	30.89	-25.46	83.33	83.33
MATGTF0 → RGDPPC	LR	4.74	18.12	-3.59	66.67	66.67
MASIO → CAP	LR	-29.00	-7.58	-51.39	83.33	83.33
MATGTF0 → CAP	LR	-48.00	31.84	-89.49	66.67	100.00
FDI → MASIO	LR	6.22	16.99	0.48	12.24	14.29
FDI → MATGTF0	LR	4.32	17.94	-3.04	41.86	48.84
FBW → MASIO	LR	0.38	3.28	-3.33	83.33	83.33
FBW → MATGTF0	LR	4.01	9.54	-1.73	83.33	83.33
FASI → MPA	LR	-27.05	-27.05	-27.05	11.11	22.22
FASI → MTA	LR	31.09	136.18	-43.65	77.78	77.78
FASI → MNOM	SR	6.16	6.16	6.16	14.29	11.11
FASI → MSS	LR	-0.05	6.70	-9.20	44.44	44.44
FASI → MCDI	LR	-102.95	-102.95	-102.95	11.11	11.11
FASI → MTOT	SR	-5.03	1.04	-11.09	22.22	22.22
FASI → MBW	LR	2.09	3.38	0.80	16.67	16.67
FASI → UNE	SR	9.54	10.67	7.80	50.00	50.00
FASI → WGE	LR	-1.79	-1.79	-1.79	16.67	16.67
FASI → RGDPPC	LR	2.52	20.90	-7.38	83.33	83.33
FASI → CAP	LR	30.31	43.92	21.52	66.67	66.67
MPA → FASI	LR	156.71	287.60	-5.40	100.00	100.00
MTA → FASI	LR	112.72	249.79	47.32	100.00	100.00
MNOM → FASI	LR	18.53	160.26	-124.88	100.00	100.00
MSS → FASI	LR	-0.62	10.89	-17.47	100.00	100.00
MCDI → FASI	LR	-21.77	-0.62	-39.06	100.00	100.00
MTOT → FASI	LR	29.20	73.01	0.89	100.00	100.00
MBW → FASI	LR	-0.08	10.93	-27.13	66.67	66.67

Notes: As per Table 6.1.

Overall the evidence surrounding attitudes lends modest additional support to the central analysis, suggesting an environment in which migrants are well received and integrated is advantageous to FDI attraction and the wider economy. While it does not address the role of migration policies in achieving positive attitudes towards migration, it could be that stricter migrant selection connects positive attitudes towards migrants with more FDI (noting earlier findings that intake upskilling attracted more FDI). Meanwhile higher migration attracts scrutiny for FDI consistent with earlier claims surrounding anti-foreigner perceptions.

Conclusion

This chapter deploys purpose-built quantitative indicators for migration and FDI policies to investigate the relationships between flows, policies and economic outcomes in Australia in greater detail. The analysis adds an exploration of the influence of iterative and categorised policy changes to the evidence of previous chapters, which established global patterns and case study specific associations between migration and FDI flows in the absence of such variables.

FDI policy tightening is found to reduce long-term migration (particularly temporary migrants), with land policies having especially large effects. Overall migration policy

tightening increases FDI, further suggesting migration policy biases against new investor attraction. There is only limited evidence that migration and FDI policies either liberalise or tighten at the same time, which in the absence of documented evidence of joint policy formulation and differing objectives for migration and FDI suggests some policy misalignment. Permanent arrivals (and FDI) are associated with superior economic outcomes, building on the Chapter 5 finding of a trade-off between increased FDI but lesser economic benefits from temporary migration. FDI policies appear to little influence migration's impact on Australia's economy, whereas tightening migration policies enhances FDI's benefits. Migration policy tightening also improves unemployment but at the expense of wages, GDP per capita and capital accumulation, while FDI policy tightening has detrimental labour market and GDP per capita impacts.

The findings further suggest that factor flow complementarity has both featured in and delivered benefits to Australia's post-war economic development. However, divergence in policy formulation is evident and likely to have reduced Australia's FDI competitiveness. Australia's experience offers lessons for countries considering development approaches involving international integration, suggesting opportunities to enhance policymaking harnessing complementarity and economic development.

Chapter 7

The relationships between migration and FDI policies and investment flows in Malaysia

Synopsis: This chapter applies the case study approach of Chapter 6 to Malaysia, offering a granular assessment of policy influence on factor flows and economic outcomes. The differing historical, geographical, cultural and policy contexts for Australia and Malaysia support testing of the transferability of findings across both cases, while also enabling additional analysis of unique dimensions including documented versus undocumented migration, net FDI and new investors, border control difficulties, unskilled migration policies and investment incentives. A consistent (where overlapping) analytical and empirical approach to that for Australia supports between-country comparisons. The positive relationship between factor flows appears stronger from FDI to migration in Malaysia. FDI policy tightening is associated with reduced migration and migration policy tightening with increased FDI consistent with the Australian findings, with both effects larger for Malaysia. The results for border control, legal entry and integration policies suggest that perceptions of stability and governance are relatively important in Malaysia. Migrant legal entry and FDI incentive policies appear to have moved (tightened and liberalised) together, but other policies have not. Migration policy tightening is associated with increased GDP per capita, which may reflect the low skill structure of Malaysia's migrants and limited incentives to migrate formally. Overall, the findings identify overarching migration and FDI policy influence as operating in a similar way in dissimilar contexts, while also highlighting how informality and incentives shape factor flow relationships and policies.

Introduction

This chapter extends the analysis of Chapter 6 to the Malaysian context, offering a comparative assessment of the influence of iterative policy changes on factor flows and economic outcomes. Malaysia — like Australia — has received large inflows of both migrants and FDI but has done so with vastly different policy approaches and with a contrasting historical, geographical and cultural context shaping factor flows. Malaysia's troubled colonisation experience saw it turn inwards in the three decades following independence; whereas Australia has more actively and consistently sought both migrants and investment. Malaysia began with very significant foreign control of some industries and a highly segregated multi-ethnic population that created anxieties inclining authorities towards nationalistic policies until the mid-to-late 1980s. Contrastingly, post-WWII Australia lacked both population diversity and investment capital, providing an overarching security and development imperative to look abroad for both. Whereas Australia seeks permanent settlers (the primary focus until the mid-1990s) from increasingly diverse source countries, Malaysia's migrants are almost exclusively temporary workers with few rights, are abundant for both documented and undocumented status, and come from a shortlist of bilaterally approved countries. Significant FDI policy liberalisation has been a feature in both countries, albeit to differing degrees on different timeframes. Regulation (investment screening) became central to Australia's approach and was deemphasised in Malaysia, while Malaysia focused on investment incentives (tax breaks and project facilitation) that Australia has long avoided.

Foreign worker policies are explicitly linked to maintaining FDI competitiveness in contemporary Malaysia but are not in Australia.

Such differences motivate comparing how factor flows and policies operate in Australia and Malaysia, while also permitting exploration of additional nuances specific to Malaysia's experience. Understanding similarities and differences across contexts adds to this thesis' emerging depiction of the interrelationships between flows, policies and economic development and its wider applicability.

To support comparison, a VEC modelling approach consistent with that in Chapter 6 is adopted with equivalent variables where possible. Malaysia-specific variables deployed empirically here, and familiar from Chapter 4, include documented and undocumented migrants, gross and net FDI and foreign company registrations and complexity measures (ECI and PCI). To this border control and unskilled migration policies, and other FDI policies and FDI incentives are added to explore policies of greater Malaysia relevance.

The chapter examines whether the relationship between migration and FDI remains positive when controlling for policy influence and whether it works primarily from FDI to migration or vice versa. It explores the influences of informality on both factor flow relationships (with specifications specific to undocumented migrants) and policy formulation and effect (particularly border control and legal entry policies). It also compares the influence of investment incentives with other (regulatory) FDI policy approaches. And it replicates the analytical dimensions of Chapter 6 — how migration (FDI) policy subcategories differentially influence FDI (migration) flows and consequent economic outcomes and evidence of coordinated migration and FDI policy movement. The findings are presented in both comparison to Australia and in their own right.

The next section describes Malaysia's migration and FDI policy histories. The Malaysian policy indicators and dataset are then outlined, followed by a discussion of the main results. The chapter concludes with summary observations.

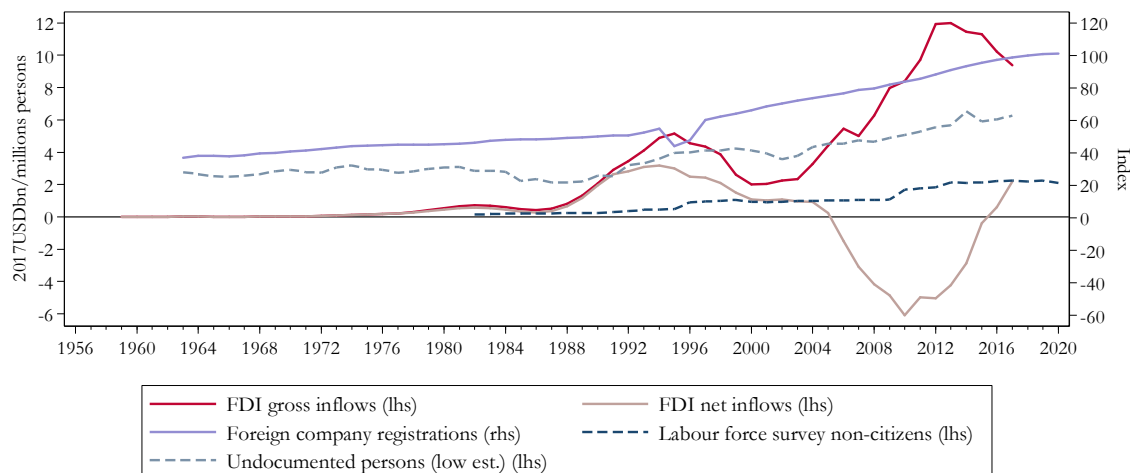
Background

This chapter builds on preceding chapters and the conceptual approach to understanding factor flow relationships, policies and development linkages, empirical strategies for testing these relationships, and a specific approach to assessing iterative policy influence in the Australian context. This section provides details of Malaysia's factor flow and policy history to contextualise the subsequent empirical analysis.

Malaysia's historical factor flows

Migration and investment inflows feature significantly in Malaysia's short history, most prominently during its rapid development since the mid-1980s (Figure 7.1). FDI inflows were limited in the immediate post-independence (1957) period, because of competing objectives to reduce the foreign share of the economy while there was encouragement of the development of new industries. There were few formal migrants and no guest labourers in this period, but a significant population of non-Malaysians (mostly Indonesians) moved and lived freely within Malaysia (Kaur 2004; Kassim 2014; Nixon 2024).

Figure 7.1: Various migration and FDI measures, 1957-2020



Sources: BNM, MITI, DOSM various years; Nunnenkamp 1989; UNCTAD 2021; Nixon 2022. Note the FDI flows measures are rolling five-year averages.

Following ill-fated attempts at import substitution in the early 1980s, Malaysia sought foreign capital to kick-start its faltering development. FDI inflows surged from the late 1980s until the eve of the Asian Financial Crisis (AFC), which provided a setback to inflows lasting several years. Major policy liberalisation followed in 1998 before further reforms in 2003 launched Malaysia's renaissance in the eyes of international investors. Record FDI inflows were achieved but exceeded by Malaysian firms' advance outwards, with net FDI inflows negative for much of the upsurge. Recent years have seen a return to net inflows despite the dip in gross inflows.

Migrant numbers grew tremendously in parallel and like FDI did not follow a linear pattern. Both documented and undocumented migrant flows display some cyclicalities around economic and political fluctuations, within a much narrower range than FDI. Documented foreign workers first substantively emerged in 1991 with the introduction of legal guest labour channels, and despite ebbs and flows have climbed to a stock of over 2 million. Undocumented migrant numbers fell until the late 1980s amid ethnic tensions and poor economic growth. They then grew rapidly as Malaysia's growth exceeded that of its neighbours and as formal migration channels increased opportunities to enter and overstay. Growth in undocumented migrant numbers slowed and declined slightly following the AFC before surging again amid the 21st century economic rebound. The latest (low) estimate of the stock calculated from consumption patterns was over 6 million undocumented migrants in 2017 (details in Appendix A).

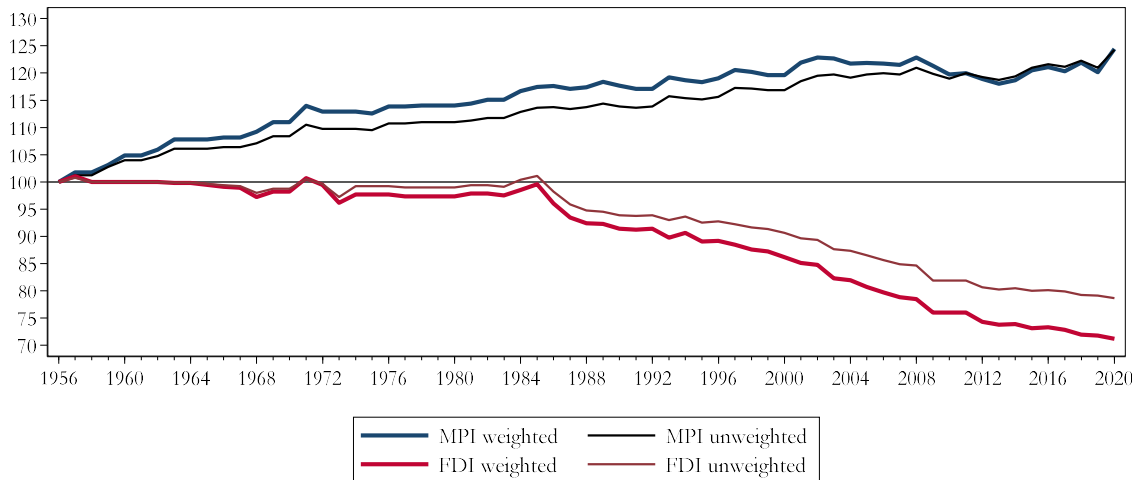
Malaysia's migration and FDI policy history

Malaysia's migration and FDI policies have diverged significantly for most of the post-independence (post 1957) period. Migration policies have substantially tightened whereas FDI policies have liberalised considerably in a near uninterrupted pattern since the mid-1980s. This section depicts and explores these trends using equivalent quantitative policy indicators to those developed for Australia (described in Chapters 5 and 6).

Whereas Australia's migration policies followed a U-shaped pattern over time, Malaysia's have tightened at a decreasing rate (Figure 7.2). And while Australia's FDI policies first

tightened then liberalised before tightening again recently, Malaysia's overall restrictiveness deviated little for three decades before undertaking major stepwise liberalisation since. The divergence between the weighted and unweighted FDI indexes reflects the relatively large liberalisation of equity/ownership policies.

Figure 7.2: Diverging migration and FDI policies, 1956-2020



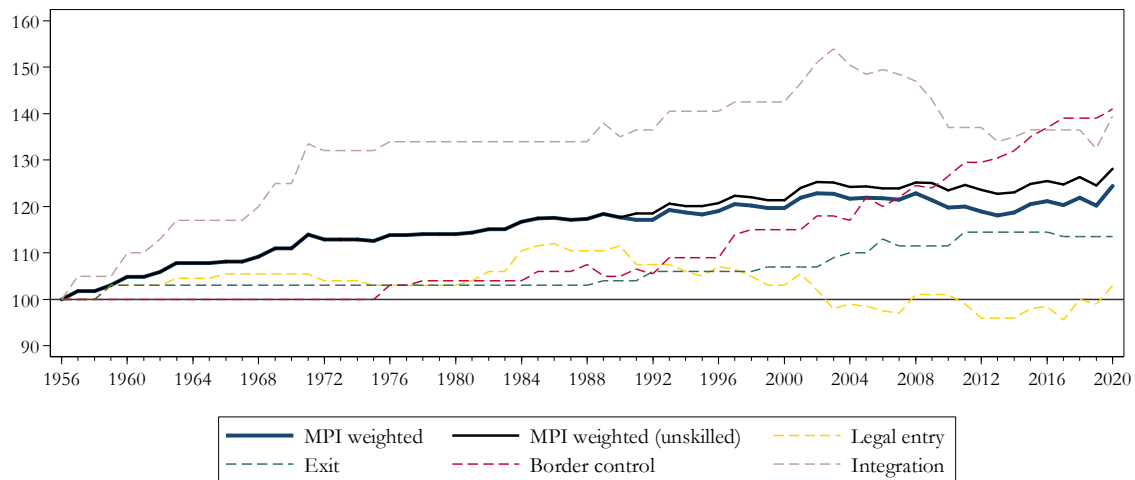
Source: Author. Note higher values equal greater policy stringency.

Migration policies

Malaysia's migration policies tightened significantly from fairly open settings under colonial rule, with first integration (post-entry treatment) then border control changes driving this pattern (Figure 7.3). Tightening of border and integration policies arguably reflects legacies from colonisation. Substantial integration tightening arose from the contest for Malaysian identity that has dominated political and policy debate since independence, with racial and religious framing contributing to discriminatory policies against both Malaysians and migrants. The most prominent example is longstanding *bumiputera* affirmative action policies that mandate ethnic-Malay shareholdings in corporations and provide Malays with favourable access to higher education and housing (among other things) (H.-A. Lee 2021). Migrants have consequently experienced overt discrimination, rights limitations, and employment-related ill-treatment. The need for border control tightening arose from the colonial imposition of geographical boundaries where none had previously existed, and later, from Malaysia's economic outperformance of its neighbours. Only when post-colonial relations with Indonesia soured were serious borders erected to divide previously integrated communities. Efforts to combat unauthorised entry have increased considerably, though their effectiveness is debatable.

Significant shortcomings in the implementation of policy suggest the overall migration policy indicator is more reflective of Malaysia's policy intentions than its influence. Malaysia also provides a good example of the interactions between migrant categories and their influence on migrant formalisation, as limited entry and integration rights confound regulatory efforts to control borders.

Figure 7.3: Migration policy changes by sub-indicator, 1956-2020



Source: Author. See Figure 6.1 for definitions.

Among the specific categories, legal entry has followed a divergent and volatile trajectory. Policy tightening in the early 1980s reflects efforts to control undocumented migration after Viet Nam war refugees brought the issue to prominence (Kassim 1987; Kassim et al. 2014; Kaur 2014). The failure of control efforts saw authorities concede that foreign workers were necessary and regulation was the lesser of two evils, with a minimally generous foreign worker system introduced in 1991 (World Bank 1995; C. B. N. Chin 2002; Del Carpio et al. 2013). Recurring tensions have played out in the three decades since, mixing expansions in the sectors allowed to hire foreign workers and permitted migrant source countries, foreign worker levies, periodic hiring freezes, and fluctuations in visa conditions. The legal entry policy environment has been unstable throughout, which alongside offering few benefits (rights) from formalisation provided minimal incentive for both migrants and employers to engage (Kaur 2008; Devadason and Chan 2014). Skilled worker policies have liberalised somewhat in recent decades, though entry and stay rights for even these preferred migrants remain limited by international standards (Kanapathy 2004; Badawi 2007; Kok 2009; Nah 2012; Razak 2017; Talent Corp 2023).

Integration policies have been at the forefront of policymaking throughout with significant implications for migrants. They account for most of the overall migration policy tightening up to and including the 1969 race riots (Figure 7.3), including creating male-biased family reunification and naturalisation rules, unwinding unconditional *jus soli* and dual citizenship, issuing ethnically discriminatory registration cards and culminating in the New Economic Policy's *bumiputera* privileges and a National Culture Policy with Malay and Islamic cultural centrality (Milne 1976; Ongkili 1985; Kaur 2008; Bashford 2014; L. C. Chin 2016; 2017; H. A. Lee 2017). Permanent residence and citizenship were made very difficult to obtain, including for some pre-independence migrants and Indonesians (with preferential policies unwound in 1988) (Nah 2012; L. C. Chin 2017). The foreign worker system introduced in 1991 brought equal employment laws but with several substantial exceptions that tightened policies overall, including prior advertising for locals and excluding migrants from receiving pension contributions (C. B. N. Chin 2002; Devadason and Chan 2014; Kaur 2015). The incidence of new levies also fell on foreign workers. Two years later, foreign workers were excluded from Malaysia's social security scheme for workplace injury (Mohamad Amin, Abdul Aziz, and Ab

Hamid 2017). Around this time however, policies for expatriates began to ease amid efforts to attract skilled persons and an inclusive, multi-racial, religious and cultural identity gained traction (Bank Negara Malaysia (BNM), n.d.).

The late 1990s and early 2000s saw further measures that brought integration policy stringency to its historical peak, amid economic weakness post-AFC and diplomatic tensions with Indonesia. Measures included a legal requirement for employers to fire foreigners first, the 'Hire Indonesians Last' policy, documentary impediments to enrolling migrant children in schools, migrant-only hospital fees and rhetorical moves towards an Islamic State (Liow 2002; Sayed Mahadi 2014; Allerton 2018; Loganathan et al. 2019). With an improving context and new prime minister, policies subsequently began to ease (from 2004) amid efforts to uplift Malaysia's international image (including to attract investors), with further easing for expatriates and greater integration support and attempts to reduce foreign worker exploitation (Nah 2012; Devadason and Chan 2014; International Labour Organization 2016; Yasmin 2019). Two major changes in 2010 saw maternal *jus sanguinis* rights improved (children born overseas to Malaysian mothers could apply for citizenship, paternal citizenship remained automatic) and improved residency rights for foreign husbands of Malaysian women (still not equal with foreign wives) (L. C. Chin 2017). Mostly minor changes have occurred since then in areas such as employer liability, accident insurance and minimum wages, before discriminatory pandemic policies shone a spotlight on foreign worker vulnerability.

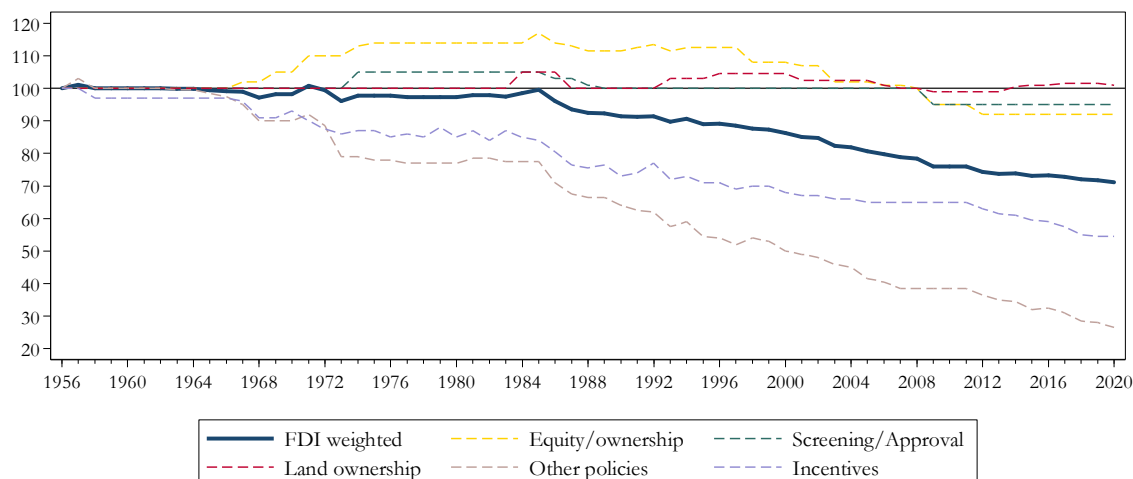
Mirroring the Australian experience, border control and exit policies featured little in the early period, with the Banishment Act (1959) creating expulsion powers the only measure prior to 1976 (Bashford 2014). Rising popular and parliamentary opposition to illegal migrants prompted some enforcement activities in the mid-1970s, but the first substantial operations to regularise migrants and target illegal entry and stay came in 1985 — with RELA (civil volunteer corps) first entering the fold (Kassim 1987; Kassim et al. 2014; Kaur 2015). The following decade saw short-lived cycles of policy tightening and easing with several rounds of voluntary regularisation, assisted departure and crackdowns (raids, arrests, deportations) (Abdul Aziz et al. 1999; Pillai 1999; C. B. N. Chin 2002; Kanapathy 2004). The tightening upswing began in the mid-1990s, including through legislative reforms in 1997 and 2002 that targeted those harbouring or supporting illegal migrants with severe criminal penalties including caning (Abdul Aziz et al. 1999; Kanapathy 2004; Kassim 2017). The regularisation and crackdown cycle continued, with increased enforcement as RELA was given powers to arrest migrants in 2005 (leading to widespread reports of abuse and extortion) and immigration courts were established at detention centres in 2006 to expedite group deportations (Kassim and Mat Zin 2011; International Labour Organization 2016). Several further major operations have continued the tightening trend and sought to control illegal migration with little success, most notably various iterations of *Operasi Bersepadu* (integrated operations, including 6P Bersepadu) and Ops Mega (Kaur 2015; Kassim 2017; Low 2017; Theng Theng and Ramadan 2020).

FDI policies

FDI policies changed relatively little for three decades as Malaysia mostly tinkered with the liberal approach inherited at independence (Figure 7.4). Stability in the overall FDI policy indicator partly reflects counteracting subcategory shifts. The first subcategory split came with the introduction of investment incentives in 1968 followed by mandatory *bumiputera*

(favouring ethnic Malays) equity participation (30 percent) rules in 1969 that limited foreign ownership. Equity restrictions would continue to tighten (from a low base) and prior approval was introduced to enforce the *bumiputera* quota. Alongside this, investment incentives to encourage pioneer industries were made more generous. After a brief period of tightening in the early 1980s accompanying failed import-substitution industrialisation, Malaysia significantly boosted investment incentives and chipped away at equity restrictions — providing exceptions for exporters, free trade zones and identifying priority sectors for investment.

Figure 7.4: FDI policy changes by sub-indicator, 1956-2020



Source: Author. See Figure 6.2 for definitions.

Since 1986 there has been largely uninterrupted liberalisation with increasingly generous incentives, some privatisation and a more flexible exchange rate regime. Major equity liberalisation packages came in 1998, 2003, 2009 and 2012 — broadening 100 percent foreign ownership beyond the export sector, to incorporate more services sectors and to reverse stringent banking sector controls. The screening regime was officially discontinued in 2009, though Malaysia's investment authority (MIDA) retains a *de facto* approval process for both foreign and domestic investors seeking incentives. Land ownership has remained largely open to foreigners with price floors introduced in response to property price inflation. Incentives and facilitation efforts have broadened significantly over the years though declining transparency has made quantifying changes harder.

In respect of equity/ownership restrictions, there were minimal restrictions prior to the introduction of *bumiputera* equity minimums from 1969 to 1971, which provides the first increase in the indicator (Milne 1976; Mehmet 1977; Menon 2008; Abdul Kohar, McMurray, and Peszynski 2017). New banking licences for foreign banks were informally banned from 1974 amid heightened efforts to develop local industry (Sufian, Kamarudin, and Nassir 2016). The final substantive uptick in 1985 required new public share issuances to have 51 percent *bumiputera* ownership (Bank Negara Malaysia (BNM), n.d.). The gradual relaxation of equity restrictions began in 1986, with full foreign ownership in manufacturing allowed if export, employment or location (in free trade zones) requirements were met. Minimum export or equity sell down requirements were no longer necessary for 100 percent ownership in new projects after 1998, while majority ownership was permitted in the wholesale and retail sectors. In 2003, full and unconditional ownership of manufacturing businesses was made

permanent and the first foreign banking and insurance licences in 30 years were issued (Chai and Im 2009; OECD 2013). A substantial liberalisation of equity restrictions followed the GFC in 2009, with services (including financial) the major beneficiary. Finally in 2012, the *bumiputera* minimum was removed for a range of additional services sectors (OECD 2013; Ong and Ong 2017).

Screening of foreign investment has not featured prominently in Malaysia. There was no prior approval mechanism until 1974, when a Foreign Investment Committee (FIC) and guidelines were introduced to regulate FDI consistent with *bumiputera* policies (Bank Negara Malaysia (BNM), n.d.). The reforms of the late 1980s saw small transactions exempted from screening and MIDA given responsibility for streamlining processes (G. Leong 1990). In 2009, the FIC process was discontinued, with residual approvals left to sector regulation (or MIDA if incentives are sought) (OECD 2013). The comparatively flat screening/approval indicator reflects the absence of major screening policy shifts historically.

Akin to screening, the land policy indicator has only experienced modest movements. Land ownership was also largely non-discriminatory from independence through to 1984, when the National Land Code was amended to prohibit foreigners from buying agricultural land and require state government approval to buy residential land (industrial land remained unrestricted) (Mehmet 1977; Buang 2017). These restrictions were reversed in 1987, only to be reintroduced again in 1993 but with agricultural and residential land both permitted under FIC and state approval. A foreigner-specific levy on property purchases was introduced in 1996 during an episode of price inflation (Mohamad 2007). FIC approval for residential property purchases was then mostly liberalised in stages between 2001 and 2009. Since 2014, minimum purchase prices that differ across states have applied to residential property (Buang 2017; Mok 2017; iMoney 2019).

Other policies, including incentives, have been prominent and the most utilised throughout — making the largest contribution to the falling overall FDI indicator. The first incentive measure was the Pioneer Industries Ordinance (1958), which established tariff protection, tariff holidays and import duty exemptions for foreign investors that created new industries (Bank Negara Malaysia (BNM), n.d.; OECD 2013; Abdul Kohar, McMurray, and Peszynski 2017). Malaysia signed several bilateral and multilateral investment agreements/conventions in the early 1960s and established MIDA in 1965 (Ministry of International Trade and Industry 2023). The Investment Incentives Act 1968 provided major reform, offering heightened tax relief, duty concessions, reinvestment and depreciation allowances for export-oriented industries (Menon 2008). The New Economic Policy then pivoted towards tightening with nationalisations of foreign mining and plantation businesses to boost *bumiputera* ownership and foreign banks prohibited from opening new branches (OECD 2013). But otherwise the liberalisation measures continued, with particular emphasis on advancing free trade zones (Warr 1987; UNCTAD 2003; Chai and Im 2009). The ringgit was floated against the US dollar in 1973, with accompanying relaxation of exchange control permissions (Bank Negara Malaysia (BNM), n.d.; Menon 2008). After a famed market-based move to nationalise Guthrie Corporation in 1981, the tide shifted modestly towards privatisation from 1983 (Nambiar 2009; Yacob 2020). The Promotion of Investment Act 1986 marked the third major incentives reform, increasing or extending the suite of incentives and company eligibility while also providing expatriate hiring concessions for manufacturing investors (Chai and Im 2009; OECD 2013). Malaysia also began to lower its corporate tax rate from 1988 and sought to

become an international financial centre and an outwards investor (with incentives from 1990) (Bank Negara Malaysia (BNM), n.d.). The early- to mid-1990s brought further incentives tinkering, both liberalising and tightening, and policymakers began to question their generosity. The creation of the Multimedia Super Corridor in 1997 saw incentives rejigged to favour high-tech industries (Ministry of Finance Malaysia, n.d.). The AFC then brought an end to the ringgit float, the introduction of capital controls and slowing privatisation momentum (OECD 2013). Liberalisation otherwise rebounded thereafter with moves to provide tailored incentives packages and a gradual relaxation of capital controls leading to the managed currency float in 2005. Incentives would subsequently benefit from a series of minor increases through to the present, focusing on areas like tourism, healthcare, digital economy, and Islamic finance (Bank Negara Malaysia (BNM), n.d.; Razak 2009; 2013; 2014; 2015; 2016; 2017; Cheok 2020).

Data and methodology

The purpose of this chapter is to empirically analyse the influence of migration and FDI policy changes on factor flows and economic outcomes in post-independence Malaysia, comparing these with the findings for Australia and offering insights for policies of importance to Malaysia. The methodological approach replicates that established in Chapter 6, using an equivalent set of quantitative policy indicators developed for Malaysia. Baseline policy indicators replicate those for Australia in codifying the ‘on paper’ or formally stated policy environment by subcategory (e.g. entry/stay, border control etc.). Additional metrics are developed specifically for Malaysia: an additional aggregate migration policy indicator isolating policies specific to lesser skilled foreign workers (excluding policies directed at expatriates) and an FDI ‘incentives’ subcategory separated from the broader ‘other policies’ subcategory.

In the absence of similarly extensive public attitudes measures or searchable Parliamentary records, an alternative approach was taken to create an ‘in practice’ indicator. The opposition pressure indicator here exploits Malaysia having had a single continuous government from independence to 2018 and a leading opposition voice in Lim Kit Siang (LKS), who held various opposition leadership and parliamentary roles from the late 1960s. Usefully for the purposes of historical policy analysis, a significant collection of LKS’ press releases and parliamentary speeches dating back to 1968 has been digitised and is freely accessible (Lim 1996; 2021). About 13,200 records were codified as relevant (or not) to one or more of the baseline indicator categories, by restrictiveness (either advocating more or less restrictive policies) and with values expressed as a fraction of total records for that year. Two years for which records are unavailable reflect fitted values based on adjacent year averages and historically comparable periods.

The policy indicator measures feed into a time series dataset supplemented by secondary data, capturing the period 1957-2018 and including a large number of migration, FDI and economic variables. Two familiar migration measures are used: the official labour force survey non-citizen workforce (MLFS; DOSM, 2020) and the empirically estimated undocumented migrant population derived from per capita consumption and development data patterns (Appendix and Nixon 2022). Only the low range (MUNL) estimate is deployed for expediency, with unreported robustness checks using the larger estimates producing similar results. Three FDI measures are also used. Gross and net inflows of FDI (FDIG and FDIN respectively — in constant 2017 US dollars and reflecting five-year averages for consistency

with the Australian analysis) to capture investment volumes (Nunnenkamp 1989; UNCTAD 2020), while foreign company registrations (FCR) are included to explore how policy differentially affects companies and investment amount (Department of Statistics Malaysia, various years).

Familiar economic variables include real GDP per capita (calculated using the official (RGPPCO) and unofficial (RGDPPCU) population estimates) and capital stock (at constant 2017 values; Maddison 2010; Feenstra et al. 2015; World Bank 2021), the unemployment rate (for persons aged 15-64 years; Department of Statistics Malaysia (DOSM) 2020) human capital index (Feenstra et al. 2015), an educational attainment metric (reflecting the highest educational attainment of the population over 25; Barro & Lee, 2013), liberal democracy institutions index (Coppedge et al. 2021; Pemstein et al. 2021), trade as a percentage of GDP (World Bank 2021) and two industrial upgrading measures (ECI and PCI) from Chapter 4.

The empirical methodology (VEC modelling) replicates that of Chapters 5 and 6 to support comparisons. The results thus reflect Granger causality rather than strict causation (or 'predictive causality'; Diebold 2017), with a large (but not exhaustive) number of variable combinations tested and summary results presented. Estimates are based on the full sample period (no sub-sample splits are undertaken) subject to data availability.

Expectations

Chapter 6 established expectations around policy's influence on factor flow relationships, with this section adding Malaysia-specific hypotheses. Mostly, Malaysia is expected to follow a similar pattern to Australia across equivalent relationships.

Regarding FDI policy's influence on migration flows, Malaysia's more integrated and stricter policy approach suggests an effect of greater magnitude than for Australia. That is, where Australia separately formulates expatriate migration policies and has non-prescriptive criteria around transfers, Malaysia's FDI framework explicitly restricts expatriate hiring but offers some relaxation as an investment incentive.

Migration policy tightening appears to have increased FDI into Australia, so could this finding be replicated for Malaysia? Whereas Chapter 6 argued that Australia's migration system may have favoured incumbent firms, the prevalence of undocumented migrants alongside formal migration settings that seemingly benefit neither domestic nor foreign stakeholders complicate this judgment for Malaysia. A further consideration is that border controls are more meaningful for Malaysia, both as governance signals and in creating potential (temporary) disruptions to migrant supply. If for example, internal enforcement activities targeted domestic firms more so than foreign investors, then migration tightening might advantage FDI. On the other hand, foreign worker policies have been explicitly linked to investment competitiveness, so authorities appear to believe the liberalisation of legal entry policy supports FDI.

Public statements surrounding foreign workers and investment competitiveness also suggest there could be greater evidence of policy coordination. Should there be a positive relationship between policy indicators, it would evidence their joint development more than their support for concurrent factor flows. The large gap between the stated aims and outcomes of migration policies is noteworthy in this regard.

Results and discussion

Following the approach in Chapter 6, the tables below provide summarised results in standard deviation and per unit shock terms, highlighting the preferred specification(s), the average, maximum and minimum impulse response across all specifications and the percentage of all specifications producing a statistically significant Granger-causal relationship. The discussion is likewise organised into sections by relationship type.

Migration and FDI flows

The overall pattern in Tables 7.1 and 7.2 indicates a positive relationship between factor flows during Malaysia's modern history — reinforcing the results of Chapter 4 with the addition of policy control variables. Long-term positive and bidirectional relationships are evident for gross FDI inflows, though contrary to the thrust of some prior research appear stronger from FDI to migration. An extra US\$1 billion in investment is associated with an 8.65 percent increase in the official non-citizen population (MLFS or documented migrants) after 15 years, whereas an additional 100,000 migrants is associated with a 0.35 percent increase in cumulative gross FDI inflows. The effect of gross FDI on documented migrants is positive but lower magnitude (1.5-2 percent) in the more complete (preferred) specifications. The reverse relationship is less consistent and turns negative when the effects of policies, education and institutions are taken into account. Increased gross FDI is similarly associated with more undocumented migrants (MUNL; 6.7 percent over 15 years), with the result relatively unchanged by including policy variables. Likewise, evidence that undocumented migrants increase gross FDI is more stable across specifications and slightly larger (at 0.53 percent).

The results for net FDI differ significantly. Increased net FDI appears associated with more undocumented migrants but fewer documented migrants over the long-term, though the most complete documented migrant specifications are both positive. The evidence that migration influences net FDI is very weak, which alongside the gross FDI results suggests migration has some countervailing effect on outwards investment.

An extra 100,000 migrants is associated with a steep increase in long-term foreign company registrations (FCR), by 18.6 percent for documented and 12.9 percent for undocumented migrants. The effect for documented migrants is significantly larger when controlling for policies, unemployment and capital deepening, whereas the relationship is statistically insignificant for the comparable undocumented migrant specification. The reverse direction results parallel those for net FDI, with more foreign companies seemingly increasing undocumented migration.

Table 7.1: Migration and FDI relationships – per standard deviation shock

		MBW	FBW	MBW/FBW	MBW2	MBW2/FBW	MBW/FBW/UNE/CAP	MBW/FBW/EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MLFS → FDIG	LR	10.01	4.97	33.05	-2.92	-1.38		-18.22	2.52	75.93	-106.92	81.63	87.76
	SR							-37.84	-19.34	1.90	-37.84	21	
FDIG → MLFS	LR	47.29	4.06	42.71	34.04	-4.84	6.99	5.73	31.46	78.81	-4.84	97.96	97.96
	SR			10.33					15.92	22.81	10.33	12.50	
MUNL → FDIG	LR	41.27	11.76	43.45	61.20	40.30	11.17		6.19	61.20	-108.69	72.55	78.43
	SR								-6.55	12.62	-33.74	19.35	
FDIG → MUNL	LR	32.44	32.55	29.48	31.00	29.04	25.85		24.38	45.54	1.85	72.55	82.35
	SR								7.97	13.01	4.57	25.81	
MLFS → FDIN	LR				9.16		64.52		36.00	64.52	4.70	14.29	32.65
	SR								10.52	27.96	1.49	29.73	
FDIN → MLFS	LR	-5.97	31.98	-30.65		-15.95	8.08	4.87	-5.04	37.50	-51.30	89.80	91.84
	SR			-9.30					0.50	19.65	-12.96	13.51	
MUNL → FDIN	LR	-24.49		-15.33					-6.24	16.11	-24.49	11.76	11.76
	SR								N/R	N/R	N/R	0.00	
FDIN → MUNL	LR	-4.70	24.61	-4.73	-3.44	0.40	8.41	-0.01	2.59	24.61	-18.09	100.00	100.00
	SR								2.86	6.45	-0.70	9.68	
MLFS → FCR	LR	64.90	7.76		51.20	4.09	28.03	1.82	18.59	74.02	0.03	79.59	83.67
	SR			2.08				2.68	5.24	10.38	0.04	34.29	
FCR → MLFS	LR	2.57	-23.86	-79.52	-44.36	-23.82	6.55	-28.67	-26.72	14.92	-108.98	83.67	85.71
	SR			-31.43		-22.82			-19.57	-4.19	-39.87	34.29	
MUNL → FCR	LR	37.10	3.19		0.28	0.38		0.61	12.85	55.03	-2.21	88.24	92.16
	SR				-0.31	0.01		-0.43	1.56	5.70	-5.84	57.58	
FCR → MUNL	LR	62.05	26.28	-12.54	7.19	0.75		1.83	14.90	62.98	-16.44	92.16	92.16
	SR								2.38	7.80	-4.32	9.09	

Notes: The numbers in the first seven columns reflect the cumulative impulse response of a one standard deviation shock — in percentage terms after 15 years (LR) and five years (SR). The top row for these columns indicates the model controls (e.g. MBW — listed below). The darker green represents a statistically significant positive relationship at the 5% level; light green otherwise positive at the 10% level; darker red a negative relationship at the 5% level and pink at the 10% level. The subsequent three columns present the average, maximum and minimum response for all specifications (not just those highlighted in the table). The final two columns indicate the percentage of specifications for which the relationship is statistically significant (at the 10% level or better) in the long (15 years) and short run (five years) and combined for each of the specifications. Black squares indicate a single lag model (SR only) or a model outside of the analysis. For example, a standard deviation increase in documented migrants (MLFS) increases FDIG by a cumulative 2.52% over 15 years according to the average across all specifications. The table does not present all but a relevant sample of the full set of specifications. For example, there are 49 specifications underpinning the MLFS and FDIG relationship results.

Legend: MLFS (documented migrants); MUNL (undocumented migrants); FDIG/FDIN (gross/net FDI inflows); FCR (foreign company registrations); MBW (overall weighted migration policy indicator); MBW2 (unskilled weighted migration policy indicator); FBW (overall weighted FDI policy indicator); MLE

(migration legal entry indicator); MIG (migration integration indicator); FPE (FDI equity restrictions indicator); FPN (FDI other restrictions indicator); FPI (FDI incentives indicator); UNE (unemployment rate); CAP (capital stock); EDU (educational attainment); LIB (institutions liberal democracy index); RGDPPCO/U (real GDP per capita – official/unofficial population); ECI (economic complexity index); PCI (product complexity index); TRADE (trade %GDP).

Table 7.2: Migration and FDI relationships – per migrant/investment shock

		MBW	FBW	MBW/FBW	MBW2	MBW2/FBW	MBW/FBW/UNE/CAP	MBW/FBW/EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MLFS → FDIG	LR	1.38	0.68	4.55	-0.40	-0.19		-2.51	0.35	10.44	-14.71	81.63	87.76
	SR							-5.21	-2.66	0.26	-5.21	21	
FDIG → MLFS	LR	13.00	1.12	11.74	9.36	-1.33	1.92	1.58	8.65	21.66	-1.33	97.96	97.96
	SR			2.84					4.38	6.27	2.84	12.50	
MUNL → FDIG	LR	3.51	1.00	3.70	5.21	3.43	0.95		0.53	5.21	-9.26	72.55	78.43
	SR								-0.56	1.07	-2.87	19.35	
FDIG → MUNL	LR	8.92	8.95	8.10	8.52	7.98	7.11		6.70	12.52	0.51	72.55	82.35
	SR								2.19	3.58	1.26	25.81	
MLFS → FDIN	LR				1.26		8.87		4.95	8.87	0.65	14.29	32.65
	SR								1.45	3.85	0.21	29.73	
FDIN → MLFS	LR	-2.90	15.52	-14.87		-7.74	3.92	2.36	-2.45	18.19	-24.89	89.80	91.84
	SR			-4.51					0.24	9.53	-6.29	13.51	
MUNL → FDIN	LR	-2.09		-1.31					-0.53	1.37	-2.09	11.76	11.76
	SR								N/R	N/R	N/R	0.00	
FDIN → MUNL	LR	-2.28	11.94	-2.30	-1.67	0.19	4.08	0.00	1.26	11.94	-8.78	100.00	100.00
	SR								1.39	3.13	-0.34	9.68	
MLFS → FCR	LR	8.93	1.07		7.04	0.56	3.86	0.25	2.56	10.18	0.00	79.59	83.67
	SR			0.29				0.37	0.72	1.43	0.01	34.29	
FCR → MLFS	LR	0.13	-1.17	-3.89	-2.17	-1.17	0.32	-1.40	-1.31	0.73	-5.33	83.67	85.71
	SR			-1.54		-1.12			-0.96	-0.21	-1.95	34.29	
MUNL → FCR	LR	3.16	0.27		0.02	0.03		0.05	1.09	4.69	-0.19	88.24	92.16
	SR				-0.03	0.00		-0.04	0.13	0.49	-0.50	57.58	
FCR → MUNL	LR	3.04	1.29	-0.61	0.35	0.04		0.09	0.73	3.08	-0.80	92.16	92.16
	SR								0.38	0.38	-0.21	9.09	

Notes: As per Table 7.1 except the values are per 100,000 migrants and US\$1 billion in investment.

The results by investment variable suggest differing patterns for new and existing and inwards and outwards investors (Malaysian firms investing abroad). Existing investors appear to generate more demand for documented migrants and to a lesser extent undocumented, whereas new investors pre-empt periods of documented migrant contraction and undocumented migrant increase. This may reflect a direct relationship — such as government expectations that new investors preference local workers — or indirect through new investors competing against incumbent firms with greater documented migrant access, with the increase in undocumented an overall labour demand effect. That additional migration appears to encourage outwards investment runs counter to arguments that a near infinite labour supply discourages offshoring. It is however consistent with studies linking emigration with investment back to the home country, though further bilateral investment evidence is required to verify this. The contrast between gross and net FDI also suggests the relationship is about direct linkages between foreign investment and persons more so than increasing resource availability, that in the Malaysian context extends beyond expatriate transfers to a much wider migrant labour pool.

FDI policies and migration flows

Significant evidence that FDI policy tightening is associated with lower migrant inflows appears across all specifications and policy subcategories (Tables 7.3 and 7.4). The effect magnitudes are marginally greater for documented than undocumented migrants. The overall FDI policy indicator produces the largest average effect, with a minor (one unit) policy tightening reducing documented migrants by around 4 percent and undocumented by 2.2 percent over 15 years. The effects for investment incentives (respectively 1.8 and 1.7 percent for documented and undocumented) and other (uncategorised) investment policies (2.8 and 1.6 percent) are slightly lower.

The reverse relationship from migrants to FDI also produces statistically significant and long-term effects. Increasing migrant numbers prompt FDI policy liberalisation, with the elasticity somewhat higher for documented migrants (an extra 400,000 migrants results in a minor policy liberalisation, whereas the equivalent figure for undocumented is around 670,000). The elasticity is larger for policy subcategories, especially for ‘other’ investment policies. The only exception is that undocumented migrants have a statistically significant but minimal influence on FDI equity restrictions (it would take almost 4.9 million extra migrants to prompt a one-unit FDI policy tightening).

That FDI policy tightening is associated with reduced migration accords with the finding that FDI increases migration, suggesting an indirect channel via which FDI policy tightening reduces FDI and in turn migration. Additionally, FDI policy tightening appears to directly reduce migration, as most specifications include an FDI variable that captures indirect effects. As FDI policies have liberalised historically, the explanation perhaps involves migrant labour being an implicit investment incentive. That is, directing lesser migrant enforcement activity at foreign investors — for example, undertaking fewer workplace raids to check migrant documentation and working conditions — may represent an implicit investment incentive that has boosted migrant numbers alongside more generous explicit investment incentives. As most migrants are low-skilled, it is less likely to reflect the influence of FDI liberalisation on migrant decisions, as awareness of broader policies among such migrants is likely low.

Table 7.3: FDI policies and migration flows – per standard deviation

		FDIG/M (BW/LE)	FDIN/M (BW/LE)	FCR/M (BW/LE)	G/BW/ UNE/CAP	N/BW/ UNE/CAP	R/BW/ UNE/CAP	G/BW/ EDU/LIB	N/BW/ EDU/LIB	R/BW/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
FBW → MLFS	LR		-7.69	1.95	-33.28	-41.43	-49.27		-12.41	-13.62	-39.47	49.62	-154.24	94.23	96.15
(BW)	SR	-1.69				-15.14					-9.59	9.65	-23.06	17.78	
FBW → MUNL	LR	-9.36	-30.15	-30.58	-24.23	-9.44		-9.70		-17.10	-21.30	-3.86	-98.39	90.38	90.38
(BW)	SR									-7.30	-3.84	0.37	-7.30	10.81	
FPI → MLFS	LR	-12.49	-126.24	-52.20							-25.18	20.10	-126.24	93.75	100.00
(LE)	SR	-1.90									-5.27	7.70	-11.49	50.00	
FPI → MUNL	LR	-13.95	-30.35	-36.94							-23.00	-8.74	-44.06	87.50	87.50
(LE)	SR										-6.21	-2.70	-9.88	50.00	
FPN → MLFS	LR	-13.87	-124.88	-113.79							-65.99	-13.87	-132.26	100.00	100.00
(LE)	SR	-3.23									-3.23	-3.23	-3.23	14.29	
FPN → MUNL	LR	-8.59	-13.32	-42.88							-38.24	-8.59	-79.58	100.00	100.00
(LE)	SR		-1.52								-1.52	-1.52	-1.52	14.29	
FPE → MUNL	LR	-9.90		-11.67							-11.66	-9.90	-13.08	71.43	85.71
(LE)	SR		-3.25								-3.25	-3.25	-3.25	14.29	
MLFS → FBW	LR	0.09			-0.79	5.30	-7.93	-1.58	-0.42	1.25	-1.72	5.30	-9.26	86.54	90.38
(BW)	SR					2.07					0.12	3.40	-1.69	28.89	
MUNL → FBW	LR	-0.47		-2.76	-0.55			-1.54	0.56	-0.38	-1.75	3.40	-15.47	86.54	96.15
(BW)	SR			1.84			0.35	-0.14		0.35	0.33	1.84	-0.41	48.65	
MLFS → FPI	LR	0.26	-13.15	-4.27							-6.27	0.26	-23.36	81.25	81.25
(LE)	SR			-1.33							-1.57	-1.28	-1.87	28.57	
MUNL → FPI	LR	-0.75	-5.74	-7.58							-4.20	0.09	-16.66	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	
MLFS → FPN	LR	-2.06	-25.55	-21.97							-11.77	-2.06	-25.55	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	
MUNL → FPN	LR	-0.38	-0.83	-13.23							-13.95	-0.34	-43.98	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	
MUNL → FPE	LR	1.12	1.04	-0.15							0.25	1.20	-1.54	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	

Notes: As per Table 7.1. G=FDIG; N=FDIN; R=FCR.

Table 7.4: FDI policies and migration flows – per policy unit/migrant shock

		FDIG/M (BW/LE)	FDIN/M (BW/LE)	FCR/M (BW/LE)	G/BW/ UNE/CAP	N/BW/ UNE/CAP	R/BW/ UNE/CAP	G/BW/ EDU/LIB	N/BW/ EDU/LIB	R/BW/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
FBW → MLFS	LR		-0.78	0.20	-3.36	-4.18	-4.97		-1.25	-1.37	-3.98	5.01	-15.56	94.23	96.15
(BW)	SR	-0.17				-1.53					-0.97	0.97	-2.33	17.78	
FBW → MUNL	LR	-0.94	-3.04	-3.09	-2.44	-0.95		-0.98		-1.73	-2.15	-0.39	-9.93	90.38	90.38
(BW)	SR									-0.74	-0.39	0.04	-0.74	10.81	
FPI → MLFS	LR	-0.91	-9.24	-3.82							-1.84	1.47	-9.24	93.75	100.00
(LE)	SR	-0.14									-0.39	0.56	-0.84	50.00	
FPI → MUNL	LR	-1.02	-2.22	-2.70							-1.68	-0.64	-3.23	87.50	87.50
(LE)	SR										-0.45	-0.20	-0.72	50.00	
FPN → MLFS	LR	-0.58	-5.22	-4.76							-2.76	-0.58	-5.53	100.00	100.00
(LE)	SR	-0.14									-0.14	-0.14	-0.14	14.29	
FPN → MUNL	LR	-0.36	-0.56	-1.79							-1.60	-0.36	-3.33	100.00	100.00
(LE)	SR		-0.06								-0.06	-0.06	-0.06	14.29	
FPE → MUNL	LR	-1.25		-1.48							-1.48	-1.25	-1.66	71.43	85.71
(LE)	SR		-0.41								-0.41	-0.41	-0.41	14.29	
MLFS → FBW	LR	0.01			-0.11	0.73	-1.09	-0.22	-0.06	0.17	-0.24	0.73	-1.27	86.54	90.38
(BW)	SR					0.28					0.02	0.47	-0.23	28.89	
MUNL → FBW	LR	-0.04		-0.24	-0.05			-0.13	0.05	-0.03	-0.15	0.29	-1.32	86.54	96.15
(BW)	SR			0.16			0.03	-0.01		0.03	0.03	0.16	-0.04	48.65	
MLFS → FPI	LR	0.04	-1.81	-0.59							-0.86	0.04	-3.21	81.25	81.25
(LE)	SR			-0.18							-0.22	-0.18	-0.26	28.57	
MUNL → FPI	LR	-0.06	-0.49	-0.65							-0.36	0.01	-1.42	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	
MLFS → FPN	LR	-0.28	-3.52	-3.02							-1.62	-0.28	-3.52	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	
MUNL → FPN	LR	-0.03	-0.07	-1.13							-1.19	-0.03	-3.75	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	
MUNL → FPE	LR	0.10	0.09	-0.01							0.02	0.10	-0.13	100.00	100.00
(LE)	SR										N/R	N/R	N/R	0.00	

Notes: As per Table 7.1

The findings for the reverse relationship are unexpected, as increased migration can spur greater negativity towards all foreigners (as the evidence in Chapter 6 suggests). They are more consistent with arguments that concurrently increasing the supply of labour and capital is desirable and thus increased inflows of labour create pressure to liberalise FDI policies (though why incentives increase in this situation is harder to reconcile, unless more potential investors create more effective rent seeking).

Migration policies and FDI flows

The results for the overall migration policy indicator replicate the Australian evidence, with migration policy tightening increasing gross FDI and foreign company registrations (Tables 7.5-7.8). A minor policy shock predictively causes an 8 percent increase in gross FDI and a 0.8 percent increase in company registrations. On the other hand it decreases net FDI by 1.1 percent in the short-term (five years) and 2.7 percent long-term. Under the indicator excluding skilled migrant policies, the effects retain the same sign but are larger (smaller) for gross FDI (company registrations) and insignificant for net FDI.

The unskilled indicator and subcategory results provide insights into the overall pattern. Migrant entry and integration policies follow the more intuitive pattern of tightening reducing FDI (by 4-4.5 percent per unit shock), whereas border control policies appear to underpin the overall indicator result. A minor (one unit) border tightening increases company registrations by about 1.1 percent and gross FDI by about 3.4 percent — though the latter finding is less robustly evidenced.

In the reverse direction, more foreign companies are associated with migration policy tightening, perhaps reflecting competitive disadvantages in sourcing migrants that encourage lobbying to tighten policies. On the other hand, increased gross FDI is associated with migration policy liberalisation, albeit not as robustly evidenced and weighted towards expatriate favouring policies rather than foreign workers and migrants overall. All three investment variables appear to have a liberalising influence on entry policies and a tightening influence on border control.

Of greatest significance is that migration policies appear to shape the investment environment in intuitive and complementary ways. Malaysia's investment environment would benefit from increasing incentives for migrants to use formal migration channels, achieved through easing entry and integration policies (such as less expensive visas with fewer restrictions on employment transfer and family accompaniment, and providing community integration services) and border tightening that increases the relative benefits of formal migration.

Table 7.5: Migration policies and FDI flows– per standard deviation

		MLFS/ FBW	MUNL/ FBW	MLFS/ FPI	MUNL/ FPI	MLFS/FBW/ UNE/CAP	MUNL/FBW/ UNE/CAP	MLFS /FBW/ EDU/LIB	MUNL /FBW/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FDIG	LR	-32.49	111.71		107.77	18.53	13.88		27.38	48.56	124.93	-32.49	78.79	81.82
	SR									34.26	50.14	12.72	27.59	
MBW → FDIN	LR	-55.57	-14.11		-21.52	-15.55	-3.00			-16.56	-2.64	-66.19	42.42	78.79
	SR	-16.44	-5.94						-5.49	-6.74	-1.76	-22.86	76.92	
MBW → FCR	LR	15.98	8.55	-18.59	-3.22	7.25	-0.31	4.16	4.35	5.05	33.88	-18.59	96.97	96.97
	SR		3.91		0.19			1.78	2.62	1.86	3.91	0.19	56.52	
MBW2 → FDIG	LR	17.23	114.47		110.34					93.05	145.23	17.23	85.71	85.71
	SR									54.93	54.93	54.93	20.00	
MBW2 → FDIN	LR									5.30	51.43	-40.83	28.57	28.57
	SR									-13.39	-13.39	-13.39	20.00	
MBW2 → FCR	LR	5.45	7.26	-19.92	-1.29					1.28	9.82	-19.92	85.71	85.71
	SR									N/A	N/A	N/A	0.00	
MLE → FDIG	LR				-9.52					-18.31	-3.49	-47.56	62.50	75.00
	SR									-21.70	-19.33	-24.07	50.00	
MLE → FDIN	LR			-20.91	-34.74					-23.83	-15.83	-34.74	37.50	87.50
	SR									4.78	10.02	-5.56	100.00	
MLE → FCR	LR				-25.45					-17.56	-2.55	-31.65	87.50	87.50
	SR									N/A	N/A	N/A	0.00	
MIG → FDIG	LR				131.92					117.52	132.13	88.52	60.00	60.00
	SR									N/A	N/A	N/A	0.00	
MIG → FDIN	LR			-12.81						-16.98	-9.91	-28.23	60.00	60.00
	SR									-8.44	-8.44	-8.44	33.33	
MIG → FCR	LR			-16.83	-4.38					-2.48	10.52	-16.83	80.00	80.00
	SR									N/A	N/A	N/A	0.00	
MBC → FDIG	LR									42.54	58.57	26.52	40.00	60.00
	SR									3.97	3.97	3.97	25.00	
MBC → FDIN	LR	-8.612								6.30	21.20	-8.61	40.00	40.00
	SR									N/A	N/A	N/A	0.00	
MBC → FCR			13.00							13.53	18.99	10.83	80.00	80.00
										4.09	4.09	4.09	20.00	

Notes: As per Table 7.1.

Table 7.6: Migration policies and FDI flows– per policy shock

		MLFS/ FBW	MUNL/ FBW	MLFS/ FPI	MUNL/ FPI	MLFS/FBW/ UNE/CAP	MUNL/FBW/ UNE/CAP	MLFS /FBW/ EDU/LIB	MUNL /FBW/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FDIG	LR	-5.37	18.48		17.83	3.07	2.30		4.53	8.04	20.67	-5.37	78.79	81.82
	SR									5.67	8.30	2.10	27.59	
MBW → FDIN	LR	-9.19	-2.33		-3.56	-2.57	-0.50			-2.74	-0.44	-10.95	42.42	78.79
	SR	-2.72	-0.98						-0.91	-1.12	-0.29	-3.78	76.92	
MBW → FCR	LR	2.64	1.41	-3.08	-0.53	1.20	-0.05	0.69	0.72	0.83	5.61	-3.08	96.97	96.97
	SR		0.65					0.29	0.43	0.31	0.65	0.03	56.52	
MBW2 → FDIG	LR	2.37	15.75		15.19					12.81	19.99	2.37	85.71	85.71
	SR									7.56	7.56	7.56	20.00	
MBW2 → FDIN	LR									0.73	7.08	-5.62	28.57	28.57
	SR									-1.84	-1.84	-1.84	20.00	
MBW2 → FCR	LR	0.75	1.00	-2.74	-0.18					0.18	1.35	-2.74	85.71	85.71
	SR									N/A	N/A	N/A	0.00	
MLE → FDIG	LR				-2.32					-4.47	-0.85	-11.60	62.50	75.00
	SR									-5.29	-4.71	-5.87	50.00	
MLE → FDIN	LR			-5.10	-8.47					-5.81	-3.86	-8.47	37.50	87.50
	SR									1.17	2.44	-1.36	100.00	
MLE → FCR	LR				-6.21					-4.28	-0.62	-7.72	87.50	87.50
	SR									N/A	N/A	N/A	0.00	
MIG → FDIG	LR				10.79					9.61	10.80	7.24	60.00	60.00
	SR									N/A	N/A	N/A	0.00	
MIG → FDIN	LR			-1.05						-1.39	-0.81	-2.31	60.00	60.00
	SR									-0.69	-0.69	-0.69	33.33	
MIG → FCR	LR			-1.38	-0.36					-0.20	0.86	-1.38	80.00	80.00
	SR									N/A	N/A	N/A	0.00	
MBC → FDIG	LR									3.36	4.63	2.10	40.00	60.00
	SR									0.31	0.31	0.31	25.00	
MBC → FDIN	LR	-0.68								0.50	1.68	-0.68	40.00	40.00
	SR									N/A	N/A	N/A	0.00	
MBC → FCR			1.03							1.07	1.50	0.86	80.00	80.00
										0.32	0.32	0.32	20.00	

Notes: As per Table 7.1, except the values are in per policy unit terms; effectively an elasticity.

Table 7.7: FDI flows and migration policies – per standard deviation

		MLFS/ FBW	MUNL/ FBW	MLFS/ FPI	MUNL/ FPI	MLFS/FBW/ UNE/CAP	MUNL/FBW/ UNE/CAP	MLFS/FBW/ EDU/LIB	MUNL/FBW/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
FDIG → MBW	LR							-0.46	-0.02	-0.46	0.40	-1.87	39.39	45.45
	SR									-0.98	-0.93	-1.03	6.67	
FDIN → MBW	LR	-0.19	-0.59	-0.25	-0.72	-0.46	-0.36	0.02	-0.10	-0.07	2.99	-2.91	93.94	96.97
	SR			0.36					-0.13	-0.12	0.36	-1.03	15.38	
FCR → MBW	LR	1.93	2.38			0.04		-0.11		0.92	5.34	-0.47	63.64	69.70
	SR	0.79	1.03							0.56	1.03	0.25	30.43	
FDIG → MBW2	LR	-0.46		-1.01						0.39	1.93	-1.01	71.43	71.43
	SR	-0.26		-0.48						-0.37	-0.26	-0.48	40.00	
FDIN → MBW2	LR	-0.59	-0.33	-0.44	0.01					-0.74	0.01	-2.86	85.71	100.00
	SR									-0.50	0.00	-1.00	40.00	
FCR → MBW2	LR		0.42		0.71					0.74	1.08	0.42	42.86	57.14
	SR				0.48					0.52	0.60	0.47	60.00	
FDIG → MLE	LR			-4.81						-2.71	-1.39	-4.81	50.00	50.00
	SR									N/A	N/A	N/A	0.00	
FDIN → MLE	LR			-1.27	-1.82					-1.04	-0.06	-2.23	100.00	100.00
	SR									-0.03	-0.03	-0.03	25.00	
FCR → MLE	LR				-6.78					-2.78	0.13	-6.78	87.50	87.50
	SR									-0.57	-0.41	-0.74	50.00	
FDIG → MIG	LR			-3.02						-1.88	0.98	-3.61	60.00	60.00
	SR									N/A	N/A	N/A	0.00	
FDIN → MIG	LR			7.69	0.88					1.48	7.69	-2.51	100.00	100.00
	SR									N/A	N/A	N/A	0.00	
FCR → MIG	LR									-1.41	3.20	-6.02	40.00	60.00
	SR									1.01	1.01	1.01	33.33	
FDIG → MBC	LR	-0.75	0.74							1.32	5.42	-0.75	80.00	80.00
	SR	-0.65								-0.50	-0.36	-0.65	50.00	
FDIN → MBC	LR		1.46							0.33	1.46	-1.68	80.00	100.00
	SR	-1.25								-1.25	-1.25	-1.25	100.00	
FCR → MBC		-2.01	2.12							1.06	2.12	-2.01	100.00	100.00
										0.55	0.55	0.55	20.00	

Notes: As per Table 7.1.

Table 7.8: FDI flows and migration policies – per investment shock

		MLFS/ FBW	MUNL/ FBW	MLFS/ FPI	MUNL/ FPI	MLFS/FBW/ UNE/CAP	MUNL/FBW/ UNE/CAP	MLFS /FBW/ EDU/LIB	MUNL /FBW/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
FDIG → MBW	LR							-0.13	0.00	-0.13	0.11	-0.51	39.39	45.45
	SR									-0.27	-0.26	-0.28	6.67	
FDIN → MBW	LR	-0.09	-0.29	-0.12	-0.35	-0.23	-0.17	0.01	-0.05	-0.04	1.45	-1.41	93.94	96.97
	SR			0.17					-0.06	-0.06	0.17	-0.50	15.38	
FCR → MBW	LR	0.09	0.12			0.00		-0.01		0.05	0.26	-0.02	63.64	69.70
	SR	0.04	0.05							0.03	0.05	0.01	30.43	
FDIG → MBW2	LR	-0.13		-0.28						0.11	0.53	-0.28	71.43	71.43
	SR	-0.07		-0.13						-0.10	-0.07	-0.13	40.00	
FDIN → MBW2	LR	-0.29	-0.16	-0.21	0.01					-0.36	0.01	-1.39	85.71	100.00
	SR									-0.24	0.00	-0.48	40.00	
FCR → MBW2	LR		0.02		0.03					0.04	0.05	0.02	42.86	57.14
	SR				0.02					0.03	0.03	0.02	60.00	
FDIG → MLE	LR			-1.32						-0.74	-0.38	-1.32	50.00	50.00
	SR									N/A	N/A	N/A	0.00	
FDIN → MLE	LR			-0.61	-0.88					-0.50	-0.03	-1.08	100.00	100.00
	SR									-0.01	-0.01	-0.01	25.00	
FCR → MLE	LR				-0.33					-0.14	0.01	-0.33	87.50	87.50
	SR									-0.03	-0.02	-0.04	50.00	
FDIG → MIG	LR			-0.83						-0.52	0.27	-0.99	60.00	60.00
	SR									N/A	N/A	N/A	0.00	
FDIN → MIG	LR			3.73	0.43					0.72	3.73	-1.22	100.00	100.00
	SR									N/A	N/A	N/A	0.00	
FCR → MIG	LR									-0.07	0.16	-0.29	40.00	60.00
	SR									0.05	0.05	0.05	33.33	
FDIG → MBC	LR	-0.21	0.20							0.36	1.49	-0.21	80.00	80.00
	SR	-0.18								-0.14	-0.10	-0.18	50.00	
FDIN → MBC	LR		0.71							0.16	0.71	-0.81	80.00	100.00
	SR	-0.61								-0.61	-0.61	-0.61	100.00	
FCR → MBC		-0.10	0.10							0.05	0.10	-0.10	100.00	100.00
										0.03	0.03	0.03	20.00	

Notes: As per Table 7.5.

Migration and FDI policies

The long-term relationships between the various migration and FDI policy subcategory indicators are statistically significant but mixed (Tables 7.9 and 7.10). The aggregate policy indicators produce a negative bidirectional relationship that is more consistently estimated in the migration to FDI policy direction, suggesting migration policy tightening supports FDI policy loosening longer-term (with an elasticity of about 0.2). The elasticity is slightly larger and more consistently estimated with skilled migration policies excluded, suggesting tightening lower-skilled migration policies is more consistent with FDI liberalisation.

Lower-skilled migration policies are also more strongly negatively associated with FDI incentives policies (-0.85) than overall migration policies (-0.09), while the average relationship from FDI incentives to overall migration policies is slightly positive. Investment incentives and relatively skilled migration policies appear mutually reinforcing, consistent with positive expatriate and investor linkages.

The migration legal entry and FDI incentives indicators more firmly demonstrate a positive bidirectional relationship, most strongly in the migration to FDI direction (an elasticity of 1.1 compared to 0.3). The legal entry indicator and other restrictions indicators follow a similar pattern but with a larger difference in magnitude (4.6 versus 0.2). The relationship for migrant integration policies (MIG) is less clear but tending negative, with inconsistency between models involving FDI flows and company registrations. There is also a clear negative bidirectional relationship between border control policies and overall FDI policies.

Together the results provide insights into policy on migration and investment. That overall, policies trend in opposing directions reflects the continuing perception that FDI is beneficial for long-term economic development whereas migration is a temporary necessity. It perhaps also reflects economic shocks being associated with migration policy tightening (hiring freezes and repatriations) and heightened efforts to attract foreign investors. The underlying labour market dynamics between foreign and domestic firms and documented and undocumented migrants may also be relevant here, but it is harder to gauge as migration policy tightening may increase the employment share of undocumented workers, which incumbent firms have better access to (thus spurring greater FDI policy liberalisation needed to convince foreign investors to invest despite undocumented workers providing a competitive disadvantage to new entrants).

That the overall and unskilled policy indicators exhibit differences is unsurprising, as both the prior literature and preceding chapters suggest skilled migration supports additional FDI. Likewise the positive relationship between legal entry policies and investment incentives suggests that Malaysia faced more explicit pressures to link and liberalise these policies simultaneously. For example, greater allowances for expatriate workers or more generous visa conditions would be consistent with reforms encouraging additional FDI.

Arguably the negative relationship between border control policies and FDI settings is complementary. That is, to the extent border tightening provides investment environment stability and confidence and reduces competitive advantages for incumbents accessing cheap, undocumented labour, it is analogous to FDI policy liberalisation. That the relationship is consistently and bidirectionally robust supports this.

Table 7.9: Migration and FDI policies – per standard deviation

	MLFS/ FDIG	MUNL/ FDIG	MLFS/ FDIN	MUNL/ FDIN	MLFS/ FCR	MUNL/ FCR	L/G/ UNE/CAP	U/G/ UNE/CAP	L/G/ EDU/LIB	U/G/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FBW	-0.03	-1.53	-1.69	-3.30	-0.24	1.66	-1.44	-0.50	-0.46	1.21	-1.42	6.13	-10.75	88.24	94.12
	-0.04			-1.39		0.76	0.07				-0.27	1.96	-1.86	43	
FBW → MBW	1.86	-0.28	0.76	-2.15	1.89	1.67	0.40	0.45			-0.33	2.90	-5.21	41.18	52.94
	0.65					0.71					0.22	0.84	-0.31	26	
MBW2 → FBW	-1.34	-1.68	-4.00	-2.87		-2.17					-2.31	-1.34	-4.00	85.71	100.00
	-0.38		-1.28	-0.76	-0.91	-0.71					-0.77	-0.38	-1.28	100	
FBW → MBW2	-0.96	-0.39	-0.14	-1.19		-0.98					-0.73	-0.14	-1.19	71.43	71.43
	-0.30										-0.30	-0.30	-0.30	17	
MBW → FPI	-1.45	-3.03	1.72	7.93	-0.45	0.38					-0.52	7.93	-8.76	100.00	100.00
											N/A	N/A	N/A	0	
FPI → MBW		-0.20	-0.27	3.36	2.10						0.41	3.36	-2.93	71.43	85.71
					0.10						-0.35	0.10	-0.80	40	
MBW2 → FPI		-3.05	-4.94	-4.43	-0.04	-0.55					-6.10	-0.04	-23.61	85.71	100.00
	-0.58		-1.85			-1.00					-1.14	-0.58	-1.85	60	
FPI → MBW2	0.67	-0.42	-0.43	-1.56	2.37	-0.69					-0.33	2.37	-2.24	100.00	100.00
											N/A	N/A	N/A	0	
MPILE → FPI	0.84	0.36	7.84	12.13		10.20					4.62	12.13	-3.63	85.71	85.71
											N/A	N/A	N/A	0	
FPI → MPILE	0.05	1.61	8.87	6.71	0.68	7.34					4.21	8.87	0.05	85.71	85.71
											N/A	N/A	N/A	0	
MPIIG → FPI		-3.56	-2.75	-13.12	3.93	1.84					-4.76	3.93	-14.88	85.71	85.71
			-0.94								-0.94	-0.94	-0.94	25	
FPI → MPIIG		-1.11		-4.23	5.68						-0.58	5.68	-4.23	57.14	71.43
					0.29						0.29	0.29	0.29	25	
MPILE → FPN	14.40	3.04	26.12	-0.92	28.36	27.69					18.75	32.56	-0.92	100.00	100.00
											N/A	N/A	N/A	0	
FPN → MPILE	0.33	0.64	6.67		6.71	6.79					4.40	6.79	0.33	85.71	85.71
											N/A	N/A	N/A	0	
MPIBC → FBW	-0.90	-6.26	-0.29	-7.97		-5.29					-4.16	-0.29	-7.97	85.71	85.71
		-2.29				-1.99					-1.97	-1.64	-2.29	50	
FBW → MPIBC	-4.63	-7.35	-0.36	-10.86	0.20	-6.18					-4.54	0.20	-10.86	100.00	100.00
	-1.50	-2.67	-0.52								-1.39	-0.52	-2.67	67	

Notes: As per Table 7.1.

Table 7.10: Migration and FDI policies – per policy shock

	MLFS/ FDIG	MUNL/ FDIG	MLFS/ FDIN	MUNL/ FDIN	MLFS/ FCR	MUNL/ FCR	L/G/ UNE/CAP	U/G/ UNE/CAP	L/G/ EDU/LIB	U/G/ EDU/LIB	AVG	MAX	MIN	% LR/SR	% COMB
MBW → FBW	-0.01	-0.25	-0.28	-0.55	-0.04	0.27	-0.24	-0.08	-0.08	0.20	-0.23	1.01	-1.78	88.24	94.12
	-0.01			-0.23		0.13	0.01				-0.04	0.32	-0.31	43	
FBW → MBW	0.19	-0.03	0.08	-0.22	0.19	0.17	0.04	0.04			-0.03	0.29	-0.53	41.18	52.94
	0.07					0.07					0.02	0.09	-0.03	26	
MBW2 → FBW	-0.18	-0.23	-0.55	-0.40		-0.30					-0.32	-0.18	-0.55	85.71	100.00
	-0.05		-0.18	-0.10	-0.12	-0.10					-0.11	-0.05	-0.18	100	
FBW → MBW2	-0.10	-0.04	-0.01	-0.12		-0.10					-0.07	-0.01	-0.12	71.43	71.43
	-0.03										-0.03	-0.03	-0.03	17	
MBW → FPI	-0.24	-0.50	0.28	1.31	-0.07	0.06					-0.09	1.31	-1.45	100.00	100.00
											N/A	N/A	N/A	0	
FPI → MBW		-0.01	-0.02	0.25	0.15						0.03	0.25	-0.21	71.43	85.71
					0.01						-0.03	0.01	-0.06	40	
MBW2 → FPI		-0.42	-0.68	-0.61	-0.01	-0.08					-0.84	-0.01	-3.25	85.71	100.00
	-0.08		-0.25			-0.14					-0.16	-0.08	-0.25	60	
FPI → MBW2	0.05	-0.03	-0.03	-0.11	0.17	-0.05					-0.02	0.17	-0.16	100.00	100.00
											N/A	N/A	N/A	0	
MPILE → FPI	0.21	0.09	1.91	2.96		2.49					1.13	2.96	-0.89	85.71	85.71
											N/A	N/A	N/A	0	
FPI → MPILE	0.00	0.12	0.65	0.49	0.05	0.54					0.31	0.65	0.00	85.71	85.71
											N/A	N/A	N/A	0	
MPIIG → FPI		-0.29	-0.23	-1.07	0.32	0.15					-0.39	0.32	-1.22	85.71	85.71
			-0.08								-0.08	-0.08	-0.08	25	
FPI → MPIIG		-0.08		-0.31	0.42						-0.04	0.42	-0.31	57.14	71.43
						0.02					0.02	0.02	0.02	25	
MPILE → FPN	3.51	0.74	6.37	-0.22	6.92	6.75					4.57	7.94	-0.22	100.00	100.00
											N/A	N/A	N/A	0	
FPN → MPILE	0.01	0.03	0.28		0.28	0.28					0.18	0.28	0.01	85.71	85.71
											N/A	N/A	N/A	0	
MPIBC → FBW	-0.07	-0.49	-0.02	-0.63		-0.42					-0.33	-0.02	-0.63	85.71	85.71
		-0.18				-0.16					-0.16	-0.13	-0.18	50	
FBW → MPIBC	-0.47	-0.74	-0.04	-1.10	0.02	-0.62					-0.46	0.02	-1.10	100.00	100.00
	-0.15	-0.27	-0.05								-0.14	-0.05	-0.27	67	

Notes: As per Table 7.1, except the values are in per policy unit terms — effectively an elasticity.

Factor flow outcomes

An examination of the relationships between migration, FDI and economic variables suggests inflows of both migrants and FDI has supported Malaysia's development, with this chapter's evidence adding to that of Chapter 4 (Tables 7.11-7.14).

Increased documented and undocumented migrants are both associated with higher GDP per capita, with undocumented migrants having larger per migrant effects (an extra 100,000 migrants increases official GDP per capita by 0.85 and 1 percent respectively, and unofficial GDP per capita — including undocumented migrants in the denominator — by 0.1 and 0.9 percent respectively). The GDP benefits of undocumented migrants are larger in specifications incorporating policies and FDI, whereas the results for documented migrants are greatly reduced under FDI flows (gross and net) specifications (with evidence that policies improve migration's benefits) and negative under company registrations specifications (where policies appear to undermine migration's benefits).

Increased undocumented migration also appears to be associated with superior long-term unemployment outcomes. The average effect is quite large, at around 5.1 percent lower unemployment per 100,000 migrants, though the magnitude varies between specifications. The average for documented migrants is also unemployment reducing but only around 0.85 percent per 100,000 migrants, and the relationship reverses under the full policy specifications. This suggests undocumented migrants are more complementary than documented migrants in creating adjacent employment, and/or greater contributors to sustaining labour-intensive industries and production methods.

Part of the difference may also reflect migrant groups' differing effects on capital accumulation, with undocumented (documented) having a slight positive (negative) effect, though the duration of this effect appears shorter. Undocumented migrants also increase trade whereas for documented migrants there is no statistically significant relationship with trade.

One area in which documented migrants dominate however is in driving increases in complexity and education. Documented migration has a strong positive association with both the overall economic complexity (ECI) and manufacturing specific (PCI) measures, whereas the results for undocumented migration are less clearly positive. The education results show a clear divide, with documented migrants associated with human capital deepening and undocumented migrants a contraction. Interestingly, the average effect of documented and undocumented migration on liberal democracy is almost the same, positive in sign but only statistically significant in around half the modelled specifications.

Table 7.11: Migration flow outcomes – per standard deviation

		FDIG/MBW/FBW	FDIN/ MBW/ FBW	FCR/ MBW/ FBW	FDIG/MBW/ FBW/(*)	FDIN/MBW/ FBW/(*)	FCR/MBW/ FBW/(*)	AVG	MAX	MIN	% LR	% COMB
MLFS → UNE (CAP)	LR	9.92				60.39	61.44	-6.23	61.44	-42.09	54.84	70.97
MUNL → UNE (CAP)	LR	-36.62	-64.96		-5.83	-69.13		-59.44	-5.13	-105.08	83.87	96.77
MLFS → CAP (UNE)	LR					0.55	-9.38	-0.98	8.81	-9.38	33.33	73.33
MUNL → CAP (UNE)	LR				6.58	-10.98		2.27	10.95	-10.98	46.67	80.00
MLFS → RGDPPCO	LR	0.68	2.37	-5.81				6.21	48.45	-12.68	89.29	96.43
MUNL → RGDPPCO	LR	-5.76	18.94	29.75				11.88	46.57	-7.75	78.57	92.86
MLFS → RGDPPCU	LR	1.00	-3.66	-2.69				0.71	21.43	-12.65	91.67	91.67
MUNL → RGDPPCU	LR	-7.94	6.71	12.65				10.69	27.22	-7.94	83.33	100.00
MLFS → TRADE	LR							6.58	6.58	6.58	8.33	8.33
MUNL → TRADE	LR							9.03	34.55	-2.98	50.00	83.33
MLFS → ECI	LR	4.32	4.11	2.38				8.64	46.99	-4.84	91.67	91.67
MUNL → ECI	LR	-3.36	6.60	2.64				-3.10	10.30	-36.84	66.67	66.67
MLFS → PCI	LR	3.87		17.91				11.36	17.91	3.87	75.00	83.33
MUNL → PCI	LR		12.59	1.98				1.31	20.76	-79.01	75.00	75.00
MLFS → EDU (LIB)	LR	3.14	4.37	-0.20	2.51	2.08	-0.66	1.75	4.37	-0.66	80.00	80.00
MUNL → EDU (LIB)	LR	-1.42	-1.57			-1.59		-1.36	-0.90	-1.59	60.00	70.00
MLFS → LIB (EDU)	LR		3.83	14.89				15.47	22.15	3.83	50.00	60.00
MUNL → LIB (EDU)	LR				0.02			29.44	58.71	0.02	40.00	50.00

Notes: As per Table 7.1.

Table 7.12: Migration flow outcomes – per migrant shock

		FDIG/MBW/FBW	FDIN/ MBW/ FBW	FCR/ MBW/ FBW	FDIG/MBW/ FBW/(*)	FDIN/MBW/ FBW/(*)	FCR/MBW/ FBW/(*)	AVG	MAX	MIN	% LR	% COMB
MLFS → UNE (CAP)	LR	1.37				8.31	8.45	-0.86	8.45	-5.79	54.84	70.97
MUNL → UNE (CAP)	LR	-3.12	-5.53		-0.50	-5.89		-5.06	-0.44	-8.95	83.87	96.77
MLFS → CAP (UNE)	LR					0.07	-1.29	-0.13	1.21	-1.29	33.33	73.33
MUNL → CAP (UNE)	LR				0.56	-0.94		0.19	0.93	-0.94	46.67	80.00
MLFS → RGDPPCO	LR	0.09	0.33	-0.80				0.85	6.66	-1.74	89.29	96.43
MUNL → RGDPPCO	LR	-0.49	1.61	2.53				1.01	3.97	-0.66	78.57	92.86
MLFS → RGDPPCU	LR	0.14	-0.50	-0.37				0.10	2.95	-1.74	91.67	91.67
MUNL → RGDPPCU	LR	-0.68	0.57	1.08				0.91	2.32	-0.68	83.33	100.00
MLFS → TRADE	LR							0.91	0.91	0.91	8.33	8.33
MUNL → TRADE	LR							0.77	2.94	-0.25	50.00	83.33
MLFS → ECI	LR	0.59	0.57	0.33				1.19	6.46	-0.67	91.67	91.67
MUNL → ECI	LR	-0.29	0.56	0.23				-0.26	0.88	-3.14	66.67	66.67
MLFS → PCI	LR	0.53		2.46				1.56	2.46	0.53	75.00	83.33
MUNL → PCI	LR		1.07	0.17				0.11	1.77	-6.73	75.00	75.00
MLFS → EDU (LIB)	LR	0.43	0.60	-0.03	0.35	0.29	-0.09	0.24	0.60	-0.09	80.00	80.00
MUNL → EDU (LIB)	LR	-0.12	-0.13			-0.14		-0.12	-0.08	-0.14	60.00	70.00
MLFS → LIB (EDU)	LR		0.53	2.05				2.13	3.05	0.53	50.00	60.00
MUNL → LIB (EDU)	LR				0.00			2.51	5.00	0.00	40.00	50.00

Notes: As per Table 7.1.

Table 7.13: FDI flow outcomes – per standard deviation

		MLFS/MBW/FBW	MUNL/MBW/FBW	MLFS /MBW/FBW/(*)	MUNL /MBW/FBW/(*)	AVG	MAX	MIN	% LR	% COMB
FDIG → UNE (CAP)	LR	-4.11	-48.26	-4.27	-53.93	-41.61	-4.11	-71.90	72.73	72.73
FDIN → UNE (CAP)	LR	2.80	27.14	7.54	-17.72	-3.48	59.96	-71.88	90.91	95.45
FCR → UNE (CAP)	LR			10.30		4.92	51.78	-22.23	36.36	50.00
FDIG → CAP (UNE)	LR				5.91	5.66	8.54	-0.68	50.00	70.00
FDIN → CAP (UNE)	LR		0.17	11.76	1.79	2.50	11.76	-0.34	80.00	90.00
FCR → CAP (UNE)	SR	-0.27			0.56	-1.63	2.46	-5.00	30.00	90.00
FDIG → RGDPPCO	LR	0.70	5.39			17.69	38.86	0.70	90.00	100.00
FDIN → RGDPPCO	LR	2.90	1.11			0.33	17.22	-7.77	85.00	85.00
FCR → RGDPPCO	LR	-10.65	-0.25			-0.48	13.53	-14.40	80.00	100.00
FDIG → RGDPPCU	LR	-3.81	2.41			18.12	33.24	-3.81	100.00	100.00
FDIN → RGDPPCU	LR	0.05	1.72			-2.40	1.72	-9.53	100.00	100.00
FCR → RGDPPCU	LR	0.56	-1.42			0.84	8.37	-6.42	87.50	87.50
FDIG → TRADE	LR					17.80	17.80	17.80	12.50	37.50
FDIN → TRADE	LR	0.79	-0.36			0.76	14.67	-7.56	87.50	87.50
FCR → TRADE	LR		-11.99			5.63	42.30	-11.99	62.50	87.50
FDIG → ECI	LR	0.06	3.30			5.95	13.07	0.06	100.00	100.00
FDIN → ECI	LR	-2.02	0.18			-3.87	19.55	-57.28	100.00	100.00
FCR → ECI	LR	-4.24	2.34			1.68	40.64	-32.74	87.50	87.50
FDIG → PCI	LR	-4.04				0.36	7.43	-4.04	37.50	62.50
FDIN → PCI	LR	-3.91	1.26			8.36	47.01	-12.43	75.00	62.50
FCR → PCI	LR	3.43				11.05	18.67	3.43	25.00	50.00
FDIG → EDU (LIB)	LR	-0.64	0.77	-0.68		-0.61	0.77	-2.36	85.71	85.71
FDIN → EDU (LIB)	LR	-1.40	0.32	0.83	0.35	0.14	0.83	-1.40	100.00	100.00
FCR → EDU (LIB)	LR	-3.23	-0.90	-3.33		-1.08	1.86	-3.33	85.71	85.71
FDIG → LIB (EDU)	SR		0.90		-0.10	1.85	3.55	-0.10	66.67	71.43
FDIN → LIB (EDU)	LR	2.62	0.41	0.55	-0.97	-1.00	6.35	-17.84	100.00	100.00
FCR → LIB (EDU)	LR	2.67		-2.47		4.09	16.47	-2.47	57.14	57.14

Notes: As per Table 7.1.

Table 7.14: FDI flow outcomes – per investment shock

		MLFS/MBW/FBW	MUNL/MBW/FBW	MLFS /MBW/FBW/(*)	MUNL /MBW/FBW/(*)	AVG	MAX	MIN	% LR	% COMB
FDIG → UNE (CAP)	LR	-0.11	-1.33	-0.12	-1.48	-1.14	-0.11	-1.98	72.73	72.73
FDIN → UNE (CAP)	LR	0.14	1.32	0.37	-0.86	-0.17	2.91	-3.49	90.91	95.45
FCR → UNE (CAP)	LR			0.05		0.02	0.25	-0.11	36.36	50.00
FDIG → CAP (UNE)	LR				0.16	0.16	0.23	-0.02	50.00	70.00
FDIN → CAP (UNE)	LR		0.01	0.57	0.09	0.12	0.57	-0.02	80.00	90.00
FCR → CAP (UNE)	SR	0.00			0.00	-0.01	0.01	-0.02	30.00	90.00
FDIG → RGDPPCO	LR	0.02	0.15			0.49	1.07	0.02	90.00	100.00
FDIN → RGDPPCO	LR	0.14	0.05			0.02	0.84	-0.38	85.00	85.00
FCR → RGDPPCO	LR	-0.05	0.00			0.00	0.07	-0.07	80.00	100.00
FDIG → RGDPPCU	LR	-0.10	0.07			0.50	0.91	-0.10	100.00	100.00
FDIN → RGDPPCU	LR	0.00	0.08			-0.12	0.08	-0.46	100.00	100.00
FCR → RGDPPCU	LR	0.00	-0.01			0.00	0.04	-0.03	87.50	87.50
FDIG → TRADE	LR					0.49	0.49	0.49	12.50	37.50
FDIN → TRADE	LR	0.04	-0.02			0.04	0.71	-0.37	87.50	87.50
FCR → TRADE	LR		-0.06			0.03	0.21	-0.06	62.50	87.50
FDIG → ECI	LR	0.00	0.09			0.16	0.36	0.00	100.00	100.00
FDIN → ECI	LR	-0.10	0.01			-0.19	0.95	-2.78	100.00	100.00
FCR → ECI	LR	-0.02	0.01			0.01	0.20	-0.16	87.50	87.50
FDIG → PCI	LR	-0.11				0.01	0.20	-0.11	37.50	62.50
FDIN → PCI	LR	-0.19	0.06			0.41	2.28	-0.60	75.00	62.50
FCR → PCI	LR	0.02				0.05	0.09	0.02	25.00	50.00
FDIG → EDU (LIB)	LR	-0.02	0.02	-0.02		-0.02	0.02	-0.06	85.71	85.71
FDIN → EDU (LIB)	LR	-0.07	0.02	0.04	0.02	0.01	0.04	-0.07	100.00	100.00
FCR → EDU (LIB)	LR	-0.02	0.00	-0.02		-0.01	0.01	-0.02	85.71	85.71
FDIG → LIB (EDU)	SR		0.02		0.00	0.05	0.10	0.00	66.67	71.43
FDIN → LIB (EDU)	LR	0.13	0.02	0.03	-0.05	-0.05	0.31	-0.87	100.00	100.00
FCR → LIB (EDU)	LR	0.01		-0.01		0.02	0.08	-0.01	57.14	57.14

Notes: As per Table 7.1.

The outcomes for FDI contain some heterogeneity but are mostly pro-development. Gross inflows are associated with strong positive outcomes including a large unemployment reduction (11.4 percent per US\$1 billion in investment, with the standard deviation shock about four-fifths of that for undocumented migrants), higher GDP per capita (4.9 percent, standard deviation shock about 1.5 times undocumented migrants), higher capital stock, liberal democracy and economic complexity. The results for net FDI on unemployment are more mixed across specifications, for GDP and capital stock follow broadly similar but slightly weaker patterns to gross FDI, are much stronger (slightly positive) for trade, mixed for complexity, and more positive for education and liberal democracy. The results for foreign company registrations are somewhat unexpectedly negative for unemployment and capital stock (though not large or particularly robust), suggest a near zero impact on GDP per capita, modestly positive for economic complexity and liberal institutions and negative for education.

That migration — especially undocumented migration — follows largely pro-development patterns runs counter to narratives suggesting it impedes Malaysia's development. Evidence suggests undocumented migrants support employment in the formal economy by more than FDI, despite FDI being associated with a greater proportional increase in real GDP per capita. However, employment gains may come at the expense of slower wage growth, though this cannot be tested with available data. Overall, migrants appear to have quite large positive effects, consistent with arguments that Malaysia has attained international industrial competitiveness through exploitation of 'migration rent' (Bastide 2021). That undocumented migrants have larger positive effects on capital accumulation may also be evidence of a positive association with FDI, as there is little evidence suggesting that undocumented migrants are themselves large capital accumulators.

There nonetheless appear to be implicit trade-offs in terms of industrial upgrading potential, with documented migrants much stronger drivers. This accords with both the characteristics of migrants and incentives to invest in training (greater under legal certainty). The complexity measures for FDI are interesting, with the finding that gross inflows — not net or new companies — are more strongly associated with complexity improvements suggests it is established investors and the overseas ventures of domestic firms that contribute to upgrading more so than new company establishments. As new investment into developing countries would ideally be increasing in complexity (as productive potential grows with factors including human capital and infrastructure development), it augurs poorly that new establishments appear not to follow this pattern.

The differences between gross and net FDI proxy the differences between the characteristics and volume of FDI in influencing outcomes. The lesser GDP and capital stock contributions of net FDI are understandable, as the loss of domestic firms abroad is netted out. More interesting is that manufacturing specific complexity (PCI) is lowered by domestic firms leaving but overall complexity (ECI) is strengthened, which indicates that staying may support manufacturing upgrading but to a lesser degree than leaving boosts industrial upgrading of overall export production. Net FDI also produces stronger positive effects for education and liberal democracy, though the reasons for this are not obvious.

Policy outcomes

The relationships between FDI policies and outcomes are clearer than for migration policies (Tables 7.15-7.18). Overall FDI policy tightening is associated with lower GDP per capita and economic complexity, while it also appears to reduce trade and the capital stock and increase

the unemployment rate. The effects are quite large, with a one unit policy tightening associated with around 2 percent lower GDP per capita and a 1.8 percent lower ECI score after 15 years. These results are mostly replicated using the other restrictions and investment incentives sub-indicators but with smaller magnitude effects, suggesting a minor incentives increase boosts GDP per capita by about 0.4 percent long-term, while a broader relaxation of restrictions (other subcategory) contributes about 0.6 percent. The corresponding results for ECI are around the 1 percent mark. The only discrepancy between the overall FDI policy and sub-indicators is that other restrictions and investment incentives tightening reduces unemployment, albeit with inconsistency across specifications.

There is an apparent inconsistency between the effect of overall and subcategory migration policies on GDP per capita. Overall migration policy tightening increases GDP per capita (official) by 1.3 percent after 15 years (7.6 percent for a standard deviation change), however lower-skilled and integration policy tightening are associated with lower GDP per capita (both around -0.2 percent), legal entry tightening more substantively reduces GDP (-2.5 percent) and border policies have marginal effects. The unemployment effects of overall policy tightening appear positive under the overall measure but negative (increasing unemployment) under legal entry and integration policy tightening. There is somewhat more statistical support for migration policy tightening being associated with increased economic complexity (overall policies 1.3 percent, lower-skilled 3.6 percent, integration 0.9 percent, border control 0.2 percent), though legal entry is a significant exception (-4.8 percent). Migration policy tightening also appears detrimental to capital deepening, with the results for overall policies strongly negative under fuller specifications and legal entry and integration policies also negative.

The overall FDI results are unsurprising, with policy tightening appearing detrimental to both GDP per capita and industrial upgrading. The removal of constraints on FDI supports the inflow of more capital and more advanced industries or production methods. That FDI incentives were found to support growth and upgrading to a lesser degree than deregulation is consistent with losses from rent-seeking (with some proportion of incentives going to projects that would have occurred anyway). Incentives may also favour labour-intensive investment rather than optimal capital intensity, based on results suggesting incentives but not overall policy liberalisation reduces unemployment. This may in part explain why overall policy liberalisation has a larger effect on growth and industrial upgrading than incentives.

The mixed migration policy results are difficult to interpret. It is difficult to reconcile how overall migration policy tightening can be good for GDP per capita alongside more intuitive results for the individual sub-categories (for which policy liberalisation supported per capita improvements). Legal entry easing being particularly beneficial to income growth and economic complexity suggests benefits to providing migrants access and businesses certainty through formal migration channels. The superior GDP outcomes from undocumented migrants compared to documented accords with policy settings limiting the potential benefits of formality to such an extent that informality is relatively productive (which it should not be under effective migration policies). That migration policy tightening reduces capital deepening is consistent with arguments that migrants directly support capital accumulation.

Table 7.15: Migration and FDI policies and outcomes – per standard deviation

		MLFS/FDIG / BW	MUNL/FDIG / BW	MLFS/FCR/ BW	MUNL/FCR / BW	MLFS/FDI G/ BW/(*)	MUNL/FD IG/ BW/(*)	MLFS/FCR /BW/(*)	MUNL/FC R / BW/(*)	AVG	MAX	MIN	% LR/SR	% COMB
MBW → UNER (CAP)	LR	-6.03				-10.48	-5.54	13.96	-27.62	-6.65	21.77	-34.42	73.33	73.33
MBW → CAP (UNE)	LR	0.46					-0.19	-2.87	-3.11	-0.01	8.08	-3.11	53.33	66.67
MBW → RGDPPCO	LR	6.55	25.70	7.52	3.30					7.60	25.70	-8.45	100.00	100.00
MBW → RGDPPCU	LR	-1.13	25.14	2.99	2.72					3.71	25.14	-24.85	100.00	100.00
MBW → TRADE	LR			15.21						6.37	15.21	-0.30	33.33	55.56
MBW → ECI	LR	1.49	3.32	2.06	2.76					8.06	30.11	1.49	100.00	100.00
MBW → PCI	LR	1.31	5.90	10.19	2.88					6.80	14.60	1.31	66.67	77.78
FBW → UNER (CAP)	LR		24.28				48.06	-48.37		5.61	48.06	-48.37	31.25	31.25
FBW → CAP (UNE)	LR						-5.34	8.48		-0.08	8.48	-5.34	37.50	62.50
FBW → RGDPPCO	LR	-16.08	-11.49	-19.52	-36.78					-20.31	-11.49	-36.78	100.00	100.00
FBW → RGDPPCU	LR	-14.50	-7.32	-5.20	-31.81					-14.34	-5.20	-31.81	100.00	100.00
FBW → TRADE	LR		-0.44	-8.16						-23.41	-0.44	-62.06	50.00	70.00
FBW → ECI	LR	-4.70	-7.53	-4.69	-3.04					-18.06	-3.04	-42.26	90.00	100.00
FBW → PCI	LR	-4.91								-12.00	-3.86	-23.68	50.00	60.00

Notes: As per Table 7.1.

Table 7.16: Migration and FDI policies and outcomes – per unit policy shock

		MLFS/FDIG / BW	MUNL/FDIG / BW	MLFS/FCR/ BW	MUNL/FCR / BW	MLFS/FDI G/ BW/(*)	MUNL/FD IG/ BW/(*)	MLFS/FCR /BW/(*)	MUNL/FC R / BW/(*)	AVG	MAX	MIN	% LR/SR	% COMB
MBW → UNER (CAP)	LR	-1.00				-1.73	-0.92	2.31	-4.57	-1.10	3.60	-5.70	73.33	73.33
MBW → CAP (UNE)	LR	0.08					-0.03	-0.47	-0.52	0.00	1.34	-0.52	53.33	66.67
MBW → RGDPPCO	LR	1.08	4.25	1.24	0.55					1.26	4.25	-1.40	100.00	100.00
MBW → RGDPPCU	LR	-0.19	4.16	0.49	0.45					0.61	4.16	-4.11	100.00	100.00
MBW → TRADE	LR			2.52						1.05	2.52	-0.05	33.33	55.56
MBW → ECI	LR	0.25	0.55	0.34	0.46					1.33	4.98	0.25	100.00	100.00
MBW → PCI	LR	0.22	0.98	1.69	0.48					1.12	2.42	0.22	66.67	77.78
FBW → UNER (CAP)	LR		2.45				4.85	-4.88		0.57	4.85	-4.88	31.25	31.25
FBW → CAP (UNE)	LR						-0.54	0.86		-0.01	0.86	-0.54	37.50	62.50
FBW → RGDPPCO	LR	-1.62	-1.16	-1.97	-3.71					-2.05	-1.16	-3.71	100.00	100.00
FBW → RGDPPCU	LR	-1.46	-0.74	-0.52	-3.21					-1.45	-0.52	-3.21	100.00	100.00
FBW → TRADE	LR		-0.04	-0.82						-2.36	-0.04	-6.26	50.00	70.00
FBW → ECI	LR	-0.47	-0.76	-0.47	-0.31					-1.82	-0.31	-4.26	90.00	100.00
FBW → PCI	LR	-0.50								-1.21	-0.39	-2.39	50.00	60.00

Notes: As per Table 7.1.

Table 7.17: Migration and FDI policies (subcategories) and outcomes – per standard deviation

		AVG	MAX	MIN	% LR/SR	% COMB			AVG	MAX	MIN	% LR/SR	% COMB
MBW2 → UNE	LR	-25.17	-25.17	-25.17	33.33	33.33	MPILE → UNE	LR	1.75	31.95	-17.08	100.00	100.00
MBW2 → CAP	LR	N/R	N/R	N/R	0.00	0.00	MPILE → CAP	LR	-7.08	-1.12	-17.20	100.00	100.00
MBW2 → RGDPPCO	LR	-1.50	4.41	-11.52	100.00	100.00	MPILE → RGDPPCO	LR	-10.37	-1.19	-19.56	66.67	66.67
MBW2 → RGDPPCU	LR	-4.69	1.85	-15.89	100.00	100.00	MPILE → RGDPPCU	LR	-13.66	-6.37	-20.95	66.67	66.67
MBW2 → TRADE	SR	2.10	2.30	1.89	66.67	66.67	MPILE → TRADE	LR	-16.62	1.48	-34.72	66.67	66.67
MBW2 → ECI	LR	26.03	60.56	5.55	100.00	100.00	MPILE → ECI	LR	-19.76	-19.14	-20.39	66.67	66.67
MBW2 → PCI	LR	86.64	86.64	86.64	33.33	33.33	MPILE → PCI	LR	-8.88	0.69	-25.70	100.00	100.00
MPIIG → UNER	LR	54.38	54.38	54.38	33.33	33.33	MPIBC → UNE	LR	N/R	N/R	N/R	0.00	0.00
MPIIG → CAP	LR	-5.67	-5.67	-5.67	33.33	66.67	MPIBC → CAP	SR	0.27	0.54	-0.01	66.67	66.67
MPIIG → RGDPPCO	LR	-2.50	2.11	-8.64	100.00	100.00	MPIBC → RGDPPCO	LR	0.32	1.37	-0.73	66.67	66.67
MPIIG → RGDPPCU	LR	-4.03	4.77	-15.87	100.00	100.00	MPIBC → RGDPPCU	LR	-1.72	-1.72	-1.72	33.33	33.33
MPIIG → TRADE	SR	2.14	2.30	1.99	66.67	66.67	MPIBC → TRADE	LR	N/R	N/R	N/R	0.00	0.00
MPIIG → ECI	LR	11.13	14.42	9.18	100.00	100.00	MPIBC → ECI	LR	2.31	15.48	-10.85	66.67	66.67
MPIIG → PCI	SR	5.32	5.32	5.32	50.00	33.33	MPIBC → PCI	LR	100.55	100.55	100.55	33.33	66.67
FDIPIN → UNE	LR	-50.59	8.14	-109.32	50.00	50.00	FDIPII → UNE	LR	-26.88	7.66	-56.53	75.00	75.00
FDIPIN → CAP	LR	12.73	12.73	12.73	25.00	25.00	FDIPII → CAP	LR	-1.59	0.18	-3.36	50.00	50.00
FDIPIN → RGDPPCO	LR	-13.51	-10.12	-16.62	100.00	100.00	FDIPII → RGDPPCO	LR	-5.10	2.64	-12.22	100.00	100.00
FDIPIN → RGDPPCU	LR	-15.25	0.09	-32.51	100.00	100.00	FDIPII → RGDPPCU	LR	-3.46	4.04	-10.46	100.00	100.00
FDIPIN → TRADE	LR	-14.23	-12.39	-16.07	50.00	50.00	FDIPII → TRADE	LR	-29.54	-26.91	-32.18	50.00	50.00
FDIPIN → ECI	LR	-24.09	-8.12	-39.89	100.00	100.00	FDIPII → ECI	LR	-12.26	-7.53	-16.32	100.00	100.00
FDIPIN → PCI	LR	-64.12	-64.12	-64.12	25.00	25.00	FDIPII → PCI	SR	-17.85	-17.85	-17.85	25.00	25.00

Notes: As per Table 7.1.

Table 7.18: Migration and FDI policies (subcategories) and outcomes – per unit policy shock

		AVG	MAX	MIN	% LR/SR	% COMB			AVG	MAX	MIN	% LR/SR	% COMB
MBW2 → UNE	LR	-3.46	-3.46	-3.46	33.33	33.33	MPILE → UNE	LR	0.43	7.79	-4.17	100.00	100.00
MBW2 → CAP	LR	N/R	N/R	N/R	0.00	0.00	MPILE → CAP	LR	-1.73	-0.27	-4.19	100.00	100.00
MBW2 → RGDPPCO	LR	-0.21	0.61	-1.59	100.00	100.00	MPILE → RGDPPCO	LR	-2.53	-0.29	-4.77	66.67	66.67
MBW2 → RGDPPCU	LR	-0.65	0.25	-2.19	100.00	100.00	MPILE → RGDPPCU	LR	-3.33	-1.55	-5.11	66.67	66.67
MBW2 → TRADE	SR	0.29	0.32	0.26	66.67	66.67	MPILE → TRADE	LR	-4.05	0.36	-8.47	66.67	66.67
MBW2 → ECI	LR	3.58	8.33	0.76	100.00	100.00	MPILE → ECI	LR	-4.82	-4.67	-4.97	66.67	66.67
MBW2 → PCI	LR	11.92	11.92	11.92	33.33	33.33	MPILE → PCI	LR	-2.17	0.17	-6.27	100.00	100.00
MPIIG → UNE	LR	4.45	4.45	4.45	33.33	33.33	MPIBC → UNE	LR	N/R	N/R	N/R	0.00	0.00
MPIIG → CAP	LR	-0.46	-0.46	-0.46	33.33	66.67	MPIBC → CAP	SR	0.02	0.04	0.00	66.67	66.67
MPIIG → RGDPPCO	LR	-0.20	0.17	-0.71	100.00	100.00	MPIBC → RGDPPCO	LR	0.03	0.11	-0.06	66.67	66.67
MPIIG → RGDPPCU	LR	-0.33	0.39	-1.30	100.00	100.00	MPIBC → RGDPPCU	LR	-0.14	-0.14	-0.14	33.33	33.33
MPIIG → TRADE	SR	0.18	0.19	0.16	66.67	66.67	MPIBC → TRADE	LR	N/R	N/R	N/R	0.00	0.00
MPIIG → ECI	LR	0.91	1.18	0.75	100.00	100.00	MPIBC → ECI	LR	0.18	1.22	-0.86	66.67	66.67
MPIIG → PCI	SR	0.43	0.43	0.43	50.00	33.33	MPIBC → PCI	LR	7.95	7.95	7.95	33.33	66.67
FDIPIN → UNE	LR	-2.12	0.34	-4.57	50.00	50.00	FDIPII → UNE	LR	-1.97	0.56	-4.14	75.00	75.00
FDIPIN → CAP	LR	0.53	0.53	0.53	25.00	25.00	FDIPII → CAP	LR	-0.12	0.01	-0.25	50.00	50.00
FDIPIN → RGDPPCO	LR	-0.57	-0.42	-0.69	100.00	100.00	FDIPII → RGDPPCO	LR	-0.37	0.19	-0.89	100.00	100.00
FDIPIN → RGDPPCU	LR	-0.64	0.00	-1.36	100.00	100.00	FDIPII → RGDPPCU	LR	-0.25	0.30	-0.77	100.00	100.00
FDIPIN → TRADE	LR	-0.59	-0.52	-0.67	50.00	50.00	FDIPII → TRADE	LR	-2.16	-1.97	-2.36	50.00	50.00
FDIPIN → ECI	LR	-1.01	-0.34	-1.67	100.00	100.00	FDIPII → ECI	LR	-0.90	-0.55	-1.19	100.00	100.00
FDIPIN → PCI	LR	-2.68	-2.68	-2.68	25.00	25.00	FDIPII → PCI	SR	-1.31	-1.31	-1.31	25.00	25.00

Notes: As per Table 7.1.

That migration policy tightening other than legal entry supports industrial upgrading is an interesting finding consistent with arguments that a poor alignment between policy settings and incentives is favouring low quality migrants. This conjecture is supported by stronger results for the unskilled policy measure than the overall, with tightening to improve migrant selection being potentially beneficial. Combined with the legal entry results however, there is a need to concurrently raise incentives for formal entry by relatively skilled and self-selecting unskilled migrants. That is, the benefits to formality need to increase for selectivity to succeed and promote even more economically beneficial migration.

Opposition pressure

The opposition pressure indicators appear to be associated with long-term effects on migration, FDI and outcomes variables more so than the reverse (Tables 7.15 and 7.16). Advocacy towards FDI policy liberalisation appears to increase both types of migrants (documented by over six times more) but overall opposition pressure on FDI policies reduces migration. Calls for both integration and overall migration policy liberalisation — both historically dominated by criticisms of policies involving racial or religious discrimination — increase both gross and net FDI but decrease company registrations. In respect of outcomes, pressures on FDI policy (especially calls for liberalisation) are associated with reduced unemployment longer-term but also reduced GDP per capita. Calls for overall migration policy liberalisation increase GDP per capita but also unemployment, while calls for integration policy liberalisation reduce unemployment and increase GDP per capita.

Evidence of reverse relationships is patchy, with the most convincing results that increased net FDI and company registrations prompt opposition calls for migration policy liberalisation, whereas economic variables exert a somewhat countercyclical influence on opposition pressure (high unemployment and lower GDP per capita are associated with liberalisation calls). The results for the FDI opposition pressure indicators are less consistent.

The arguments underpinning these indicators is that heightened opposition pressure influences government to alter discretionary policies. They represent proxy measures for policy liberalisation or tightening beyond statutory settings. Interpreted thusly, the results provide further evidence that FDI policy tightening reduces migration and that migration policy tightening (other than border control) reduces FDI inflows. The results for company registrations and GDP per capita however are inconsistent with earlier findings, which may indicate differential effects. For example, new investors may be unnerved by heightened debate around discriminatory policies in a way that seasoned investors are not, with government policy appeasement less influential for them. Likewise calls to ease FDI policy settings are typically associated with periods of particularly poor FDI — during a confidence dip or economic downturn — so might be picking up a shock that detracts from longer term economic development. That calls for migration policy liberalisation improve growth is consistent with earlier reported findings for ‘on paper’ policies. The reverse relationship is of lesser interest here, though it perhaps demonstrates the greater lobbying weight of foreign investors relative to migrants. Periods of high unemployment and lower GDP growth are also associated with heightened attention to ethnic disparities, which more directly explains calls for liberalisation or against new discriminatory measures.

Table 7.19: Opposition pressure, migration and FDI flow and outcomes – per standard deviation

		AVG	MAX	MIN	% LR/SR	% COMB			AVG	MAX	MIN	% LR/SR	% COMB
LKSFDIG → MLFS	LR	-16.87	13.02	-51.75	88.89	88.89	MLFS → LKSFDIG	SR	26.46	47.13	5.78	22.22	22.22
LKSFDIN → MLFS	LR	22.62	130.66	-51.12	100.00	100.00	MLFS → LKSFDIN	LR	54.62	102.92	-6.60	44.44	44.44
LKSFDIG → MUNL	LR	-1.72	34.03	-21.44	100.00	100.00	MUNL → LKSFDIG	LR	6.82	30.48	-16.84	22.22	22.22
LKSFDIN → MUNL	LR	3.46	18.30	-18.72	100.00	100.00	MUNL → LKSFDIN	LR	-11.88	-11.88	-11.88	11.11	33.33
LKSMIIG → FDIG	LR	27.77	88.42	1.35	100.00	100.00	FDIG → LKSMIIG	SR	-0.16	21.85	-13.48	57.14	57.14
LKSMIGO → FDIG	LR	23.52	73.16	-19.72	100.00	100.00	FDIG → LKSMIGO	SR	-17.71	-17.71	-17.71	20.00	14.29
LKSMIIG → FDIN	LR	20.78	70.83	0.12	57.14	57.14	FDIN → LKSMIIG	LR	44.18	154.05	-14.80	85.71	85.71
LKSMIGO → FDIN	LR	17.98	52.07	1.81	57.14	71.43	FDIN → LKSMIGO	LR	20.59	192.43	-62.29	100.00	100.00
LKSMIIG → FCR	LR	-3.82	7.42	-15.71	100.00	100.00	FCR → LKSMIIG	LR	57.93	133.04	-3.91	42.86	71.43
LKSMIGO → FCR	LR	-3.48	8.04	-13.56	100.00	100.00	FCR → LKSMIGO	LR	53.41	135.62	-0.90	42.86	71.43
LKSFDIG → UNE	LR	-3.34	10.21	-37.63	91.67	91.67	UNE → LKSFDIG	LR	6.61	25.98	-22.42	41.67	41.67
LKSFDIN → UNE	LR	-14.46	7.86	-72.01	91.67	100.00	UNE → LKSFDIN	LR	-4.48	5.73	-16.32	33.33	41.67
LKSFDIG → RGDPPCO	LR	-1.82	16.59	-18.69	100.00	100.00	RGDPPCO → LKSFDIG	SR	-1.17	-1.17	-1.17	10.00	8.33
LKSFDIN → RGDPPCO	LR	-1.87	11.25	-28.65	91.67	91.67	RGDPPCO → LKSFDIN	LR	-30.54	18.84	-83.50	50.00	66.67
LKSMIIG → UNE	LR	-5.15	38.51	-41.34	100.00	100.00	UNE → LKSMIIG	SR	22.34	36.42	9.93	54.55	75.00
LKSMIGO → UNE	LR	15.72	92.27	-15.81	100.00	100.00	UNE → LKSMIGO	SR	17.83	28.15	11.83	37.50	50.00
LKSMIIG → RGDPPCO	LR	7.94	16.31	2.49	83.33	100.00	RGDPPCO → LKSMIIG	SR	-52.38	-0.98	-104.54	63.64	58.33
LKSMIGO → RGDPPCO	LR	6.04	21.55	-3.18	75.00	100.00	RGDPPCO → LKSMIGO	SR	-61.81	-22.58	-108.48	54.55	58.33

Notes: As per Table 7.1 and additional legend: LKSFDIG (FDI indicator gross count – no directionality); LKSFDIN (FDI indicator net count – directionality, positive equals liberalising); LKSMIIG (migration integration score – directionality; positive equals liberalising); and LKSMIGO (overall migration indicator score – directionality; positive equals liberalising).

Table 7.20: Opposition pressure, migration and FDI flow and outcomes – per unit shock

		AVG	MAX	MIN	% LR/SR	% COMB			AVG	MAX	MIN	% LR/SR	% COMB
LKSFDIG → MLFS	LR	-6.72	5.19	-20.62	88.89	88.89	MLFS → LKSFDIG	SR	36.39	64.83	7.95	22.22	22.22
LKSFDIN → MLFS	LR	7.32	42.26	-16.53	100.00	100.00	MLFS → LKSFDIN	LR	75.13	141.57	-9.08	44.44	44.44
LKSFDIG → MUNL	LR	-0.69	13.56	-8.54	100.00	100.00	MUNL → LKSFDIG	LR	5.81	25.96	-14.34	22.22	22.22
LKSFDIN → MUNL	LR	1.12	5.92	-6.06	100.00	100.00	MUNL → LKSFDIN	LR	-10.12	-10.12	-10.12	11.11	33.33
LKSMIIG → FDIG	LR	2.69	8.56	0.13	100.00	100.00	FDIG → LKSMIIG	SR	-0.04	6.01	-3.71	57.14	57.14
LKSMIGO → FDIG	LR	2.05	6.36	-1.72	100.00	100.00	FDIG → LKSMIGO	SR	-4.87	-4.87	-4.87	20.00	14.29
LKSMIIG → FDIN	LR	2.01	6.85	0.01	57.14	57.14	FDIN → LKSMIIG	LR	21.44	74.75	-7.18	85.71	85.71
LKSMIGO → FDIN	LR	1.56	4.53	0.16	57.14	71.43	FDIN → LKSMIGO	LR	9.99	93.37	-30.22	100.00	100.00
LKSMIIG → FCR	LR	-0.37	0.72	-1.52	100.00	100.00	FCR → LKSMIIG	LR	2.84	6.51	-0.19	42.86	71.43
LKSMIGO → FCR	LR	-0.30	0.70	-1.18	100.00	100.00	FCR → LKSMIGO	LR	2.61	6.64	-0.04	42.86	71.43
LKSFDIG → UNE	LR	-1.33	4.07	-14.99	91.67	91.67	UNE → LKSFDIG	LR	4.47	17.59	-15.18	41.67	41.67
LKSFDIN → UNE	LR	-4.68	2.54	-23.29	91.67	100.00	UNE → LKSFDIN	LR	-3.03	3.88	-11.05	33.33	41.67
LKSFDIG → RGDPPCO	LR	-0.72	6.61	-7.45	100.00	100.00	RGDPPCO → LKSFDIG	SR	0.00	0.00	0.00	10.00	8.33
LKSFDIN → RGDPPCO	LR	-0.61	3.64	-9.26	91.67	91.67	RGDPPCO → LKSFDIN	LR	0.00	0.00	-0.01	50.00	66.67
LKSMIIG → UNE	LR	-0.50	3.73	-4.00	100.00	100.00	UNE → LKSMIIG	SR	15.12	24.66	6.72	54.55	75.00
LKSMIGO → UNE	LR	1.37	8.03	-1.37	100.00	100.00	UNE → LKSMIGO	SR	12.07	19.06	8.01	37.50	50.00
LKSMIIG → RGDPPCO	LR	0.77	1.58	0.24	83.33	100.00	RGDPPCO → LKSMIIG	SR	-0.01	0.00	-0.02	63.64	58.33
LKSMIGO → RGDPPCO	LR	0.53	1.87	-0.28	75.00	100.00	RGDPPCO → LKSMIGO	SR	-0.01	0.00	-0.02	54.55	58.33

Notes: As per Table 7.15.

Conclusion

This chapter extends the preceding analysis of policy influence on factor flows and economic outcomes in Australia to a dissimilar context in Malaysia, offering a comparative assessment to test the external validity of earlier findings and to explore additional factors unique to Malaysia. It additionally demonstrates the viability of extending the development and deployment of quantitative policy indicators to a less-studied and less-developed country. The overarching empirical findings are consistent with previous chapters, highlighting the positive relationship between migration and FDI in supporting economic development, including that for Malaysia it was FDI that drove migration more so than the reverse. Migration and FDI policymaking in Malaysia exhibit clearer relationships than in Australia, evidenced by the positive association between legal entry and incentives policies and also how border control tightening appears to improve investors' perceptions about the quality of governance.

Among the novel findings, the significant and positive contribution of undocumented migrants to economic outcomes stands out, while cautioning that informality appears less conducive to the improvement of complexity. This finding should not be interpreted as advancing the merits of undocumented migrants but an indictment against migration policies that produce formal migrants whose outcomes are less economically beneficial (for example, by strictly limiting how long migrants can stay, the sectors they can work in and by binding them to an employer sponsor), to the detriment of FDI attraction (especially from new, more complex investors). Unlike for Australia, gaining policy control requires a coordinated uplift in border control tightening together with legal entry and integration policy easing to increase the relative benefits of formality to both migrants and investors.

Malaysia's experience is perhaps of greatest value to emerging/developing countries in demonstrating that concurrent inflows of labour and direct foreign investment are complementary in supporting development despite a challenging environment for migrant selection policies and substantial informal migration.

Chapter 8

Leveraging capital inflow and migration for development in the Asia-Pacific

Synopsis: This chapter applies lessons from the preceding chapters to the Asia-Pacific policy context. It details the contribution of international factor flows to regional integration and development before discussing policy reform opportunities. Discussion of policy gaps is aided by a point-in-time policy snapshot for 23 countries summarising and comparing over 200 individual policy elements. There are significant opportunities both nationally and regionally to address policy constraints on harnessing migration and FDI inflows for economic development, including reforms targeting: visa rules and integration policies that limit opportunities and incentives for investors and migrants to contribute to the host economy; short-term, defensive objectives (such as protecting local jobs) that distort markets and result in insufficient basic protections and rights for investors and migrants; undocumented and formal migration favouring incumbent firms — deterring entry of more sophisticated FDI; and the inadequacy of policies for engaging the diaspora and channelling their capital and remittances into productive investments, as well as supporting emigrant return and reintegration.

Introduction

The contribution of international factor movements to deepening economic interlinkages, cooperation and the achievement of development goals is usually analysed separately for investment and migration. The conceptual and empirical chapters of the thesis identify several arguments that suggest why independent consideration of factor flows, associated policies and development implications can lead to sub-optimal outcomes. These include ignoring the effect of factor availability on returns, that factor abundance may mask scarcity of required inputs including skilled labour, that the experience of one factor can help the other navigate institutional, informational and cultural barriers in the host country, and the inherent inseparability of migrants and investors (migrants bring capital and investors are themselves migrants). Rather than seeing capital and people movements as each making positive individual and complementary contributions to development, policy orthodoxy tends to favour FDI as a development driver and pursues relatively accommodative settings for capital flows. Policy biases favouring investment over migration prevail in countries across the development spectrum despite differing economic opportunities and needs by income level. And inattention to interactions between migrants, investors and associated policies creates contradictions, including labour-related barriers to FDI and contradictory short- and long-term factor flow policy objectives.

As Chapters 1 and 2 argue, economic theory and evidence provides an inadequate basis for treating FDI as inherently superior to migration as an economic development driver. Developing countries are relatively capital poor but they also lack the productivity- and technology-enhancing knowledge and skills that are embodied in potential migrants. Foreign businesses and migrants can both add or subtract to host economies — creating or taking local jobs, contributing or competing for resources, pioneering new or sustaining declining

industries, and supporting local communities or facing integration challenges that can be socially and politically disruptive. Outcomes ultimately depend on the characteristics of the factors and the host country environment, including constraints on activity resulting from policies or perceptions both favourable and unfavourable.

Chapter 3 explains and provides evidence on how seminal international economic and development frameworks overlook factor flow considerations around middle-income. Middle-income countries engage economically with more and less developed countries and thus face the factor flow choices of both countries in traditional two-country representations. Concurrent net imports of both FDI and migrants support development, with dual factor importers around middle-income showing superior outcomes. Investments in human capital and institutional deepening are both well-established development drivers and leading determinants of dual factor inflows, reinforcing a positive relationship between concurrent FDI and migrant inflows and development. Excessively restricting migration while seeking to attract FDI usually necessitates costly FDI incentives. Incentives drain government coffers whereas equivalent migration policy relaxation could be revenue increasing. Effective immigration control systems that support foreign investment and economic activity generally, alongside a non-burdensome policy environment supportive of bidirectional FDI flows, appears a superior development approach.

The Malaysian case study evidence in Chapters 4 and 7 exemplifies this. Factor flows supported Malaysia's development success in underappreciated ways, despite limited success with migrant selection policies and informality. Migration contributed positively to economic development despite suboptimal policy settings, but could have been much greater under policies that better align incentives for migrants, businesses and officials. Flourishing undocumented migration has delivered a short-term economic windfall compensating for restrictive formal migration channels, but it favours low-complexity incumbent industries, deters employee upskilling, and is a barrier to new foreign investors and industrial upgrading generally. FDI has thus flowed more voluminously into less complex industries sustained by a ready supply of low-skilled migrants. Combined with diminishing returns to education and minimal institutional reform, current policy settings appear askew from a long-term development perspective.

In respect of policies, FDI policy liberalisation in Malaysia increased long-term migration, illustrating the linkages between factor flows and policies that require coordinated policymaking. Part of this may have been deliberate as authorities keen to attract FDI during periods of liberalisation relaxed constraints on formal migration, but it also likely reflects the consequences of increased investment opportunities on migrant demand. The influence of migration policy on FDI is mixed, with border control and overall policy tightening increasing FDI over the long-term but legal entry and integration policy tightening decreasing FDI. Migration policies thus contribute to overall confidence in Malaysia's governance and investment environment stability, alongside expatriate entry and liveability considerations affecting investment decisions.

The Australian case study findings in Chapters 5 and 6 likewise demonstrate a positive relationship between migration and FDI inflows but also some trade-offs for economic outcomes. Large inflows of both migrants and FDI have boosted real incomes and been accommodated without major political or societal dislocation. Factor flows became more mutually reinforcing under major policy shifts that increased the skills, diversity and

temporariness of the migrant intake. However, the economic windfall from reorientation of the intake has been mixed and not commensurate with that expected from the increase in FDI. Two important lessons from this are that permanent migration delivers larger economic benefits that are foregone under increasingly popular temporary migration schemes, and migrant skills targeting is a challenging but superior objective to skills maximisation — as advanced economies become scarce in and need less-skilled workers as essential inputs to more skill-intensive activities.

Australia too has done well despite some policies inhibiting concurrent factor inflows. Policy formulation is almost completely independently directed towards differing objectives, with FDI benefiting from a longer-term orientation and relative stability and migration policies more susceptible to shocks (usually from cyclical unemployment). FDI policy liberalisation is associated with increased migration as it was in Malaysia, while migration policy tightening also increased FDI but for seemingly different reasons. Australia has much more secure borders, with a strong competition effect (that is, migration policies favour domestic firms) most likely explaining why migration policy relaxation has not supported FDI. That is, migrants are directed to domestic firms and longstanding foreign investors whereas foreign investment policies encourage new investors to create local not expatriate jobs. Foreign investment is also, of course, typically capital-intensive, in industries whose competitiveness may be undermined by larger labour inflows. Visa policies emphasising employer sponsorship over entrepreneurial migrants may also contradict ambitions to attract capital.

With these findings in mind, the next section explores integration across the Asia-Pacific.

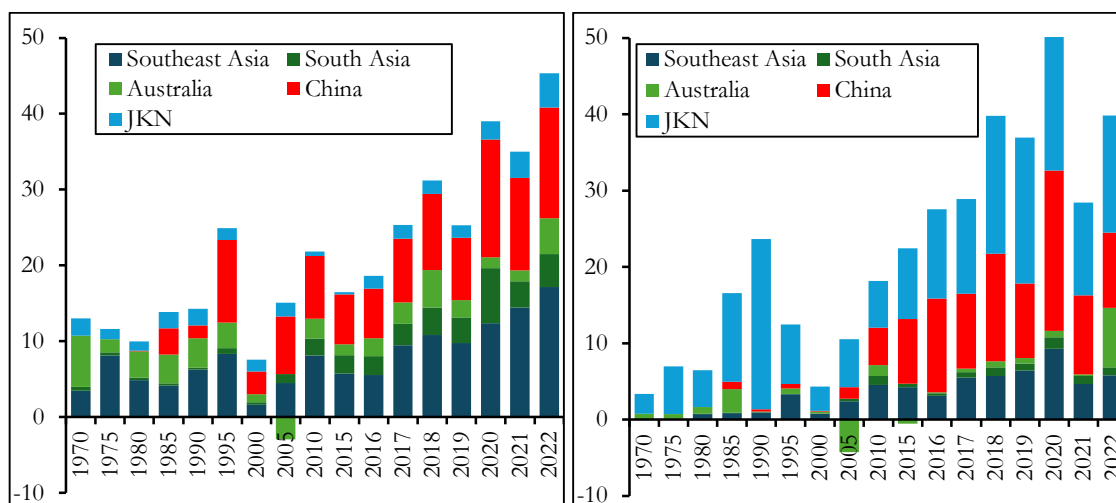
Regional FDI and migration

The 23 countries analysed here represent a significant and diverse mix of experiences with factor flows. In 2022 they commanded 45 percent of global FDI inflows and almost 40 percent of outflows, with inflows at a new historical peak and outflows at their second highest mark after 2020 (Figure 8.1). Southeast Asia and China receive much larger inflows than South Asia despite pre-pandemic gains. Japan has traditionally been the dominant outwards investor but has been joined in recent years by South Korea, China and Singapore in particular.

Singapore stands out as the largest proportionate bidirectional investor, with gross inflows exceeding 30 percent of GDP and total FDI stock exceeding 540 percent of GDP in 2022 (Figure 8.2). Despite being a significant outwards investor, Singapore's net FDI inflows and stock exceed all remaining countries. Cambodia, Maldives, Laos and Viet Nam were the next largest recipients during the 2010s, while Australia and Malaysia each averaged a little over 3 percent of GDP during that decade. Among the lowest recipients are Afghanistan, Nepal, Pakistan and Brunei. China's substantial share of global FDI inflows is nonetheless small relative to its large economy.

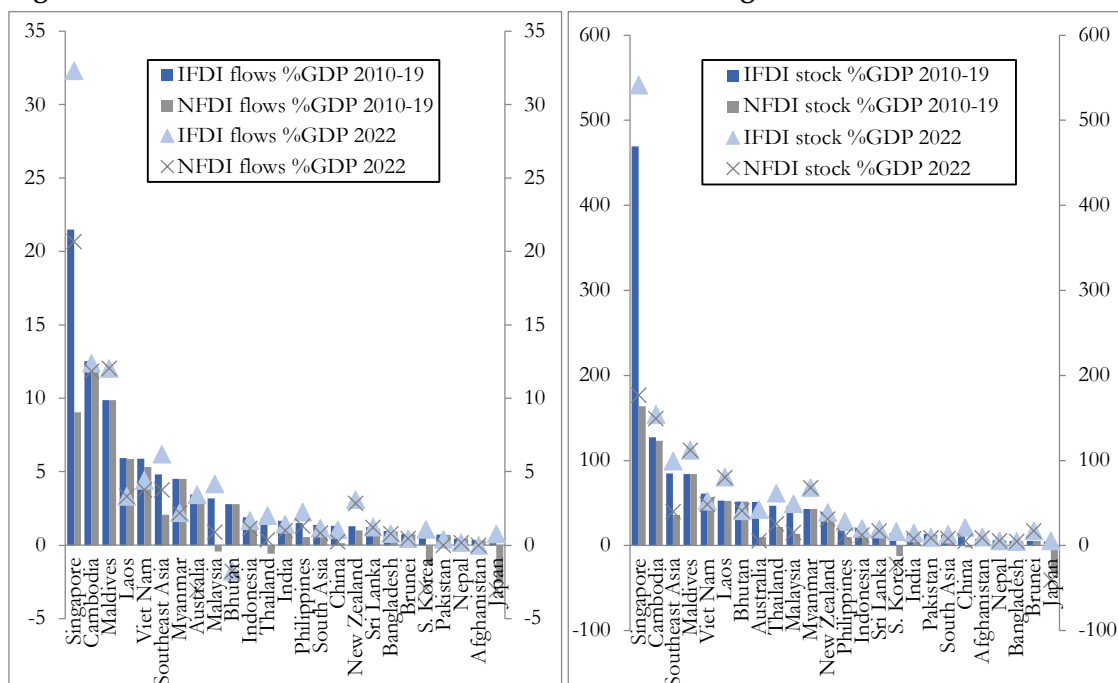
The share of FDI sourced from within and outside of the region varies greatly, with six countries (Cambodia, Nepal, New Zealand, Indonesia, Thailand and Sri Lanka) receiving a majority from within the region (Figure 8.3). The likes of China, India, Japan, Australia and Singapore receive a sizeable majority of their inflows from other countries, predominantly from North America and Europe.

Figure 8.1: Share of global FDI inflows (left) and outflows (right) 1970-2022



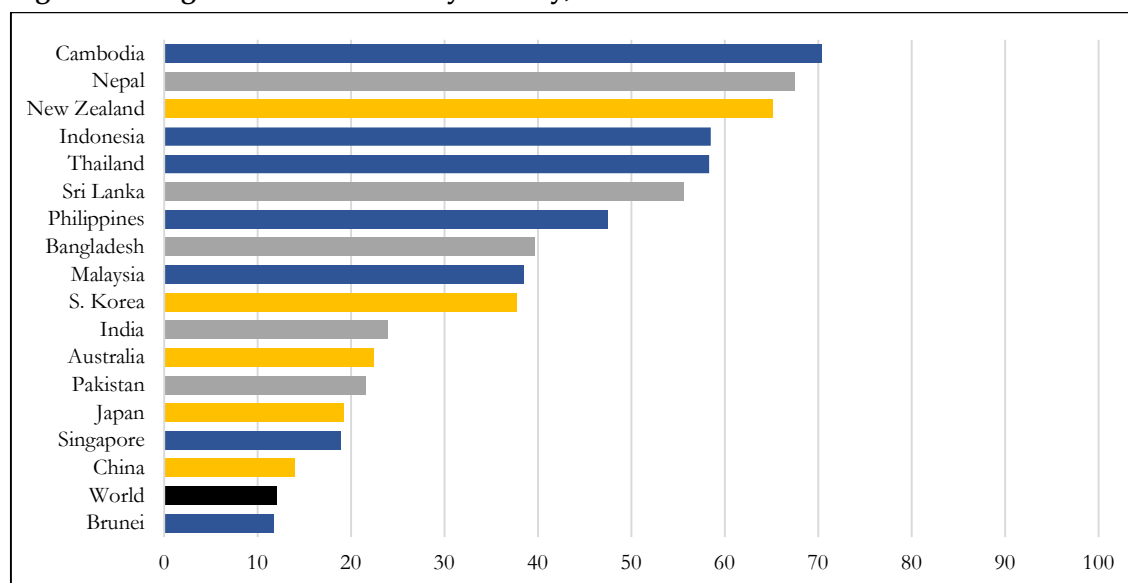
Sources: UNCTAD 2023. Note the chart break around 2015 and JKN = Japan, South Korea and New Zealand.

Figure 8.2: Inwards and net FDI inflows (left) and stock (right) as %GDP



Sources: UNCTAD 2023.

Figure 8.3: Regional share of FDI by country, 2022



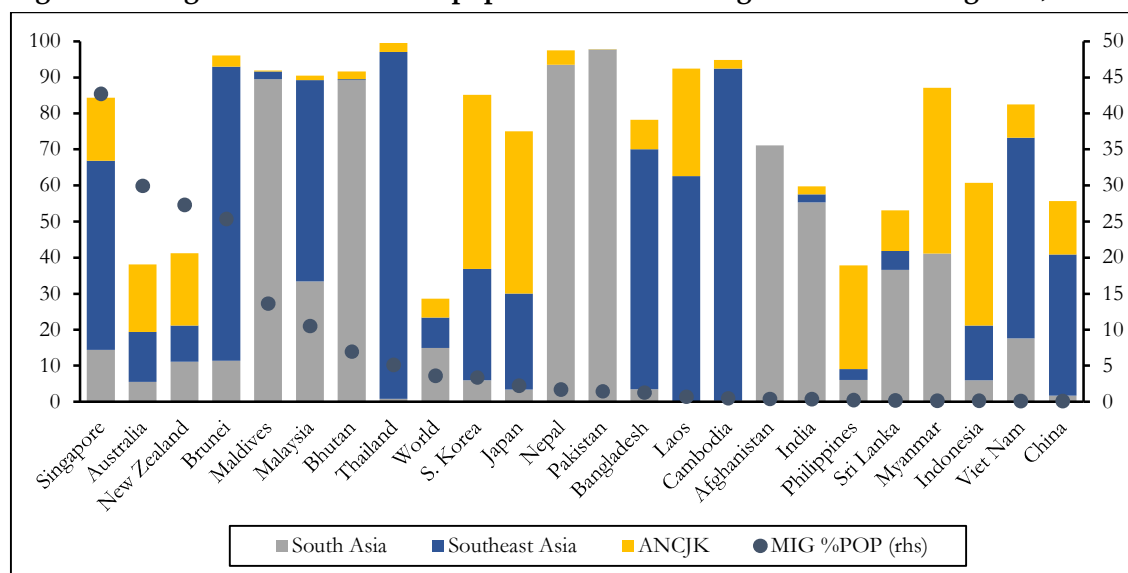
Source: IMF 2023. No recipient country data is available for Afghanistan, Myanmar, Laos and Maldives.

Other than a few notable exceptions, the migrant stock is significantly more regionally sourced. Indeed, the most outward looking countries (Philippines, Australia and New Zealand) still have at least 37 percent of migrants from within the region, while more than half the countries' migrant population is over 80 percent from within the region (nine are over 90 percent; Figure 8.4). Most overseas populations come from within subregions (e.g. South Asia), with only a few countries having more migrants from elsewhere (Bangladesh, Myanmar and China are neighbours sharing distinct corridors, while Indonesia and the Philippines are large, geographically isolated migrant exporters with wider links). The countries with broader links have among the lowest migrant share of population, not more diverse arrangements. Eight countries have above world average migrant population shares, with Singapore, Australia, New Zealand and Brunei all having large migrant stocks while the Maldives, Malaysia, Bhutan and Thailand also have significant populations.

The region has several globally significant migration corridors, with the largest 20 totalling over 20 million¹⁹ migrant residents (Table 8.1). Some of the largest traditional pairings have shrunk over the past three decades amid economic, political and demographic changes, including Bangladesh-India, India-Pakistan, Afghanistan-Pakistan and South Korea-Japan. Southeast Asian corridors have grown tremendously, at a cumulative annual rate exceeding five percent. Thailand has three major corridors with neighbours Myanmar, Laos and Cambodia while Malaysia (officially) hosts around 1.2 million Indonesians and a similar number of Malaysians live in Singapore. Reflecting its openness to migration, Australia is the major recipient in four smaller regional corridors. Large emigration countries like India, China, Indonesia, Viet Nam and the Philippines feature in the top 20 but are known for having more geographically dispersed populations outside the region (in the United States, Middle East and Europe).

¹⁹ According to official population statistics, with many of these corridors involving substantial (in some cases larger) undocumented migrant populations.

Figure 8.4: Migration share of total population and intraregional share of migrants, 2020



Source: UN Population Division 2021.

Examining flows jointly, there is a diversity of experience commensurate with development and policy differences. The vast majority of observations occupy the upper left quadrant of Figure 8.5, representing countries that received net FDI inflows and net people outflows. Among the notable exceptions primarily occupying the dual factor inflows quadrant (upper right) are Singapore, Australia, New Zealand, Maldives, Malaysia, Brunei and Thailand — among the most developed of the 23 countries (Figure 8.6 provides current GDP per capita). Contrastingly, East Asia’s traditionally relatively insular approach to people movement and large populations means its countries rarely deviate from the vertical axis.

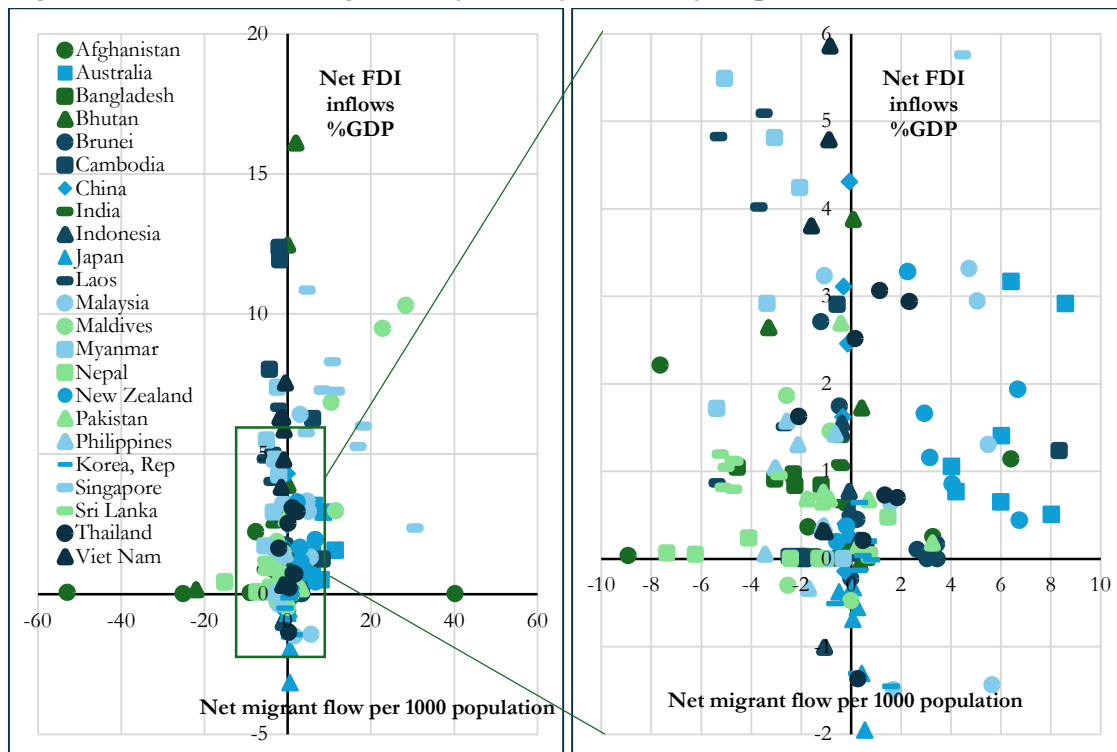
For a handful of countries, inward remittances represent a much larger inflow than FDI (Figure 8.6). Only Vietnam and Cambodia receive significant inflows of both, indicating greater potential to leverage their diaspora for investment. Among South and Southeast Asian countries excluding Singapore, there is a slight negative correlation between remittances and inwards FDI of -0.28. This may reflect the trade-off inherent in the complementarity thesis between an exodus of relatively capable workers and challenges attracting FDI, including related detractions in host country human capital and institutions. Assessing this claim and the merits of remittances as an alternative development model is beyond the scope of this thesis, with the analysis here highlighting FDI as an important counterfactual for consideration by remittances scholars and advocates.

Table 8.1: Largest 20 intraregional migration corridors 1990-2020

Corridor	1990	1995	2000	2005	2010	2015	2020	CAGR
Bangladesh-India	4388	4145	3902	3327	2888	2695	2522	-1.83%
India-Pakistan	4740	4003	3454	3127	2900	2600	2430	-2.20%
Myanmar-Thailand	230	437	734	1182	1659	1761	1848	7.20%
Afghanistan-Pakistan	3383	1309	2096	1203	2039	1979	1701	-2.27%
Indonesia-Malaysia	258	425	729	866	963	1174	1244	5.38%
Malaysia-Singapore	226	465	755	878	1043	1202	1225	5.79%
Nepal-India	888	1107	1208	1280	1303	1231	1161	0.90%
China-S. Korea	57	99	151	329	598	892	948	9.81%
Laos-Thailand	167	208	291	542	832	903	945	5.94%
Myanmar-Bangladesh	227	230	232	130	236	238	908	4.73%
China-Japan	152	224	338	651	691	719	781	5.62%
Cambodia-Thailand	88	140	214	417	646	697	725	7.29%
NZ-Australia	346	364	420	483	581	641	697	2.36%
China-Australia	98	109	146	230	375	513	657	6.54%
Bangladesh-Malaysia	116	160	213	393	556	596	615	5.71%
India-Australia	73	80	91	152	334	453	583	7.17%
S. Korea-Japan	692	669	651	547	584	475	479	-1.22%
China-Singapore	150	191	250	300	366	420	426	3.53%
Viet Nam-China	286	291	296	304	303	304	306	0.22%
Philippines-Australia	92	105	115	136	188	245	291	3.93%

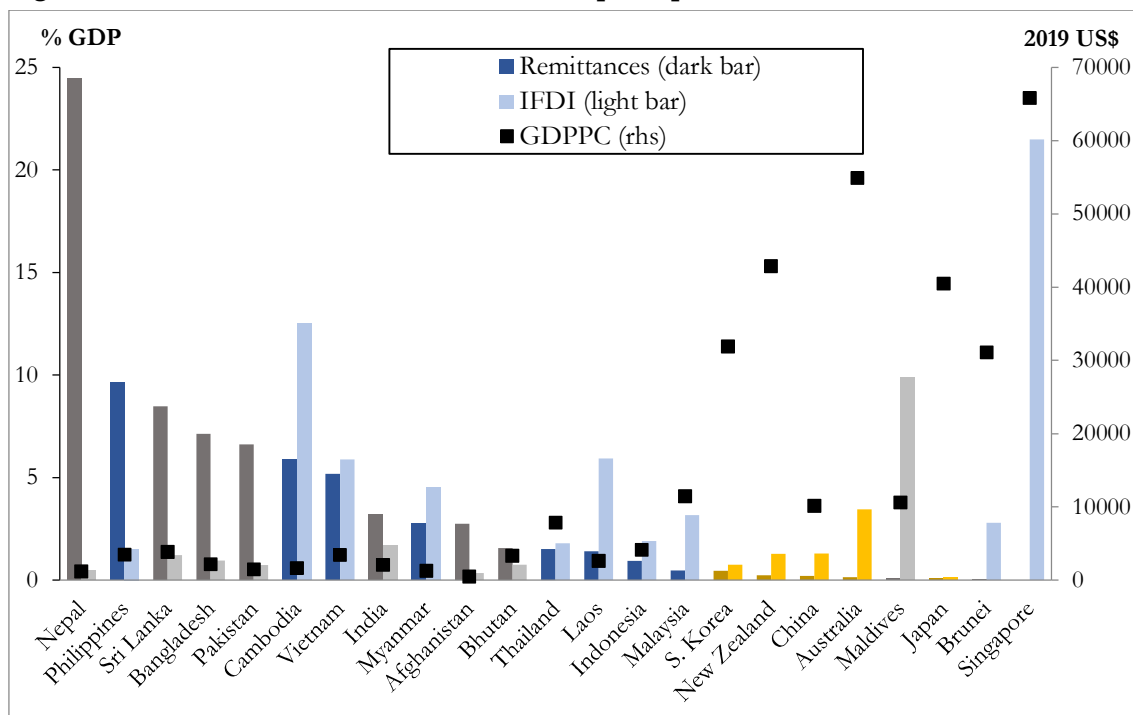
Note: In thousands of persons. The corridor runs primarily from the first to the second country listed, with numbers reflecting bidirectional stocks. CAGR is the compound annual growth rate between 1990 and 2020. Source: UN Population Division 2021.

Figure 8.5: Net FDI and migration by country and five-year period, 1980-2019



Note: Observations represent a single country and five-year period (e.g. 1980-1984). Sources: UN 2019; UNCTAD 2021.

Figure 8.6: Remittances, FDI inflows and GDP per capita



Note: Remittances and IFDI represent the average values over a ten-year period ending in 2019. Sources: UNCTAD 2021; World Bank 2021.

FDI and migration policies – patterns and measurement limits

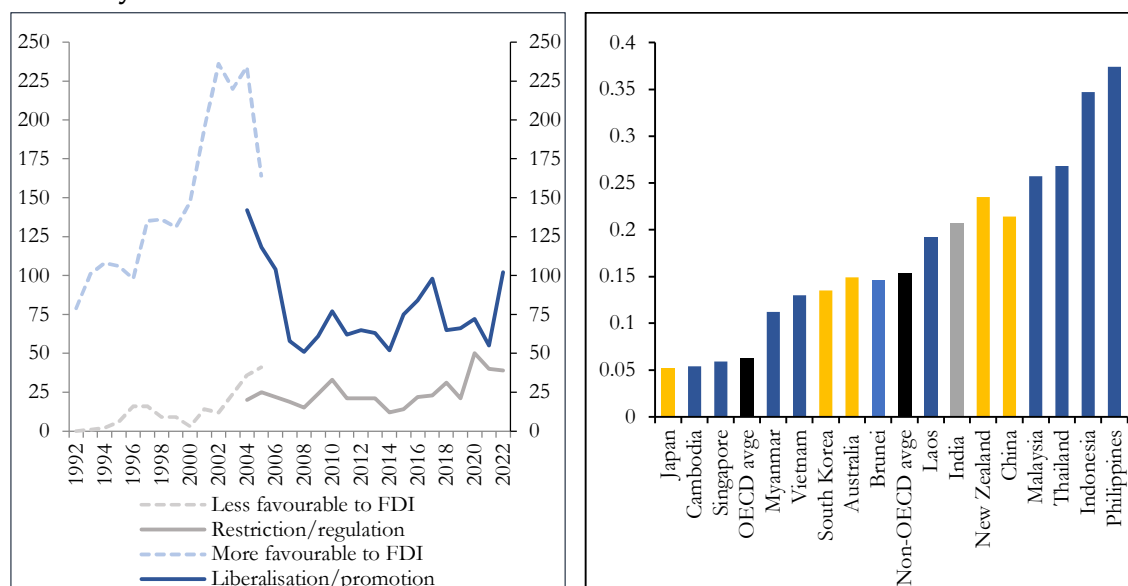
As earlier chapters have shown, measurement of FDI and migration policies globally is patchy; hampered by steep information, conceptual and time barriers to compiling relevant indexes. Often practitioners avoid quantifying change magnitude or use outcomes (such as investment as a share of GDP or migrant share of population) as a proxy for policy stringency, conflating cause and effect. This distinction is important as factor flows can increase despite or because of the tightening of policies, for example via additional screening of and conditions on investment approvals or longer wait times and constrained naturalisation options for migrants. Available measures and indicators are greatly limited in their geographic and temporal coverage, particularly for developing countries.

The OECD's FDI Regulatory Restrictiveness Index (OECD 2020) provides the most comprehensive FDI measure — including up to 69 countries and selected years from 1997-2020. According to this measure, average restrictiveness in OECD countries is essentially unchanged over the past five years for which data are available, while barriers reduced in the selected non-OECD countries captured (Figure 8.7). Within the region, the OECD Index captures all of East and Southeast Asia but only India from South Asia. Cambodia and Singapore are less restrictive than the OECD average and Myanmar and Vietnam are also quite competitive, however the remainder rate relatively poorly. Note that the OECD weights equity restrictions most heavily, marks all pre-approval processes negatively and excludes national security specific measures from its calculations, whereas this thesis adopts a different methodological approach. Based on research supporting the (below described) snapshot and the index methodology, Pakistan and Afghanistan would perform relatively strongly, Bangladesh moderately, and Bhutan, Maldives, Nepal and Sri Lanka very poorly on the OECD's index.

Beyond this, a one-off publication by the World Bank provides an investment climate snapshot for 87 developing countries in 2010, but this is now outdated (World Bank Group 2010). Investment policy changes (as opposed to overall country regulatory comparisons) are monitored by UNCTAD, and while the peak period for liberalisation measures was around the turn of the century, changes favourable to FDI still outweigh less favourable changes by a margin that was narrowing until 2022 (Figure 8.7).

Migration policy indicators are similarly incomplete in terms of coverage. Perhaps the most comprehensive is the DEMIG POLICY database, which tracked policy changes in 45 countries from 1945-2013 (de Haas, Natter, and Vezzoli 2016), categorising them as more or less restrictive. Less restrictive policies have consistently exceeded more restrictive over the period captured, but there has been significant convergence since 1990 with some years with almost even numbers. That is, net liberalisation has slowed considerably in the past three decades, at least in the mostly developed countries covered. Note that this too only captures changes from an arbitrary baseline.

Figure 8.7: Investment policy changes (1992-2022) and FDI regulatory restrictiveness (2020 or latest year)



Note: A methodological change created a series break, with duplicate data for 2004-05 allowing some comparability between the definitions (i.e. less favourable to FDI and restriction/regulation). Higher FDI index values correspond to higher restrictiveness (rhs chart). Sources: UNCTAD 2020 (and 2005), OECD 2022.

The MIPEX database offers a more contemporary but niche indicator focused on migrant integration, capturing 58 countries since 2007 (MIPEX 2020). It focuses on migrant opportunities post-arrival (access to jobs and education, discrimination, pathways to citizenship etc.) rather than complete coverage of entry, border and other policies. Average integration scores improved slightly over the past six years. Regional coverage for the MIPEX index is very limited. New Zealand and Australia emerge as strong performers, Japan and South Korea poor among OECD countries, and China, India and Indonesia are among the 'most unfavourable' grouping, less hospitable than Eastern Europe, Argentina, Brazil, Turkey and Mexico. The MIPEX index has not been updated since 2019 and does not capture policy changes with sufficient granularity to reflect important changes within the region, including efforts in Japan (Oishi 2021; Rehm 2022) and South Korea (Chung 2021) to better integrate increasing migrant populations.

The UN survey of population policies also offers a useful repository of information reported by countries, but is limited to yes/no questions on overarching system features with little documentary evidence validating country responses (UN Population Division 2019b). IOM's Migration Governance Indicator Profiles also provide one-off qualitative policy snapshots for an increasing country sample, albeit focusing on policies relating to the main direction of migrant flow (which is emigration for several countries; IOM 2021).

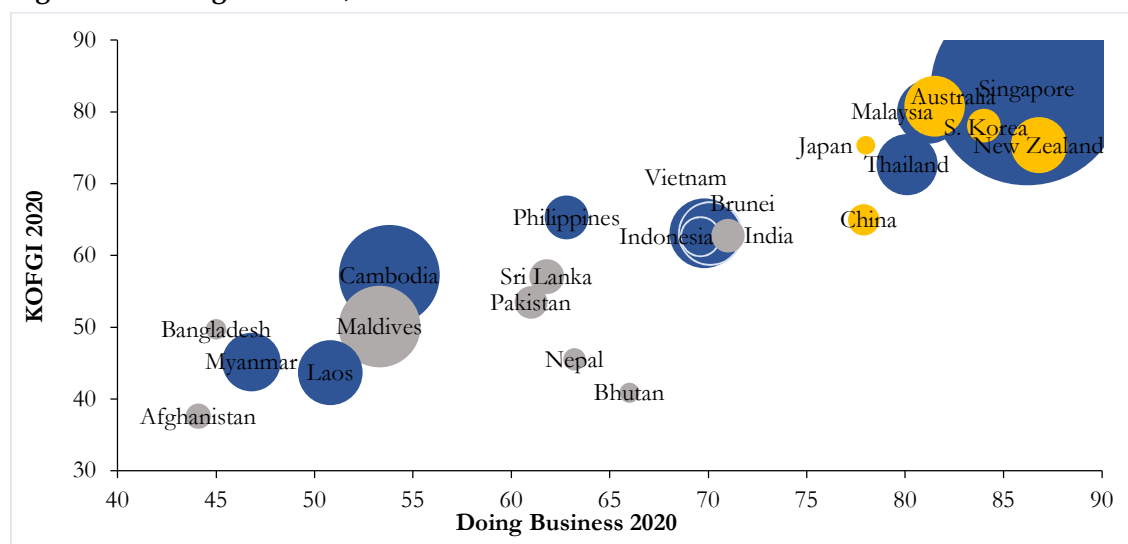
Broader globalisation and economic freedom indices have greater country coverage but rely on narrow proxies for freedom of capital and people movements. The Fraser Institute's Economic Freedom Index uses measures of capital and exchange rate controls and visa restrictions, while the KOF Globalisation Index uses these plus FDI and migration stocks, tourist and student movements, international investment agreements and a range of less relevant measures approximating financial and interpersonal globalisation (Gygli et al. 2019;

Gwartney et al. 2020). The KOF measures show some liberalisation since 1970, with the East Asia and Pacific region significantly more globalised than South Asia.

Combining the KOF Index with the recently discontinued Doing Business metric (a former World Bank staple measuring constraints on businesses both foreign and domestic), Figure 8.8 depicts the interlinkages between global integration, business conditions and FDI competitiveness. While the KOF and Doing Business measures are clearly correlated, identifying a relationship with FDI is more challenging. This provides further evidence of the problem with using outcomes to proxy policies.

In sum, available policy indicators make strict policy comparisons impossible and limit understanding of changes across time and countries. The COVID-19 pandemic response, which added further people movement limits for public health reasons, together with heightened investment restrictions in some countries, further highlights the need for greater policy comparability. It also illustrates the diminishing environment for calibrating migration and FDI policies to harness concurrent inflows and a more urgent need to understand how countries can cooperatively harness factor flows to facilitate a stronger economic recovery.

Figure 8.8: Doing Business, KOF Globalisation Index and Inward FDI Stock (%GDP)



Note: Bubble size reflects inwards FDI stock as a percentage of GDP. Sources: World Bank 2020a; Gygli et al. 2019; UNCTAD 2021.

Regional FDI and migration policy snapshot

Recognising the limitations of existing measures, a point-in-time snapshot was developed to examine prevailing migration and FDI policies in the 23 countries and aid understanding of their intersections — defined here as areas of policy complementarity. The snapshot summarises a more extensive range of FDI, migration and complementarity policy features (207 in all) than existing databases and indicators. The categorisation largely follows that deployed for the Australian and Malaysian case studies (inspired by the OECD's Index and DEMIG database categories), with additional categories capturing overall framework/protections, outwards investment and emigration. Complementarity or overlapping policies that directly impact both FDI and migration are captured separately. Examples include visa policies for foreign investors (companies and individuals), policies encouraging migrant entrepreneurship, return migration for business development and

remittance investment facilitation. The information is correct as of 1 April 2021 and both written summaries and detailed datasets for each country are available in an associated technical paper.

Table 8.2 summarises individual country policies by category on a simple colour-coded, five-point scale. The table does not provide a scientific comparison between countries or a quantitative indicator²⁰ but illustrates areas of relative strength and weakness for individual countries and the region (drawing on the 207 features). A numerically unsophisticated aggregate summary snapshot broadly situates countries (Table 8.3 and Figure 8.9) but is not designed to facilitate quantitative comparisons. Some subjectivity in the colour-coding is unavoidable in the absence of a formulaic quantitative approach, with every effort made to provide a fair comparison between countries within each category.

²⁰ Replicating the indicators produced for Australia and Malaysia across the remaining 21 countries would be an enormous undertaking beyond that of a single doctoral student.

Table 8.2: Regional policy snapshot

	FDI						Migration						Complementarity
	Framework/ protections	Equity/ ownership	Approval/ screening	Land	Other	Outwards	Framework/ protections	Legal entry	Border control	Integration	Exit	Emigration	Overall
Afghanistan													
Australia													
Bangladesh													
Bhutan													
Brunei													
Cambodia													
China													
India													
Indonesia													
Japan													
Laos													
Malaysia													
Maldives													
Myanmar													
Nepal													
New Zealand													
Pakistan													
Philippines													
Singapore													
South Korea													
Sri Lanka													
Thailand													
Vietnam													

Legend:

Extensive shortcomings	Major shortcomings	Mix of pros and cons	Some gaps	Almost no gaps

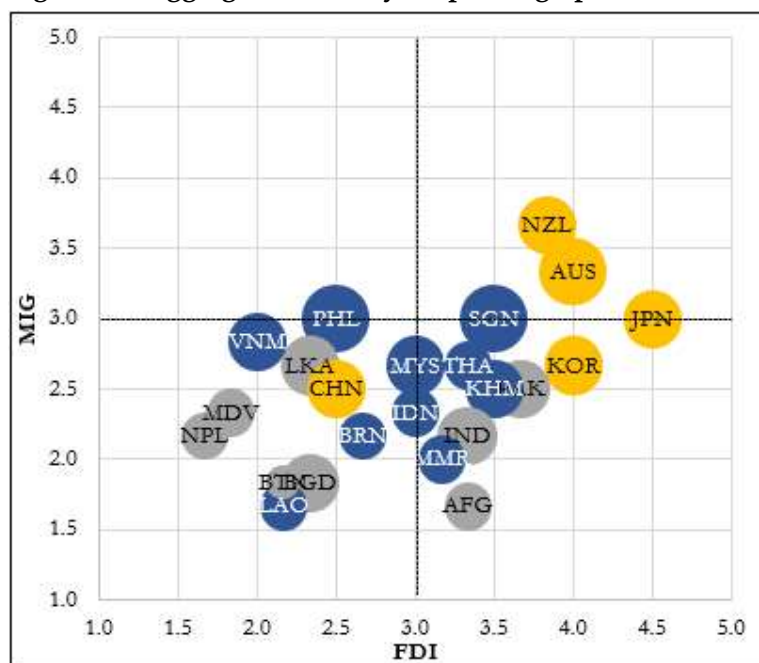
Note: Snapshot for illustration purposes only, with more detailed policy information provided in the accompanying technical paper. Scores are not cumulative across categories in respect of overall restrictiveness, as severe restrictions in one category or broader factors (for example political instability or conflict) can make the environment more restrictive than the sum of its parts. These evidence an accumulation of policy shortcomings of varying magnitudes.

Table 8.3: Aggregate summary snapshot (table)

	FDI	MIG	Comp	Total
Australia	4.00	3.33	4.00	3.78
Singapore	3.50	3.00	4.00	3.50
Japan	4.50	3.00	3.00	3.50
New Zealand	3.83	3.67	3.00	3.50
South Korea	4.00	2.67	3.00	3.22
Philippines	2.50	3.00	4.00	3.17
Pakistan	3.67	2.50	3.00	3.06
Cambodia	3.50	2.50	3.00	3.00
Malaysia	3.00	2.67	3.00	2.89
India	3.33	2.17	3.00	2.83
Sri Lanka	2.33	2.67	3.00	2.67
Thailand	3.33	2.67	2.00	2.67
China	2.50	2.50	3.00	2.67
Vietnam	2.00	2.83	3.00	2.61
Indonesia	3.00	2.33	2.00	2.44
Bangladesh	2.33	1.83	3.00	2.39
Myanmar	3.17	2.00	2.00	2.39
Afghanistan	3.33	1.67	2.00	2.33
Brunei	2.67	2.17	2.00	2.28
Maldives	1.83	2.33	2.00	2.06
Laos	2.17	1.67	2.00	1.94
Nepal	1.67	2.17	2.00	1.94
Bhutan	2.17	1.83	1.00	1.67
Average (region)	2.74	2.34	2.58	2.55
Average (all)	2.97	2.49	2.70	2.72

Note: Numerical values reflect extensive shortcomings = 1, major shortcomings = 2, mix of pros and cons = 3, some gaps = 4 and almost no gaps = 5. Aggregate scores represent averages by category (FDI, MIG and Comp).

Figure 8.9: Aggregate summary snapshot (graphical)



Note: Bubble size represents the complementarity score

No country performs strongly across the board (that is, has few policy gaps) for both FDI and migration policies. Unsurprisingly, more developed countries score better on average with more comprehensive and sophisticated policies. Australia is perhaps marginally the best performer with Singapore, Japan and New Zealand close behind. Singapore, the Philippines and Australia are the only countries with positive complementarity scores (and none achieve the maximum), indicating significant potential to enhance migration and FDI policy intersections regionally. FDI policies are relatively favourable in most countries, consistent with capital being the preferred factor inflow regionally. Three countries in each of South and Southeast Asia have relatively few FDI policy gaps (India, Pakistan, Afghanistan, Thailand, Myanmar and Cambodia), while none have above middle migration scores (only Australia and New Zealand do among the full sample). Bhutan rates lowest overall and for complementarity settings, while Nepal ranks worst for FDI policies and Afghanistan and Laos joint bottom for migration policies.

Every country has its own unique combination of policy settings, but several important cross-cutting themes are worth highlighting:

- all countries have policy shortcomings that would benefit from significant reform;
- immigration barriers are significantly higher than FDI barriers, with no country close to migration policy best practice;
- defensive objectives (such as to protect jobs) more frequently underpin migration than FDI policies;
- many countries lack basic protections (rights) for both foreign investors and migrants and/or have systems that are difficult to navigate without engaging expensive expertise;
- significant equity restrictions (particularly in key services sectors) and burdensome investment approval processes persist in most countries. Post-establishment

intervention powers are either extensive or unspecified, providing limited certainty to investors;

- land ownership rules remain highly discriminatory against foreign entities and persons, erecting barriers to long-term business development and migrant integration;
- most countries retain some combination of minimum investment requirements (which also significantly affect complementary flows by inhibiting individual migrant investors), local directorship or content requirements and market access restrictions (often discriminatory public procurement or SOE concentration). Comparatively few countries limit profit/capital repatriation, impose business structure requirements or foreign-specific taxes;
- immigration is almost universally viewed as filling temporary skills deficits, not providing a persistent contribution to labour markets and development. Entry and integration policies are commensurately limited, imposing strict conditions (employer sponsorship, short stays, minimum qualifications, cumbersome approvals, non-transferability) and minimal support (curtailed rights, limited access to essential services, no help integrating) or efforts to tackle anti-immigrant sentiment;
- irregular migration is a persistent problem undermining formal regulation efforts. Excessive securitisation, limited multilateral cooperation, few legal channels for less-skilled migrants and minimal consideration of stakeholder incentives hamper effective border control;
- immigrant integration is an afterthought, despite parallel concerns and more sophisticated policy approaches applying to emigrants in some countries;
- exit policies provide broad grounds for arbitrary expulsion without adequate rights to appeal. In some countries, powers have been exercised with impunity for largely political ends;
- approaches to outwards investment are polarised. Countries either prohibit or severely restrict investment, or have almost completely liberalised policies (and in some cases now actively facilitate investment);
- emigration policies range in their efficacy but contain fewer gaps or detractions than immigration policies in most countries. Outcomes do not always match objectives however, as there are limits to supporting citizens in other jurisdictions; and
- complementary factor flows are constrained more than facilitated despite most countries understanding labour flexibility as a basic investor need. Visa rules restrict business continuity and limit opportunities for labour migrants to make a longer-term contribution via business development, investment facilitation or permanent residency. Policies seeking to channel diaspora and individual investor capital into productive investment are underdeveloped, as are programmes supporting emigrant return and reintegration. Formal remittance channels have improved considerably but there are vast cost and accessibility differences across the region and informal channels retain a large share.

There is significant scope to advance the positive impact of factor flows on development in the region, with competitiveness to date often resulting from other advantages (such as location, abundant resources, labour costs and quality, political stability) more so than shrewd migration or FDI policies.

Recommendations to better leverage complementarity between capital flows and migration

Leveraging complementary factor flows and policies to boost development requires reforms to FDI and migration policies individually and attention to their interaction. Reforms can be undertaken unilaterally or driven by regional integration efforts, with mutually agreed efforts particularly important to migrant and capital exporters.

Table 8.4 identifies the top three policy priorities for each country and policy area (FDI, migration and their complementarity). While all countries have room for improvement, the weight of the recommendations varies significantly. As the snapshot illustrates, some countries have policy areas with extensive shortcomings while others have robust systems in need of marginal improvements.

Table 8.4: Major policy recommendations by country and category

	FDI	Migration	Complementarity
Afghanistan	• Clarify approval criteria and appeals process • Ease discriminatory land ownership rules • Eliminate time limits on business licences	• Develop a unified and comprehensive legal framework • Address exit policy gaps and secure borders • Align visa conditions with labour market reality	• More business-friendly visa terms and approvals • More flexible and transferable visas • Enhance diaspora engagement and investment facilitation
Australia	• Minimise discriminatory and discretionary approval powers • Reduce the time and monetary costs of approvals • Reverse trend of policy securitisation by adopting national security risk mitigations that do not target foreign investors or capture non-security sectors	• Reduce the wait times, costs, complexity and discretion associated with obtaining visas • Increase safeguards against discrimination in law and practice • Clarify and expand the rights for those facing deportation and for citizens living overseas	• Eliminate uncertainty and delays surrounding activity approvals and flexibility, for both investors and migrants • Enhance diaspora engagement and eliminate barriers to their investing • Make investment visas conditional on genuine business activity and afford entrepreneurship visas greater priority
Bangladesh	• Unify regulatory framework and responsibilities • Streamline approvals • Reduce land ownership barriers	• Improve basic rights • Eliminate arbitrary quotas • Address integration deficiencies	• More streamlined and flexible visa processes • Loosen conditions impeding migrant entrepreneurship • Make investment visas conditional on genuine business activity
Bhutan	• Remove broad joint venture requirement • Streamline and reduce scope of pre-approvals • Eliminate prohibitive minimum capital requirements	• Abandon explicit quotas and phase out rules • Address migrant discrimination and long-term integration options • Develop a holistic emigration management system	• Eliminate arbitrary hiring restrictions • Abolish minimum capital and visa barriers to entrepreneurship • Establish a diaspora engagement and investment facilitation framework
Brunei	• Increase investment framework transparency and clarity • Reduce extensive non-equity restrictions	• Address gaps in basic protections and information access • Longer term approach to entry and integration	• More business-friendly visa terms and approvals • More flexible and transferable visas

	• Ease discriminatory land ownership rules	• Reduce regulatory discretion and irregularity	• Allow foreigners to establish sole proprietorships
Cambodia	• Reinforce investor protections and tackle corruption • Further streamline non-sensitive approvals • Ease discriminatory land ownership rules	• Address information access gaps and official corruption • Reinforce hard and soft borders • Improve immigrant integration and tackle racial divisions	• Reduce red tape for expatriate deployment • Enhance diaspora engagement and investment facilitation • Lower barriers to formal remittances and reintegration
China	• Address gaps in basic investor protections and increase judicial impartiality • Reduce the scope, discretion and ambiguity surrounding approval processes and divestment powers • Ease stringent and highly discriminatory land ownership and use policies	• Increase the application and enforcement of basic rights protections, including anti-discrimination • Reduce the scope of and provide adequate safeguards against unjustified deportation and detention • Proactively support migrant integration, including access to housing, dependent visa work rights and greater naturalisation opportunities	• More flexible and transferable visas, including giving migrants rights to establish sole proprietorships • Eliminate favouritism granting government firms greater access to migrant workers • Lower the costs of formal remittance channels
India	• Enhance dispute resolution processes • More transparent and less discriminatory approvals • Eliminate discriminatory public procurement	• Provide and enforce basic rights protections • Reduce regulatory discretion for both entry and exit • Address extensive integration concerns	• More business-friendly visa terms and approvals • More flexible and transferable visas • Make investment visas conditional on genuine business activity
Indonesia	• Remove excessive ownership restrictions • Improve information accessibility • Eliminate minimum capital and local input requirements	• Address extensive integration concerns • Improve soft border control strategies • Longer term approach to migrant entry and stay	• Eliminate arbitrary hiring restrictions • More business-oriented visa conditions • Lower barriers to remittance investment and reintegration
Japan	• Reduce the scope, discretion and ambiguity surrounding approval processes • Consolidate regulatory responsibilities to further streamline approvals • Reverse trend of policy securitisation by adopting national security risk mitigations that do not target foreign investors or capture non-security sectors	• Eliminate constitutional ambiguity regarding migrant rights and heighten efforts to tackle discrimination • Reduce barriers to entry and stay for desired migrants, including strict sponsorship and skill requirements • Narrow the grounds for deportation	• Enhance diaspora engagement and lower barriers to remittance investment and reintegration • Consider introducing visas encouraging business investment and entrepreneurship • Guarantee visa flexibility not rely on regulatory discretion
Laos	• Address information access and investor protection gaps and official corruption • Streamline burdensome approvals processes • Ease discriminatory land ownership rules	• Improve information access and institutional capacity • Ease restrictions and red tape on legal entry • Revise laws enabling arbitrary deportation and develop a comprehensive border management approach	• Reduce red tape for expatriate deployment • Guarantee visa flexibility not rely on regulatory discretion • Enhance diaspora engagement and investment facilitation

Malaysia	• Remove inconsistent ownership and other restrictions • Improve sectoral information accessibility • Minimise market access restrictions	• Address extensive discrimination • Align stakeholder incentives to combat irregularity • Longer term approach to entry and integration	• Less discretion in granting visa incentives • More business-friendly approach to foreign worker management • Lower barriers to remittance investment and reintegration
Maldives	• Address severe investment protection deficiencies • Narrow extensive list of ownership restrictions and minimum capital requirements • Reduce the scope of prior approval and breadth of divestment powers	• Improve formal channels to reduce irregular migration • Address significant concerns with migrant exclusion and discrimination • Provide greater safeguards against arbitrary deportation	• Remove cumbersome and discretionary quota system • Eliminate approval inflexibility that encourages informality and impedes entrepreneurship • More accessible visas for business investors and policies to channel diaspora investment
Myanmar	• Remove joint venture requirements and non-sensitive equity limits • Further streamline cumbersome and discretionary approvals processes • Reduce land ownership and lease barriers	• Address gaps in basic protections and information access • Counter extensive discrimination and constraints on long-term integration • Eliminate gaps in exit and emigration policies	• Further de-emphasise expatriate temporariness • More flexible and transferable visas • Establish a diaspora engagement and investment facilitation framework
Nepal	• Streamline and reduce the scope of pre-approvals • Reduce extensive ownership limits • Eliminate minimum capital and profit repatriation requirements	• Extend basic protections to migrants • Longer duration and less costly work visas • Longer term approach to integration and eliminate arbitrary exit	• Overhaul conditions on expatriate hiring • Eliminate capital barrier to migrant entrepreneurship • Treat overseas Nepal as locals for FDI purposes
New Zealand	• Minimise the scope and application of discretionary approval powers • Reduce the time and monetary costs of approvals • Ease approvals processes surrounding land ownership and lease	• Have a clearer statement of immigration policy objectives and increase accessibility of legal and host country information for migrants • Increase visa processing timeliness and stay options for less skilled migrants • Address internal border management gaps	• More business-friendly visa terms and approvals • Clarify business and investment rights for work visa holders • Enhance diaspora engagement and lower remittance costs
Pakistan	• Enhance dispute resolution mechanisms • Address corrupt and discriminatory procurement • More extensive stakeholder consultations	• Longer duration and more flexible work visas • Address extensive concerns with migrant integration and abuse • Address legal gaps surrounding arbitrary exit	• More business-oriented visa conditions • Loosen conditions impeding migrant entrepreneurship • Offer investment visas encouraging business activity
Philippines	• Reduce extensive ownership limits • Eliminate minimum capital and local sourcing requirements • Improve access to land ownership and use	• Reduce visa processing delays and costs • Address migrant discrimination and rights deficiencies • Better safeguards against arbitrary deportation	• Normalise special conditions (remove incentive status) • Continue to fine-tune diaspora engagement and investment facilitation • Reduce processing red tape

Singapore	• Ease discriminatory land ownership rules • Reduce restrictions imposed through licensing • Limit the scope of divestment powers associated with licensing	• Address migrant discrimination and rights deficiencies • Better safeguards against arbitrary deportation • Improve soft border policies	• Reduce restrictions on low-skilled migrant entrepreneurship • More concrete incentives for diaspora return • Reduce conditions on foreign hiring
S. Korea	• Consolidate regulatory requirements into a single, accessible framework with streamlined procedures • Reduce relatively extensive ownership limits • Clarify and narrow the scope of security-related approvals processes	• Consolidate regulatory requirements, reduce visa complexity, remove arbitrary quotas and enhance information accessibility • Further tackle informality, discrimination and rights violations • Narrow the grounds for deportation	• More business-friendly visa conditions, including eliminating quotas • Clarify visa transferability and business rights for work visa holders • Eliminate work restrictions on returning overseas nationals
Sri Lanka	• Improve basic protections and regulatory consistency • Reduce ownership restrictions and minimum capital requirements • Streamline and/or eliminate approvals	• Address migrant discrimination and rights deficiencies • Longer duration and more flexible work visas • Longer term approach to integration and eliminate arbitrary exit	• Reduce restrictions on low-skilled migrant entrepreneurship • More business-oriented visa conditions and lower taxes • Offer investment visas encouraging business activity
Thailand	• Reduce extensive ownership limits • Streamline and/or eliminate approvals • Eliminate minimum capital and directorship requirements	• Improve information accessibility • Remove arbitrary quotas and job restrictions • Continue to improve enforcement of border and integration policies	• Remove quotas and duration limits on expatriate hiring • Improve transferability of visas to encourage entrepreneurship • Enhance the remittance and return environment
Vietnam	• Streamline and/or eliminate burdensome approvals • Liberalise land ownership and use laws • Reduce the scope and opacity of security-related divestment powers	• Address concerns with visa regulation discretion • Address migrant discrimination and rights deficiencies • Improve soft border control policies and formal channels	• More business-friendly visa conditions and processing • Enhance the remittance and return environment • Reduce investment visa thresholds to increase demand

Cross-cutting themes among these recommendations suggest regional cooperation would generate mutually beneficial outcomes. Opportunities to promote regional cooperation include:

- large gains achievable at minor cost by improving information accessibility for both investors and migrants. A regional initiative could improve website navigation, consolidation of regulatory information and make translations available;
- establishing common basic protections for both investors and migrants. Investor protections have become captive to agreement negotiations, whereas inadequate migrant protections arise from rights associated with nationality not location;
- supporting regulatory enforcement capacity through cooperation and shared experience;

- more liberalised countries better demonstrating how removing ownership restrictions benefits formerly protected sectors and the overall economy. Remaining foreign ownership restrictions often lack sound rationales, based instead on dated protectionist arguments. Discriminatory land ownership rules follow a similar logic and could be eased to accommodate business investors and support foreign resident integration;
- increasing scrutiny around business structure requirements (such as branch limits or local incorporation), local directorship or sourcing minimums, market access limits (biased government procurement and extensive state ownership) and minimum capital requirements;
- cooperation towards FDI approval processes that are more benefit than burden. Streamlined and inexpensive approvals that facilitate host country integration and guard against post-establishment interference can improve investor certainty and appease wary locals, but in most countries they lack objective criteria and timely, transparent and predictable processes. Regional leaders have trended towards a more securitised, intrusive approach instead of setting a positive example;
- encourage countries to develop and articulate a long-term and comprehensive migration policy. Clearer statements of purpose and better integrated frameworks for different policy arms (legal entry, border control, integration) would provide an essential reform building block;
- improving access to formal migration with realistic pathways to permanent residency. Addressing strict legal entry and long-term stay limits would enhance regional migration management and reduce irregular migration incentives;
- promote best practice approaches to increasing the competitiveness of skilled expatriate policies. Countries in the region are uncompetitive globally in offering essential rights and addressing negative discrimination against preferred migrants, while reducing barriers to long-term stay would support knowledge circulation and integration;
- efforts to cut red tape and highlight country differences would promote smoother approval processes. Visa inflexibility including annual renewals, non-transferability between employers and visa categories, strict sponsorship requirements, and multiple approval processes (for visas, work permits and registration) deter migrants and investors alike;
- collective efforts to reinforce hard borders and develop more effective soft border approaches. This includes efforts to reduce regional inequality, promote formal migration channels, and to align incentives for migrants and employers to cooperate with regulators. Formal channels must offer superior rights and lower costs to discourage irregular alternatives;
- applying efforts to promote rights improvements and facilitate emigrant integration equally to immigrants. There is significant development potential that is unrealised as migrants who receive basic integration assistance and generally feel more welcome in society will contribute more positively; including by generating lasting people and business links back home;
- improving basic protections against arbitrary detention and deportation is a regional imperative. Exit policies across the region are either poorly or broadly defined or exercised for political ends rather than immigration enforcement and repatriation of serious criminal offenders;

- leveraging established forums (such as the Colombo Process) to increase multilateral cooperation around emigration policies that facilitate return, reintegration and investment, and enhance deployment and welfare initiatives; and
- a comprehensive review of migration and FDI policies to reflect complementarity considerations. Migration and FDI flow and policy intersections are scarcely acknowledged across the region, with few countries explicitly recognising investors' labour needs and migrants' potential contributions to investment generation and entrepreneurship. Investor visas are seldom tied to genuine business investment and seek wealth rather than skills. Visa inflexibility places additional burdens on investors and migrants for simple matters such as renewals, category transfers and replacement personnel for an approved position. Quotas and time limits are generally inconsistent with long-term business needs.

Country groupings within this chapter's sample are making improvements in some areas. The Regional Comprehensive Economic Partnership (RCEP) — which entered into force on 1 January 2022 and includes the 15 Southeast and East Asian and Pacific countries studied as signatories — includes an investment chapter standardising foreign investment protections and access for this grouping (ASEAN Secretariat 2019). The ASEAN countries have also been active in promoting cooperation in areas including regional payment connectivity, investment facilitation, investor support mechanisms, and attracting investment to produce electric vehicles (ASEAN Secretariat 2023). However, the South Asian Association for Regional Cooperation (SAARC) has made little progress on economic integration in the past decade (Poudel 2022) and integration between South and Southeast Asia remains significantly below potential (World Bank 2022). And overall Asia-Pacific integration — including integration related to investment and people movements — has scarcely changed since 2006 according to Asian Development Bank indexes (Asian Development Bank 2023). The above analysis illustrates the substantial scope for regional groupings (existing or new) to cooperate further on investment and migration policies.

Conclusion

FDI and migration policy complementarity is an underappreciated but potentially beneficial contributor to economic development, providing a boost to development alongside traditional drivers like institutional and human capital improvements. Cognisance of migration and FDI flow and policy intersections in the region is low and prevailing policies provide an unsupportive environment with few exceptions. Opportunities abound to reduce barriers to both FDI and migration individually while emphasising areas of overlapping benefit, including visa conditions and flexibility that suit investor and migrant needs. Regional cooperation could assist all countries through shared learnings and greater policy consistency, encouraging an intraregional policy environment more conducive to factor flow movements and economic development.

Chapter 9

Summary and conclusions

The central idea this thesis explores is that migration and foreign direct investment (FDI) can be complementary economic development drivers, with prevailing policy biases — against migration in particular — impeding the realisation of benefits from both. This argument stems from infrequently acknowledged patterns of capital and labour simultaneously flowing into a significant number of countries. It also reflects the observation that immigration is not often associated with supporting development in receiving countries and its associations with FDI are viewed almost exclusively through a microeconomic not a macroeconomic lens. The independent formulation of migration and FDI policies to achieve differing objectives appears to be the most common approach around the world.

The starting point was to situate the argument by observing how differences in migration and FDI (foreign labour and capital) are conceived in the academic literature and in practice. Traditional economic theories treat capital outflows and labour inflows as substitutes, while in practice there are many cases of capital and labour flowing in the same direction. Recent studies emphasise the contextual factors — the characteristics and policies of countries — that help to explain why factor flow patterns deviate from the predictions of traditional theoretical models, but there is a need for further ranking and organisation of such factors. There is mounting empirical evidence linking migration and FDI — both macro and micro — but it is primarily focused on the association between emigration and FDI. The factors that might explain the associations between migrants and FDI have been paid little attention, especially the influence of policy due to measurement constraints discouraging empirical analysis.

There is also an inseparability between migrants and foreign investment that bears remembering when considering both factor flow and policy relationships, with foreign persons themselves capital holders or essential managerial and technical staff deployed by multinational corporations.

To provide the argument with a conceptual structure and to guide empirical investigation of its features, a theoretical framework for concurrent factor inflows was developed (in Chapter 3). The ‘dual factor importation’ framework expresses the probability of simultaneous net inflows of migrants and FDI into a country as a function of its characteristics (such as human capital, institutions, technology and natural resources) and policies that influence migrant and investor decisions. Relating this framework to development stages through a three-country representation of factor flow potential then shows how concurrent migrant and FDI inflows might arise around middle-income as a country’s production capabilities and labour skills needs evolve. Empirical analysis using a panel of global data provides broad support for the framework and identifies improvements in two leading economic development drivers — human capital and institutions — as the main factors that explain the positive effects of complementary inflows of FDI and migrants. Net inflows of both migrants and FDI are also found to improve development outcomes around middle-income, suggesting policies that support better education and institutions and increased factor inflows would be mutually reinforcing and economically superior.

Data constraints limit the depth of analysis possible using a large country sample, but the case studies of Australia and Malaysia examine migration, FDI and development relationships and their contextual and policy influences in detail. Both Australia's and Malaysia's historical experience involved positive factor flow relationships running in both directions, with FDI leading to more migration not just migration increasing FDI as the literature commonly suggests. The influence of migration on FDI inflows is the stronger for Australia, although the reverse relationship is also substantial. The opposite is true for Malaysia, where gross FDI inflows prompt greater immigration, more so than migrants boost FDI. Australia's higher skilled migrants are associated with the attraction of substantially more FDI, with the average per 100,000 migrant effect a cumulative 33.8 percent increase in FDI inflows after 15 years compared to the negligible 0.35 percent for Malaysia.

Both countries' experience suggests that factor flow relationships differ with migrant and investor characteristics — something that has received little examination before. Purpose-modelled longitudinal estimates of Malaysia's undocumented migrant population permitted an exploration of differences by migrant status. Combined with measures differentiating between new and established foreign investors, there appear to be distinct channels relating formality and experience. Documented migrants are much more strongly associated with new (and potentially more complex) investment compared to undocumented migrants, whereas established investors in Malaysia have far greater links (or access) to undocumented migrants. The findings relating migrant and investor type to changes in economic complexity suggest opportunities for Malaysia to better leverage formal migration to attract new investors and discourage the use of undocumented migrants that help sustain less complex industries.

Australia's experience highlights how the skill-levels of migrant intake, its diversity and temporariness are associated with FDI inflows but economic benefits are less definitive. Australia's embrace of temporary (over permanent) migration from the mid-1990s has been associated with increased FDI, with each temporary migrant associated with around three times more FDI than permanent migrants. Australia's increasingly skilled migrant intake (under tightening selection policies) also appears to be associated with higher FDI inflows, with a 1 percent increase in the skill share increasing FDI by 0.7 percent over 15 years.

Increased diversity of intake is likewise associated with more FDI according to evidence from around half of the empirical specifications. While temporary migrants have a stronger and more positive association with increased capital and trade, permanent migrants are associated with larger reductions in the long-term unemployment rate, higher wages, and around three times the increase in GDP per capita as well as technology improvements. A 100,000 increase in permanent migration and a standard deviation increase in FDI inflows (about US\$18.5 billion) deliver quantitatively similar improvements to long-term GDP per capita and the unemployment rate. A higher skill share is associated with increased GDP per capita and institutional improvements but is counterintuitively linked to a higher unemployment rate and lower increases in technology, capital and wages. Greater diversity of migrant intake appears to support long-run technology, education and trade growth but deliver negative unemployment and wage outcomes. Possible explanations — that suggest areas for policy refinement — include more skilled and/or diverse migrants take longer to find employment, reflect skills mismatch or substitution with local employees, or that temporary migration reduces incentives for migrant investment and entrepreneurship.

Evidence from both Australia and Malaysia reveals the influence of policies on both factor flow relationships and economic outcomes. FDI policy tightening reduces migrant inflows — a relationship found across most different policy measures and migrant types. The magnitude of this effect was larger for Malaysia, where FDI has a stronger influence on migrant demand, and for temporary migrants in Australia — consistent with the closer association between temporary migration and FDI. Australia's investment approval processes are an exception, with policy tightening associated with higher temporary but lower permanent migration — especially tightening of land-related policies which may deter migrants from establishing roots. It is also noteworthy that increased migration (especially net migration) is associated with longer-term FDI policy tightening in Australia, which suggests FDI policies may be influenced by anti-foreigner sentiment instead of adjusted to increase capital in response to the labour supply shock.

Contrary to expectations theorised in Chapter 3, overall migration policy tightening appears to be associated with large increases in long-term (gross) FDI inflows. The effect is more than twice as large for Malaysia, where border control tightening contributes significantly to this result. Here, it seems, the attractiveness of the investment environment (its perceived stability) is boosted by a likely association between border tightening and the improvement of governance — an idea further supported by the finding that the tightening of migrant integration policies reduces net FDI and foreign company registrations (as such policies are primarily measures closely linked to volatility in racial and religious tensions). Malaysia's experience also suggests that the tightening of migration policy exclusively targeted at unskilled migrants results in about a 50 percent larger increase in gross FDI, but it also suggests migration policy tightening can increase offshoring by domestic firms. Australia's experience where the tightening of migration policy is associated with higher FDI inflows appears to reflect a different but not altogether unrelated phenomenon. The benefits of migration flows seem to heavily favour incumbent firms (primarily domestic but also longstanding foreign investors) in both countries, though in Australia this appears the product of policy settings (such as occupations lists for temporary visas) rather than policy ineffectiveness (in Malaysia). Migration policy liberalisation — in conjunction with FDI screening requirements that assess new FDI entrants on the basis of their expected contributions to local jobs — may inadvertently act as a barrier to new foreign investors due to a competition effect (superior access to migrants lowers labour costs for incumbent firms). It may also reflect that Australia's tightening of skills criteria has strengthened the positive relationship between migrants and FDI.

Migration and FDI policies have largely diverged in both Malaysia and Australia, consistent with a pattern widely evident in other countries of FDI policy liberalisation and migration policy tightening. While the negative association between migration and FDI policies (that is, liberalisation of one is associated with future tightening of the other) differs for each country, it is consistent with the idea that liberalising FDI policies indirectly prompts a migrant supply shock (increase), which in turn may trigger migration policy tightening to manage migrant inflows. An exception to the negative relationships is migrant legal entry policies, which liberalised in tandem with certain FDI policies. In Malaysia, legal migrant entry and FDI incentives policies followed this pattern, which reflects explicit incorporation of expatriate and foreign worker policy easing into Malaysia's FDI competitiveness reforms (albeit a very modest easing). For Australia, legal entry and land policies have a positive relationship, consistent with some coordination in setting the rules for migrants to stay and foreigners'

rights to acquire land. There is nonetheless divergence in Australia between the main migration (legal entry) and FDI (screening) policy levers and little evidence from a detailed historical examination of policy developments that settings are framed and implemented in a coordinated manner. Policy divergence almost certainly indicates the potential for both countries to better coordinate migration and FDI policies to harness international factor inflows for development.

Migration and FDI policy tightening produced more negative than positive economic outcomes for both countries. FDI policy tightening is associated with lower GDP per capita, an increased unemployment rate and lower wages. Migration policy tightening reduced short-run wages, long-run capital accumulation and GDP per capita in Australia, but it also reduced unemployment. It also reduced unemployment in Malaysia where, by contrast, migration policy tightening increased GDP per capita — which likely reflects migrants being less skilled (and therefore less productive) than locals are on average.

Armed with these findings — which support the central idea and detail several key dimensions of the complex interaction between FDI and migrant inflows — and the findings of a snapshot of migration and FDI policies across 23 Asia-Pacific countries, there would appear to be considerable scope for national and regional policy reforms to better harness migration and FDI for economic development.

Large gains may be achievable at minimal cost by making information for investors and migrants simpler, more accessible and centralised, and by establishing common basic protections for investors and migrants. Countries could beneficially develop a long-term migration (and FDI where missing) policy that articulates an overarching and integrated approach combining the individual policy arms (such as migrant entry and stay policies that help with border control efforts) — and with clear links to FDI policy goals.

There could be greater attention to framing policies that take into account the connections, or complementarity, between migration and FDI and removing restrictions that put a brake on their positive benefits. Particular examples include: (1) visa rules that restrict business continuity (with overly strict limits on migrant deployment) and limit opportunities for migrants to contribute to business development, facilitate investment and attain permanent residency; (2) prioritising social integration policies (for migrants) to maximise investor and migrant contributions to the host country economy and society; (3) pervasive undocumented migration — resulting from policies and enforcement shortcomings that provide little incentive to migrate formally — deterring FDI entry; and (4) policies that engage the diaspora and channel their capital into productive investments, as well as support emigrant return and reintegration.

In sum, migration and foreign direct investment can be mobilised together to boost economic development, especially as a complement to human capital and institutional deepening around the middle-income level.

Migration and FDI policies have an important influence on economic outcomes, with FDI policy liberalisation more clearly supporting increased migration and GDP per capita growth but migration policy liberalisation not delivering expected benefits because migration buttresses incumbent firms and stricter migrant selection can increase migrant quality. Unravelling policy preferences that excessively favour FDI over migration and adopting a

coordinated, longer-term policy strategy towards both factor flows is likely to enhance economic development outcomes.

Future research could explore these key findings by testing their application across a wider geography or history. That migration policy liberalisation represents a potential barrier to FDI in particular warrants further examination as an unintended consequence of migration and FDI policies being formulated separately, not together, towards economic development goals. Supplementing the thesis' macroeconomic findings with microeconomic evidence of the identified relationships would also add value. There are many possibilities for further empirical analysis using the broader suite of policy indicators developed for Chapters 6 and 7 — or extensions to more countries — with the intention to make these available to interested researchers. And perhaps most fruitful would be to continue integrating ideas across the migration, FDI and development literatures to enhance understanding of their interrelationships and help resolve areas of unsettled individual scholarship.

If there is one key takeaway from this study of the complex relationship between migration and investment flows, it is that policies toward migration and FDI need to be considered together in the pursuit of long-term economic development goals, not as separate instruments of national economic and social policy. And there needs to be greater attention to the role of migration in facilitating the contribution of FDI to national capital formation over the course of development through middle income.

References

- Abbott, T. 2015a. "Government Tightens Rules on Foreign Purchases of Agricultural Land." *PM Transcripts*. Canberra: Australian Government. <https://pmtranscripts.pmc.gov.au/release/transcript-24189>.
- . 2015b. "Government Strengthens the Foreign Investment Framework." *PM Transcripts*. Canberra: Australian Government. <https://pmtranscripts.pmc.gov.au/release/transcript-24413>.
- Abdul Aziz, A.R., R. Alip, H. Salleh, and M. Sirat. 1999. "Malaysia's Policies On Immigrant Labour: Rash Blunders or Careful Design?" *Jurnal Perniagaan & Sains Sosial* 5: 1–27.
- Abdul Kohar, U.H., A.J. McMurray, and K. Peszynski. 2017. "The Influence of Foreign Investment on Malaysian Bumiputera Technology Firms: 1957-2016." *Journal of Management History* 23 (3): 278–96. <https://doi.org/10.1108/JMH-03-2017-0009>.
- Abel, G.J. 2017. "Estimates of Global Bilateral Migration Flows by Gender between 1960 and 2015." *International Migration Review* 52 (3): 809–52. <https://doi.org/10.1111/imre.12327>.
- Abella, M., and P. Martin. 2015. *Guide on Measuring Migration Policy Impacts in ASEAN*. Bangkok: ILO. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/publication/wcms_461880.pdf.
- Abramitzky, R., L. Boustan, E. Jácome, and S. Pérez. 2021. "Intergenerational Mobility of Immigrants in the United States over Two Centuries." *American Economic Review* 111 (2): 580–608. <https://doi.org/10.1257/aer.20191586>.
- Acemoglu, D., S. Naidu, P. Restrepo, and J.A. Robinson. 2014. "Democracy Does Cause Growth." 20004. Working Paper. <https://doi.org/10.3386/w20004>.
- Acemoglu, D., and P. Restrepo. 2019. "Automation and New Tasks: How Technology Displaces and Reinstates Labor." *The Journal of Economic Perspectives* 33 (2): 3–30. <https://doi.org/10.1257/jep.33.2.3>.
- . 2020. "Robots and Jobs: Evidence from US Labor Markets." *Journal of Political Economy* 128 (6): 2188–2244. <https://doi.org/10.1086/705716>.
- . 2022. "Demographics and Automation." *The Review of Economic Studies* 89 (1): 1–44. <https://doi.org/10.1093/RESTUD/RDAB031>.
- Adams, N., and T. Atkin. 2022. "The Significant Shift in Australia's Balance of Payments." *RBA Bulletin*, no. March. <https://www.rba.gov.au/publications/bulletin/2022/mar/the-significant-shift-in-australias-balance-of-payments.html>.
- Adamson, F.B., and G. Tsourapas. 2020. "The Migration State in the Global South: Nationalizing, Developmental, and Neoliberal Models of Migration Management." *International Migration Review* 54 (3): 853–82. <https://doi.org/10.1177/0197918319879057>.
- Adarov, A., and R. Stehrer. 2021. "Implications of Foreign Direct Investment, Capital Formation and Its Structure for Global Value Chains." *World Economy* 44 (11): 3246–99. <https://doi.org/10.1111/twec.13160>.
- Adda, J., C. Dustmann, and J.-S. Görlach. 2021. "The Dynamics of Return Migration, Human Capital Accumulation, and Wage Assimilation." 9051. CESifo Working Paper. Munich. https://www.econstor.eu/bitstream/10419/235421/1/cesifo1_wp9051.pdf.
- Aiginger, K., and D. Rodrik. 2020. "Rebirth of Industrial Policy and an Agenda for the Twenty-First Century." *Journal of Industry, Competition and Trade* 20 (2): 189–207. <https://doi.org/10.1007/s10842-019-00322-3>.
- Ajzenman, N., G. Aksoy, and S. Guriev. 2022. "Exposure to Transit Migration: Public Attitudes and Entrepreneurship." *Journal of Development Economics* 158: 23. <https://doi.org/10.1016/j.jdeveco.2022.102899>.
- Alarian, H.M., and M. Neureiter. 2021. "Values or Origin? Mandatory Immigrant Integration and Immigration Attitudes in Europe." *Journal of Ethnic and Migration Studies* 47 (5): 1006–27. <https://doi.org/10.1080/1369183X.2019.1668756>.

- Albert, C. 2021. "The Labor Market Impact of Immigration: Job Creation versus Job Competition." *American Economic Journal: Macroeconomics* 13 (1): 35–78. <https://doi.org/10.1257/mac.20190042>.
- Allen, S.H. 2022. "The Uncertain Impact of Sanctions on Russia." *Nature Human Behaviour* 6 (6): 761–62. <https://doi.org/10.1038/s41562-022-01378-8>.
- Allerton, C. 2018. "Impossible Children: Illegality and Excluded Belonging among Children of Migrants in Sabah, East Malaysia." *Journal of Ethnic and Migration Studies* 44 (7): 1081–97. <https://doi.org/10.1080/1369183X.2017.1357464>.
- Ang, J.W., A. Murugasu, and C.Y. Wei. 2018. "Low-Skilled Foreign Workers' Distortions to the Economy." *Bank Negara Malaysia*. Kuala Lumpur. https://www.bnm.gov.my/files/publication/ar/en/2017/cp01_001_box.pdf.
- Anwar, A., and M. Mughal. 2013. "The Role of Diaspora in Attracting Indian Outward FDI." *International Journal of Social Economics* 40 (11): 944–55. <https://doi.org/10.1108/IJSE-11-2011-0083>.
- Anwar, S. 2008. "Factor Mobility, Wage Inequality and Welfare." *International Review of Economics and Finance* 17: 495–506. <https://doi.org/10.1016/j.iref.2007.04.002>.
- Arango, J. 2004. "Theories of International Migration." In *International Migration in the New Millennium*, edited by D. Joly, 15–35. Aldershot, England: Ashgate Publishing Limited.
- Arbatli, C.E., Q.H. Ashraf, O. Galor, and M. Klemp. 2020. "Diversity and Conflict." *Econometrica* 88 (2): 727–97. <https://doi.org/10.3982/ecta13734>.
- Ardiyono, S.K., and A.A. Patunru. 2022. "The Impact of Employment Protection on FDI at Different Stages of Economic Development." *World Economy*, 1–36. <https://doi.org/10.1111/twec.13299>.
- Arif, I. 2020. "The Determinants of International Migration: Unbundling the Role of Economic, Political and Social Institutions." *World Economy* 43 (6): 1699–1729. <https://doi.org/10.1111/twec.12889>.
- Ariu, A., F. Docquier, and M.P. Squicciarini. 2016. "Governance Quality and Net Migration Flows." *Regional Science and Urban Economics* 60: 238–48. <https://doi.org/10.1016/j.regsciurbeco.2016.07.006>.
- Armstrong, S., and T. Westland. 2022. "The Lessons of the Economic War on Russia." *East Asia Forum*, March 20, 2022. <https://www.eastasiaforum.org/2022/03/20/the-lessons-of-the-economic-war-on-russia/>.
- Aroca, P., and W.F. Maloney. 2005. "Migration, Trade, and Foreign Direct Investment in Mexico." *World Bank Economic Review* 19 (3): 449–72. <https://doi.org/10.1093/wber/lhi017>.
- Artuc, E., F. Dé Ric Docquier, C. Parsons, and W. Bank. 2015. "A Global Assessment of Human Capital Mobility: The Role of Non-OECD Destinations." *World Development* 65: 6–26. <https://doi.org/10.1016/j.worlddev.2014.04.004>.
- Arya, V., R. Banerjee, and T. Cavoli. 2019. "Capital Flows to Asia and Latin America: Does Institutional Quality Matter?" *World Economy* 42 (7): 2039–69. <https://doi.org/10.1111/twec.12783>.
- ASEAN Secretariat. 2019. "RCEP Legal Text - Chapter 10." RCEP Agreement. 2019. <https://rcepsec.org/legal-text/>.
- . 2023. *A Special ASEAN Investment Report 2023*. Jakarta. <https://asean.org/book/asean-investment-report-2023/>.
- Asian Development Bank. 2023. *Asian Economic Integration Report 2023: Trade, Investments, and Climate Change in Asia and the Pacific*. Manila: Asian Development Bank. www.adb.org.
- Asian Development Bank Institute, Organisation for Economic Co-operation and Development, and International Labour Organization. 2016. *Labor Migration in Asia: Building Effective Institutions*. Authors. www.ilo.org/asia.
- Athukorala, P., and S. Waglé. 2011. "Foreign Direct Investment in Southeast Asia-Is Malaysia Falling Behind?" *Asean Economic Bulletin* 28 (2): 115–33. <https://doi.org/10.1355/ae28-2b>.
- Atolia, M., P. Loungani, M. Marquis, and C. Papageorgiou. 2020. "Rethinking Development Policy: What Remains of Structural Transformation?" *World Development* 128: 1–13.

<https://doi.org/10.1016/j.worlddev.2019.104834>.

- Australian Bureau of Statistics (ABS). 2019. "Historical Population." 2019. <https://www.abs.gov.au/statistics/people/population/historical-population/latest-release>.
- . 2021a. "Australian National Accounts: National Income, Expenditure and Product." 2021. <https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/latest-release>.
- . 2021b. "Average Weekly Earnings, Australia, May 2021." 2021. <https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/average-weekly-earnings-australia/latest-release>.
- . 2021c. "Migration, Australia." 2021. <https://www.abs.gov.au/statistics/people/population/migration-australia/latest-release#data-download>.
- . 2021d. "Overseas Arrivals and Departures." 2021. <https://www.abs.gov.au/statistics/industry/tourism-and-transport/overseas-arrivals-and-departures-australia/latest-release#data-download>.
- . 2022a. "Historical Census Data." Australian Census Data. 2022. <https://www.abs.gov.au/census/find-census-data/historical>.
- . 2022b. "International Investment Position." Balance of Payments and International Investment Position. 2022. <https://www.abs.gov.au/statistics/economy/international-trade/balance-payments-and-international-investment-position-australia/dec-2021>.
- Australian Government. 1948. *Nationality and Citizenship Act 1948*. Australia. <https://www.legislation.gov.au/Details/C1948A00083>.
- . 1958. *Migration Act 1958*. Australia: Australian Government. <https://www.legislation.gov.au/Details/C1958A00062>.
- . 1975. *Foreign Acquisitions and Takeovers Act 1975*. Australia. <https://www.legislation.gov.au/Details/C2023C00422>.
- . 1989a. *Foreign Acquisitions and Takeovers Regulation 1989*. Australia. http://classic.austlii.edu.au/au/legis/cth/num_reg/faatr1989n177491/.
- . 1989b. *Migration Legislation Amendment Act 1989*. <https://www.legislation.gov.au/Details/C2004A03807>.
- . 1992. *Qantas Sale Act 1992. Federal Register of Legislation*. Australian Government. <https://www.legislation.gov.au/Series/C2004A04487>.
- . 1995a. *Qantas Sale Amendment Act 1995. Federal Register of Legislation*. Australian Government. <https://www.legislation.gov.au/Details/C2004A04897>.
- . 1995b. *Foreign Acquisitions and Takeovers Regulations (Amendment). Federal Register of Legislation*. Australian Government. <https://www.legislation.gov.au/Details/F1996B00562>.
- . 2001. *Migration Legislation Amendment Act (No. 1) 2001*. Australia: Federal Register of Legislation. <https://www.legislation.gov.au/Details/C2004A00889>.
- . 2019. "Foreign Acquisitions and Takeovers Fees Imposition Amendment (Near-New Dwelling Interests) Bill 2019." 2019. https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bid=r6438.
- Australian Human Rights Commissioner. 2016. "The Success of Australia's Multiculturalism." *Speech to Sydney Institute*. Sydney: Australian Human Rights Commission. <https://humanrights.gov.au/about/news/speeches/success-australias-multiculturalism>.
- Australian Treasury. n.d. "Foreign Investment Review Board Annual Reports (Various Years)." Canberra. Accessed February 11, 2023. <https://firb.gov.au/about-firb/publications>.

- . 1968. *Overseas Investment in Australia*. Canberra: Australian Government. <https://catalogue.nla.gov.au/Record/539312>.
- . 1999. "Foreign Investment Policy in Australia-A Brief History and Recent Developments." Spring. Economic Roundup. Canberra. <https://treasury.gov.au/publication/economic-roundup-spring-1999/foreign-investment-in-australia-a-brief-history-and-recent-developments>.
- Aydemir, A. 2011. "Immigrant Selection and Short-Term Labor Market Outcomes by Visa Category." *Journal of Population Economics* 24 (2): 451–75. <https://doi.org/10.1007/S00148-009-0285-0>.
- Azzimonti, M. 2018. "The Politics of FDI Expropriation." *International Economic Review* 59 (2): 479–510. <https://doi.org/10.1111/iere.12277>.
- Badawi, A. 2007. "The 2008 Budget Speech." Putrajaya: Government of Malaysia. <http://lampiran1.hasil.gov.my/pdf/pdfam/Speech2008.pdf>.
- Bahar, D., and H. Rapoport. 2018. "Migration, Knowledge Diffusion and the Comparative Advantage of Nations." *Economic Journal* 128 (612): F273–305. <https://doi.org/10.1111/ecej.12450>.
- Baláž, V., A.M. Williams, K. Moravčíková, and M. Chrančoková. 2021. "What Competences, Which Migrants? Tacit and Explicit Knowledge Acquired via Migration." *Journal of Ethnic and Migration Studies* 47 (8): 1758–74. <https://doi.org/10.1080/1369183X.2019.1679409>.
- Baldwin, R., and A.J. Venables. 1994. "International Migration, Capital Mobility and Transitional Dynamics." *Economica* 61 (243): 285–300. <https://doi.org/0013-0427>.
- Bang, J.T., and R. MacDermott. 2019. "Does FDI Attract Immigrants? An Empirical Gravity Model Approach." *International Migration Review* 53 (1): 237–53. <https://doi.org/10.1177/0197918318768554>.
- Banga, R. 2007. "Drivers of Outward Foreign Direct Investment from Asian Developing Economies." In *Towards Coherent Policy Frameworks: Understanding Trade and Investment Linkages*, 195–215. New York: UNESCAP. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.577.5958&rep=rep1&type=pdf>.
- Bank Negara Malaysia (BNM). n.d. "Annual Report (Various Years)." Kuala Lumpur: Bank Negara Malaysia.
- . n.d. "Monthly Statistical Bulletins (Various Years)." Kuala Lumpur.
- . 2021. "Economic and Monetary Review 2020." Kuala Lumpur. <https://www.bnm.gov.my/publications/emr2022>.
- Bao, C.G., and M.X. Chen. 2018. "Foreign Rivals Are Coming to Town: Responding to the Threat of Foreign Multinational Entry." *American Economic Journal: Applied Economics* 10 (4): 120–57. <https://doi.org/10.1257/app.20170113>.
- Barge-Gil, A., A. López, and R. Núñez-Sánchez. 2020. "Technological Spillovers from Multinational Firms." *World Economy* 43 (12): 3184–3202. <https://doi.org/10.1111/twec.13001>.
- Barnes, J. 2022. "Suffering to Save Lives: Torture, Cruelty, and Moral Disengagement in Australia's Offshore Detention Centres." *Journal of Refugee Studies* 00: 1–22. <https://doi.org/10.1093/jrs/feac041>.
- Barro, R.J., and J.W. Lee. 2013. "A New Data Set of Educational Attainment in the World, 1950-2010." *Journal of Development Economics* 104 (September): 184–98. <https://doi.org/10.1016/j.jdevco.2012.10.001>.
- Barry, F. 2002. "Foreign Direct Investment, Infrastructure and the Welfare Effects of Labour Migration." *Manchester School* 70 (3): 364–79. <https://doi.org/10.1111/1467-9957.00307>.
- Bartram, D., and E. Jarochova. 2022. "A Longitudinal Investigation of Integration/Multiculturalism Policies and Attitudes towards Immigrants in European Countries." *Journal of Ethnic and Migration Studies* 48 (1): 153–72. <https://doi.org/10.1080/1369183X.2021.1922273>.
- Bashford, A. 2014. "Immigration Restriction: Rethinking Period and Place from Settler Colonies to Postcolonial Nations." *Journal of Global History* 9 (1): 26–48.

<https://doi.org/10.1017/S174002281300048X>.

- Bastide, L. 2021. "Incorporating Transnational Labour: Migration Rent, Combined Relocation, and Offshore Production Networks in Malaysia." *Migration Studies* 9 (3): 1250–68. <https://doi.org/10.1093/migration/mnz041>.
- Basu, S. 2017. "Wage Assimilation of Immigrants: A Comparison of 'new' and 'Old' Asian Source Countries." *Migration Studies* 5 (1): 1–28. <https://doi.org/10.1093/migration/mnw022>.
- Baudassé, T., R. Bazillier, and I. Issifou. 2018. "Migration and Institutions: Exit and Voice (From Abroad)?" *Journal of Economic Surveys* 32 (3): 727–66. <https://doi.org/10.1111/joes.12212>.
- Bazzi, S., G. Hanson, S. John, B. Roberts, and J. Whitley. 2021. "Deterring Illegal Entry: Migrant Sanctions and Recidivism in Border Apprehensions." *American Economic Journal: Economic Policy* 13 (3): 1–27. <https://doi.org/10.1257/pol.20190291>.
- Beaverstock, J. V, and J.T. Boardwell. 2000. "Negotiating Globalization, Transnational Corporations and Global City Financial Centres in Transient Migration Studies." *Applied Geography* 20: 277–304. [https://doi.org/10.1016/S0143-6228\(00\)00009-6](https://doi.org/10.1016/S0143-6228(00)00009-6).
- Bebbington, A. 1999. "Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty." *World Development* 27 (12): 2021–44. [https://doi.org/10.1016/S0305-750X\(99\)00104-7](https://doi.org/10.1016/S0305-750X(99)00104-7).
- Beduschi, A. 2021. "International Migration Management in the Age of Artificial Intelligence." *Migration Studies* 9 (3): 576–96. <https://doi.org/10.1093/migration/mnaa003>.
- Beerli, A., J. Ruffner, M. Siegenthaler, and G. Peri. 2021. "The Abolition of Immigration Restrictions and the Performance of Firms and Workers: Evidence from Switzerland." *American Economic Review* 111 (3): 976–1012. <https://doi.org/10.1257/aer.20181779>.
- Beine, M., A. Boucher, B. Burgoon, M. Crock, J. Gest, M. Hiscox, P. McGovern, H. Rapoport, J. Schaper, and E. Thielemann. 2016. "Comparing Immigration Policies: An Overview from the IMPALA Database." *International Migration Review* 50 (4): 827–63. <https://doi.org/10.1111/imre.12169>.
- Beine, M., F. Docquier, and H. Rapoport. 2001. "Brain Drain and Economic Growth: Theory and Evidence." *Journal of Development Economics* 64 (1): 275–89. [https://doi.org/10.1016/S0304-3878\(00\)00133-4](https://doi.org/10.1016/S0304-3878(00)00133-4).
- Beine, M., F. Docquier, and H. Rapoport. 2008. "Brain Drain and Human Capital Formation in Developing Countries: Winners and Losers." *The Economic Journal* 118 (528): 631–52. <https://doi.org/10.1111/j.1468-0297.2008.02135.x>.
- Beine, M., and C. Parsons. 2015. "Climatic Factors as Determinants of International Migration." *The Scandinavian Journal of Economics* 117 (2): 723–67. <https://doi.org/10.1111/sjoe.12098>.
- Bell, H.F. 1976. "Australian Government Policy in Relation to Foreign Investment." *The Australian Quarterly* 48 (1): 44. <https://doi.org/10.2307/20634828>.
- Bello, V. 2022. "The Spiralling of the Securitisation of Migration in the EU: From the Management of a 'Crisis' to a Governance of Human Mobility?" *Journal of Ethnic and Migration Studies* 48 (6): 1327–44. <https://doi.org/10.1080/1369183X.2020.1851464>.
- Bénassy-Quéré, A., M. Coupet, and T. Mayer. 2005. "Institutional Determinants of Foreign Direct Investment." 2005–05. Working Paper. <https://doi.org/10.1.1.182.6961>.
- Bernhardt, T., and R. Pollak. 2015. "Economic and Social Upgrading Dynamics in Global Manufacturing Value Chains: A Comparative Analysis." 150. *FIW Working Paper*. FIW Working Paper. Vienna. <https://doi.org/10.1177/0308518X15614683>.
- Bertocchi, G., and C. Strozzi. 2008. "International Migration and the Role of Institutions." *Public Choice* 137 (1): 81–102. <https://doi.org/10.1007/S11127-008-9314-X>.
- Bertoli, S., J.F.H. Moraga, and L. Guichard. 2020. "Rational Inattention and Migration Decisions." *Journal of International Economics* 126. <https://doi.org/10.1016/j.jinteco.2020.103364>.
- Bhagwati, J.N., and T.N. Srinivasan. 1983. "On the Choice between Capital and Labour Mobility." *Journal*

- of *International Economics* 14 (3–4): 209–21. [https://doi.org/10.1016/0022-1996\(83\)90001-6](https://doi.org/10.1016/0022-1996(83)90001-6).
- Bhattacharjee, R.B. 2020. “Politics and Policy: Postpone Policies That Will Cost Jobs, Economist Tells Government.” *The Edge*, July 23, 2020. <https://www.theedgemarkets.com/article/politics-and-policy-postpone-policies-will-cost-jobs-economist-tells-government>.
- Blalock, G., and P.J. Gertler. 2008. “Welfare Gains from Foreign Direct Investment through Technology Transfer to Local Suppliers.” *Journal of International Economics* 74 (2): 402–21. <https://doi.org/10.1016/j.jinteco.2007.05.011>.
- Blomström, M., and A. Kokko. 1998. “Multinational Corporations and Spillovers.” *Journal of Economic Surveys* 12 (2): 1–31. <https://doi.org/10.1111/1467-6419.00056>.
- Blonigen, B.A., and J. Piger. 2014. “Determinants of Foreign Direct Investment.” *The Canadian Journal of Economics* 47 (3): 775–812. <https://doi.org/10.1111/caje.12091>.
- Böhmelt, T. 2021. “How Public Opinion Steers National Immigration Policies.” *Migration Studies* 9 (3): 1461–79. <https://doi.org/10.1093/migration/mnz039>.
- Bollard, A., D. McKenzie, M. Morten, and H. Rapoport. 2011. “Remittances and the Brain Drain Revisited: The Microdata Show That More Educated Migrants Remit More.” *The World Bank Economic Review* 25 (1): 132–56. <https://doi.org/10.1093/wber/lhr013>.
- Bonadio, B., Z. Huo, A.A. Levchenko, and N. Pandalai-Nayar. 2021. “Global Supply Chains in the Pandemic.” *Journal of International Economics* 133: 23. <https://doi.org/10.1016/j.jinteco.2021.103534>.
- Booth, A. 2004. “Linking, de-Linking and Re-Linking: Southeast Asia in the Global Economy in the Twentieth Century.” *Australian Economic History Review* 44 (1): 35–51. <https://doi.org/10.1111/j.1467-8446.2004.00109.x>.
- Borensztein, E., J. De Gregorio, and J.-W. Lee. 1998. “How Does Foreign Direct Investment Affect Economic Growth?” *Journal of International Economics* 45: 115–35. [https://doi.org/10.1016/S0022-1996\(97\)00033-0](https://doi.org/10.1016/S0022-1996(97)00033-0).
- Borjas, G.J. 1987. “Self-Selection and the Earnings of Immigrants.” *The American Economic Review* 77 (4): 531–53. <https://www.jstor.org/stable/1814529>.
- . 1989. “Economic Theory and International Migration.” *International Migration Review* 23 (3): 457–85. <https://doi.org/10.1177/019791838902300304>.
- . 2003. “The Labor Demand Curve Is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market.” *Quarterly Journal of Economics* 118 (4): 1335–74. <https://doi.org/10.1162/003355303322552810>.
- . 2014. *Immigration Economics*. Cambridge, Massachusetts: Harvard University Press.
- . 2015. “The Slowdown in the Economic Assimilation of Immigrants: Aging and Cohort Effects Revisited Again.” *Journal of Human Capital* 9 (4): 483–517. https://doi.org/10.1142/9789811240812_0003.
- Bornschier, V., and J.-P. Hoby. 1981. “Economic Policy and Multinational Corporations in Development: The Measurable Impacts in Cross-National Perspective.” *Social Problems* 28 (4): 363–77. <https://doi.org/10.2307/800050>.
- Boswell, C. 2007. “Theorizing Migration Policy: Is There a Third Way?” *The International Migration Review* 41 (1): 75–100. <https://doi.org/10.1111/j.1747-7379.2007.00057.x>.
- Boucher, A. 2016. “Australia’s de Facto Low Skilled Migration Program.” In *Migration: The Economic Debate*, 43–54. Melbourne: Committee for Economic Development of Australia. <https://www.ceda.com.au/ResearchAndPolicies/Research/Population/Migration-the-economic-debate>.
- . 2019. “Measuring Migrant Worker Rights Violations in Practice: The Example of Temporary Skilled Visas in Australia.” *Journal of Industrial Relations* 61 (2): 277–301. <https://doi.org/10.1177/0022185618783001>.

- Boucher, A., R. Breunig, and C. Karmel. 2022. "A Preliminary Literature Review on the Effect of Immigration On Australian Domestic Employment and Wages." *Australian Economic Review* 55 (2): 263–72. <https://doi.org/10.1111/1467-8462.12470>.
- Boucher, A., and A. Davidson. 2019. "The Evolution of the Australian System for Selecting Economic Immigrants." www.migrationpolicy.org.
- Bove, V., and L. Elia. 2017. "Migration, Diversity, and Economic Growth." *World Development* 89: 227–39. <https://doi.org/10.1016/j.worlddev.2016.08.012>.
- Bowen, C. 2008. "Rudd Government Moves To Make Administrative Changes To Foreign Investment Review Process." Canberra: Australian Government. <https://webarchive.nla.gov.au/awa/20090525015422/http://pandora.nla.gov.au/pan/84508/20090524-0001/assistant.treasurer.gov.au/DisplayDocs5e52.html>.
- BP. 2019. "BP Statistical Review of World Energy." 2019. <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>.
- Bradford, S. 2021. "A Global Model of Migration and Poverty." *World Economy* 44 (4): 1018–30. <https://doi.org/10.1111/twec.13051>.
- Bratsberg, B., J.F. Ragan, and Z.M. Nasir. 2002. "The Effect of Naturalization on Wage Growth: A Panel Study of Young Male Immigrants." *Journal of Labor Economics* 20 (3): 568–97. <https://doi.org/10.1086/339616>.
- Brenton, P., M.J. Ferrantino, and M. Maliszewska. 2022. "Reshaping Global Value Chains in Light of COVID-19." Washington. <https://openknowledge.worldbank.org/handle/10986/37032>.
- Breunig, R., N. Deutscher, and H.T. To. 2017. "The Relationship between Immigration to Australia and the Labour Market Outcomes of Australian-Born Workers." *Economic Record* 93 (301): 255–76. <https://doi.org/10.1111/1475-4932.12328>.
- Brücker, H., A. Glitz, A. Lerche, and A. Romiti. 2021. "Occupational Recognition and Immigrant Labor Market Outcomes." *Journal of Labor Economics* 39 (2): 497–525. <https://doi.org/10.1086/710702>.
- Buang, S. 2017. "Foreign Ownership of Land, Clear Policy Needed." *New Straits Times*, January 12, 2017. <https://www.nst.com.my/news/2017/01/203696/foreign-ownership-land-clear-policy-needed>.
- Buch, C.M., J. Kleinert, and F. Toubal. 2006. "Where Enterprises Lead, People Follow? Links between Migration and FDI in Germany." *European Economic Review* 50 (8): 2017–36. <https://doi.org/10.1016/j.euroecorev.2005.11.002>.
- Buchardi, K., T. Chaney, and T. Hassan. 2019. "Migrants, Ancestors and Foreign Investments." *Review of Economic Studies* 86 (4): 1448–86. <https://doi.org/10.1093/restud/rdy044i>.
- Bui, M.T.T. 2019. "International Migration and Foreign Direct Investment within Southeast Asia." *Asia-Pacific Journal of Regional Science* 3 (3): 731–55. <https://doi.org/10.1007/S41685-019-00108-9/TABLES/6>.
- Büscher, B., G. Feola, A. Fischer, R. Fletcher, J.F. Gerber, W. Harcourt, M. Koster, et al. 2021. "Planning for a World beyond COVID-19: Five Pillars for Post-Neoliberal Development." *World Development* 140: 1–4. <https://doi.org/10.1016/j.worlddev.2020.105357>.
- Buzdugan, S.R., and H. Tuselmann. 2018. "Making the Most of FDI for Development: 'New' Industrial Policy and FDI Deepening for Industrial Upgrading." *Transnational Corporations* 25 (1): 1–21. <http://e-space.mmu.ac.uk/620266/>.
- Candau, F. 2013. "Trade, FDI and Migration." *International Economic Journal* 27 (3): 441–61. <https://doi.org/10.1080/10168737.2012.676058>.
- Card, D. 1990. "The Impact of the Mariel Boatlift on the Miami Labor Market." *Industrial and Labor Relations Review* 43 (2): 245–57. <https://doi.org/10.1177/001979399004300205>.
- . 2001. "Immigrant Inflows, Native Outflows, and the Local Market Impacts of Higher Immigration." *Journal of Labor Economics* 19 (1): 22–64. <https://doi.org/10.1086/209979>.

- Carkovic, M., and R.E. Levine. 2005. "Does Foreign Direct Investment Accelerate Economic Growth?" In *Does Foreign Direct Investment Promote Development*, edited by T. Moran, E. Graham, and M. Blomstrom, 1st ed., 195–220. Peterson Institute for International Economics. <https://doi.org/10.2139/ssrn.314924>.
- Carling, J., and F. Collins. 2018. "Aspiration, Desire and Drivers of Migration." *Journal of Ethnic and Migration Studies* 44 (6): 909–26. <https://doi.org/10.1080/1369183X.2017.1384134>.
- Carpio, X. Del, R. Karupiah, M. Marouani, C. Ozden, M. Testaverde, and M. Wagner. 2013. "Immigration in Malaysia: Assessment of Its Economic Effects, and a Review of the Policy and System." https://www.researchgate.net/publication/334770768_Immigration_in_Malaysia_Assessment_of_its_Economic_Effects_and_a_Review_of_the_Policy_and_System_In_collaboration_with_the_National_Institute_of_Labour_Market_Information_and_Analysis_ILMIA.
- Carpio, X. Del, C. Ozden, M. Testaverde, M. Marouanib, B. Nilssond, and M. Wagnerr. 2015. "Foreign Workers in Malaysia: Labour Market and Firm Level Analysis." *Malaysian Journal of Economic Studies* 52 (1): 1–19. <https://myjurnal.mohe.gov.my/public/article-view.php?id=84958>.
- Carter, S.B., and R. Sutch. 2013. "Why the Settlers Soared: The Dynamics of Immigration and Economic Growth in the 'Golden Age' for Settler Societies." In *Settler Economies in World History*, edited by C. Lloyd, J. Metzger, and R. Sutch, 37–64. Leiden: Brill.
- Castles, S. 2009. "Development and Migration or Migration and Development: What Comes First?" *Asian and Pacific Migration Journal* 18 (4): 225–55. <https://doi.org/10.4337/9781788112376.00019>.
- Castles, S., G. Hugo, and E. Vasta. 2013. "Rethinking Migration and Diversity in Australia: Introduction." *Journal of Intercultural Studies* 34 (2): 115–21. <https://doi.org/10.1080/07256868.2013.781915>.
- Catrinescu, N., M. Leon-Ledesma, M. Piracha, and B. Quillin. 2009. "Remittances, Institutions, and Economic Growth." *World Development* 37 (1): 81–92. <https://doi.org/10.1016/J.WORLDDEV.2008.02.004>.
- Cazachevici, A., T. Havranek, and R. Horvath. 2020. "Remittances and Economic Growth: A Meta-Analysis." *World Development* 134: 17. <https://doi.org/10.1016/j.worlddev.2020.105021>.
- CEDA. 2019. "Effects of Temporary Migration; Shaping Australia's Society and Economy." Melbourne. <https://www.ceda.com.au/ResearchAndPolicies/Research/Population/Effects-of-temporary-migration>.
- Center for Systemic Peace. 2019. "State Fragility Index and Matrix, 1995-2017." 2019. <http://www.systemicpeace.org/inscrdata.html>.
- Chai, Y.T., and O.C. Im. 2009. "The Development of Free Industrial Zones-The Malaysian Experience."
- Chan, J.M.L., and H. Zheng. 2022. "FDI on the Move: Cross-Border M&A and Migrant Networks." *Review of World Economics* 158 (3): 947–85. <https://doi.org/10.1007/S10290-021-00450-1/TABLES/14>.
- Chanegriha, M., C. Stewart, and C. Tsoukis. 2017. "Identifying the Robust Economic, Geographical and Political Determinants of FDI: An Extreme Bounds Analysis." *Empirical Economics* 52 (2): 759–76. <https://doi.org/10.1007/s00181-016-1097-1>.
- Chassamboulli, A., and G. Peri. 2020. "The Economic Effect of Immigration Policies: Analyzing and Simulating the U.S. Case." *Journal of Economic Dynamics & Control* 114: 1–23. <https://doi.org/10.1016/j.jedc.2020.103898>.
- Chen, H., and T. Chen. 1998. "Network Linkages and Location Choice in Foreign Direct Investment." *Journal of International Business Studies* 29 (3): 445–67. <https://doi.org/10.1057/palgrave.jibs.8490002>.
- Chen, M.X., and C. Lin. 2020. "Geographic Connectivity and Cross-Border Investment: The Belts, Roads and Skies." *Journal of Development Economics* 146: 1–13. <https://doi.org/10.1016/j.jdeveco.2020.102469>.
- Chen, Y., I.J. Horstmann, and J.R. Markusen. 2012. "Physical Capital, Knowledge Capital, and the Choice between FDI and Outsourcing." *Canadian Journal of Economics* 45 (1): 1–15.

<https://doi.org/10.1111/j.1540-5982.2011.01684.x>.

- Cheng, L.K., and K.-Y. Wong. 1997. "Strategic Policies towards International Factor Movement." *The Canadian Journal of Economics* 30 (2): 456–78. <https://www.jstor.org/stable/pdf/136351.pdf>.
- Cheok, K. 2020. "Foreign Direct Investment: Changes in Malaysia." King & Wood Mallesons. August 27, 2020. <https://www.kwm.com/au/en/insights/latest-thinking/fdi-malaysia.html>.
- Cheong, A.R. 2021. "Legal Histories as Determinants of Incorporation: Previous Undocumented Experience and Naturalization Propensities Among Immigrants in the United States." *International Migration Review* 55 (2): 482–513. <https://doi.org/10.1177/0197918320934714>.
- Chih, Y.Y., R.P. Kishan, and A. Ojede. 2022. "Be Good to Thy Neighbours: A Spatial Analysis of Foreign Direct Investment and Economic Growth in Sub-Saharan Africa." *World Economy* 45 (3): 657–701. <https://doi.org/10.1111/twec.13167>.
- Chin, C.B.N. 2002. "The 'Host' State and the 'Guest' Worker in Malaysia: Public Management and Migrant Labour in Times of Economic Prosperity and Crisis." *Asia Pacific Business Review* 8 (4): 19–40. <https://doi.org/10.1080/713999163>.
- Chin, L.C. 2016. "Immigration Control during the Malayan Emergency: Borders, Belonging and Citizenship, 1948-1960." *Journal of the Malaysian Branch of the Royal Asiatic Society* 89: 35–59. <https://doi.org/10.1353/ras.2016.0010>.
- . 2017. "Report on Citizenship Law: Malaysia and Singapore." <http://www.eui.eu/RSCAS/Publications/>.
- Cho, J. 2018. "Knowledge Transfer to Foreign Affiliates of Multinationals through Expatriation." *Journal of International Economics* 113: 106–17. <https://doi.org/10.1016/j.jinteco.2018.04.006>.
- Chuatico, G., and M. Haan. 2022. "Bonding Social Ties: Relative Human Capital and Immigrant Network Choices." *Journal of Ethnic and Migration Studies* 48 (7): 1690–1710. <https://doi.org/10.1080/1369183X.2020.1756761>.
- Chung, E.A. 2021. "How South Korean Demographics Are Affecting Immigration and Social Change." *Carnegie*, June 29, 2021. <https://carnegieendowment.org/2021/06/29/how-south-korean-demographics-are-affecting-immigration-and-social-change-pub-84819>.
- Cieřlik, A., and Ł. Goczek. 2018. "Control of Corruption, International Investment, and Economic Growth – Evidence from Panel Data." *World Development* 103: 323–35. <https://doi.org/10.1016/j.worlddev.2017.10.028>.
- Clark, X., T.J. Hatton, and J.G. Williamson. 2007. "Explaining U.S. Immigration, 1971-1998." *The Review of Economics and Statistics* 89 (2): 359–73. <https://doi.org/10.1162/rest.89.2.359>.
- Clarke, A., A. Ferrer, and M. Skuterud. 2019. "A Comparative Analysis of the Labor Market Performance of University-Educated Immigrants in Australia, Canada, and the United States: Does Policy Matter?" *Journal of Labor Economics* 37 (S2): S443–90. <https://doi.org/10.1086/703256>.
- Clemens, M.A. 2011. "Economics and Emigration: Trillion-Dollar Bills on the Sidewalk?" *Journal of Economic Perspectives* 25 (3): 83–106. <https://doi.org/10.1257/jep.25.3.83>.
- . 2014. "Does Development Reduce Migration?" 8592. Discussion Paper. <http://ftp.iza.org/dp8592.pdf>.
- . 2020. "The Emigration Life Cycle : How Development Shapes Emigration from Poor Countries." 13614. Discussion Paper Series. Bonn.
- Clemens, M.A., C.E. Montenegro, and L. Pritchett. 2009. "The Place Premium: Wage Differences for Identical Workers Across the US Border Michael A. Clemens Center for Global Development The Place Premium: Wage Differences for Identical Workers across the US Border." 09–004. HKS Faculty Research Working Paper. https://dash.harvard.edu/bitstream/handle/1/4412631/Clemens_Place_Premium.pdf?sequence=1.
- Clemens, M.A., C.E. Montenegro, and L. Pritchett. 2019. "The Place Premium: Bounding the Price Equivalent of Migration Barriers." *Review of Economics and Statistics* 101 (2): 201–13.

https://doi.org/10.1162/rest_a_00776.

- Clemens, M.A., and H.M. Postel. 2018. "Deterring Emigration with Foreign Aid: An Overview of Evidence from Low-Income Countries." *Population and Development Review* 44 (4): 667–93. <https://doi.org/10.1111/padr.12184>.
- Clemens, M.A., and L. Pritchett. 2019. "The New Economic Case for Migration Restrictions: An Assessment." *Journal of Development Economics* 138: 153–64. <https://doi.org/10.1016/j.jdeveco.2018.12.003>.
- Clemens, M.A., and J.G. Williamson. 2000. "Where Did British Foreign Capital Go? Fundamentals, Failures and the Lucas Paradox 1870-1913." 8028. Working Paper. <https://core.ac.uk/download/pdf/6606273.pdf>.
- Clibborn, S., and C.F. Wright. 2020. "COVID-19 and the Policy-Induced Vulnerabilities of Temporary Migrant Workers in Australia." *Journal of Australian Political Economy* 85: 62–70.
- . 2022. "The Efficiencies and Inequities of Australia's Temporary Labour Migration Regime." *Australian Economic Review* 55 (2): 254–62. <https://doi.org/10.1111/1467-8462.12466>.
- Cobb-Clark, D.A. 2002. "Public Policy and the Labor Market Adjustment of New Immigrants to Australia." 620. IZA Discussion Paper. Bonn. www.iza.org.
- Colic-Peisker, V. 2011. "'Ethnics' and 'Anglos' in the Labour Force: Advancing Australia Fair?" *Journal of Intercultural Studies* 32 (6): 637–54. <https://doi.org/10.1080/07256868.2011.618108>.
- Collins, J., and P. Kunz. 2007. "Ethnic Entrepreneurs, Ethnic Precincts and Tourism." In *Tourism, Creativity and Development*, edited by G. Richards and J. Wilson, 201–2014. London: Routledge.
- Comolli, P. 2018. "Migration, FDI, and Welfare." *Atlantic Economic Journal* 46: 179–88. <https://doi.org/10.1007/s11293-018-9579-5>.
- Coppedge, M., J. Gerring, S.I. Knutsen, Carl Henrik Lindberg, J. Teorell, N. Alizada, D. Altman, M. Bernhard, et al. 2021. "V-Dem [Country-Year/Country-Date] Dataset V11.1." Varieties of Democracy Project. 2021. <https://www.v-dem.net/en/data/data/v-dem-dataset-v111/>.
- Coppedge, M., J. Gerring, S.I. Knutsen, Carl Henrik Lindberg, J. Teorell, D. Altman, M. Bernhard, M.S. Fish, et al. 2019. "V-Dem [Country-Year/Country-Date] Dataset V9." Varieties of Democracy Project. 2019. <https://www.v-dem.net/en/data/data-version-9/>.
- Cornelius, W.A., and T. Tsuda. 2004. "Controlling Immigration: The Limits of Government Intervention." In *Controlling Immigration*, edited by W.A. Cornelius, T. Tsuda, P.L. Martin, and J.F. Hollifield, Second, 3–48. Stanford, US: Stanford University Press.
- Costanza, R., I. Kubiszewski, E. Giovannini, H. Lovins, J. McGlade, K.E. Pickett, K.V. Ragnarsdóttir, D. Roberts, R. De Vogli, and R. Wilkinson. 2014. "Development: Time to Leave GDP Behind." *Nature* 505 (7483): 283–85. <https://doi.org/10.1038/505283a>.
- Crawley, H., and J. Hagen-Zanker. 2018. "Deciding Where to Go: Policies, People and Perceptions Shaping Destination Preferences." *International Migration*, 1–16. <https://doi.org/10.1111/imig.12537>.
- Crock, M., and L. Berg. 2011. *Immigration, Refugees and Forced Migration: Law, Policy and Practice in Australia*. Federation Press.
- Cuadros, A., J. Martín-Montaner, and J. Paniagua. 2016. "Homeward Bound FDI: Are Migrants a Bridge over Troubled Finance?" *Economic Modelling* 58: 454–65. <https://doi.org/10.1016/j.econmod.2016.05.021>.
- . 2019. "Migration and FDI: The Role of Job Skills." *International Review of Economics and Finance* 59: 318–32. <https://doi.org/10.1016/j.iref.2018.09.007>.
- Cuervo-Cazurra, A. 2018. "Thanks but No Thanks: State-Owned Multinationals from Emerging Markets and Host-Country Policies." *Journal of International Business Policy* 1 (3–4): 128–56. <https://doi.org/10.1057/s42214-018-0009-9>.
- Czaika, M., and H. de Haas. 2014. "The Globalization of Migration: Has the World Become More

- Migratory?" *International Migration Review* 48 (2): 283–323. <https://doi.org/10.1111/imre.12095>.
- Czaika, M., and M. Hobolth. 2016. "Do Restrictive Asylum and Visa Policies Increase Irregular Migration into Europe?" *European Union Politics* 17 (3): 345–65. <https://doi.org/10.1177/1465116516633299>.
- Czaika, M., and C.R. Parsons. 2017. "The Gravity of High-Skilled Migration Policies." *Demography* 54: 603–30. <https://doi.org/10.1007/s13524-017-0559-1>.
- D'Agosto, E.D., N. Solferino, and G. Tria. 2006. "The Migration FDI Puzzle: Complements or Substitutes?" 90. Vol. 30. Research Paper. <https://doi.org/10.2139/ssrn.944460>.
- . 2013. "Does FDI Affect Migration Flows? The Role of Human Capital." *Migration Letters* 10 (3): 359–68.
- Dao, M.C., M. Das, Z. Koczan, and W. Lian. 2017. "Why Is Labor Receiving a Smaller Share of Global Income? Theory and Empirical Evidence." 169. *IMF Working Papers*. Working Paper. <https://doi.org/10.5089/9781484311042.001>.
- Dao, T.H., F. Docquier, C. Parsons, and G. Peri. 2018. "Migration and Development: Dissecting the Anatomy of the Mobility Transition." *Journal of Development Economics* 132: 88–101. <https://doi.org/10.1016/j.jdeveco.2017.12.003>.
- Dasgupta, S., A. Mody, and S. Sinha. 1996. "Japanese Multinationals in Asia." 1634. Policy Research Working Paper. <http://documents.worldbank.org/curated/en/232041468752111186/pdf/multi0page.pdf>.
- DataReportal. 2021. "DataReportal – Digital Australia Reports." 2021. <https://datareportal.com/reports/>.
- Dauvergne, C., and S. Marsden. 2011. "The Ideology of Temporary Labour Migration in the Post-Global Era." *Citizenship Studies*, Faculty publications, 18 (2): 224–42. http://commons.allard.ubc.ca/fac_pubs.
- Davies, R.B., and J.R. Markusen. 2021. "What Do Multinationals Do? The Structure of Multinational Firms' International Activities." *World Economy* 44 (12): 3444–81. <https://doi.org/10.1111/twec.13199>.
- Davis, D.R., and D.E. Weinstein. 2002. "Technological Superiority and the Losses from Migration." 8971. Working Paper Series. <https://doi.org/10.3386/w8971>.
- Davis, J.S., and M.B. Devereux. 2022. "Capital Controls for Crisis Management Policy in a Global Economy." *American Economic Journal: Macroeconomics* 14 (1): 60–82. <https://doi.org/10.1257/mac.20200073>.
- Debelle, G., and M. Plumb. 2006. "The Evolution of Exchange Rate Policy and Capital Controls in Australia." *Asian Economic Papers* 5 (2): 7–29. <https://doi.org/10.1162/asep.2006.5.2.7>.
- Delera, M., C. Pietrobelli, E. Calza, and A. Lavopa. 2022. "Does Value Chain Participation Facilitate the Adoption of Industry 4.0 Technologies in Developing Countries?" *World Development* 152: 14. <https://doi.org/10.1016/j.worlddev.2021.105788>.
- Delios, A., and I. Bjorkman. 2000. "Expatriate Staffing in Foreign Subsidiaries of Japanese Multinational Corporations in the PRC and the United States." *International Journal of Human Resource Management* 11 (2): 278–93. <https://doi.org/10.1080/095851900339873>.
- Delogu, M., F. Docquier, and J. Machado. 2018. "Globalizing Labor and the World Economy: The Role of Human Capital." *Journal of Economic Growth* 23 (2): 223–58. <https://doi.org/10.1007/s10887-017-9153-z>.
- Department of Education, Skills and Employment, A.G. 2021a. "2019 Student Summary Tables." 2021. <https://www.dese.gov.au/higher-education-statistics/resources/2019-student-summary-tables>.
- . 2021b. "Time Series Data 1949 – 2000." 2021. <https://www.dese.gov.au/higher-education-statistics/resources/time-series-data-1949-2000>.
- . 2021c. "Time Series Data 2003 – 2008." 2021. <https://www.dese.gov.au/higher-education-statistics/resources/time-series-data-2003-2008>.
- Department of Foreign Affairs and Trade. 2021. "Trade Time Series Data." 2021.

- <https://www.dfat.gov.au/trade/resources/trade-statistics/trade-time-series-data>.
- Department of Home Affairs. 2020. "Historical Migration Statistics." Data.Gov.Au. 2020. <https://data.gov.au/data/dataset/historical-migration-statistics>.
- . 2022. "Australian Migration Statistics." Australian Migration Statistics. 2022. <https://data.gov.au/data/dataset/australian-migration-statistics>.
- . 2023. "Review of the Migration System." Canberra. <https://www.homeaffairs.gov.au/reports-and-publications/reviews-and-inquiries/departmental-reviews/migration-system-for-australias-future>.
- Department of Immigration. n.d. "Consolidated Statistics, Various Years." Canberra: Australian Government. [https://catalogue.nla.gov.au/Record/2844463?lookfor=Graeme Hugo 1986 the
australian immigration points system&offset=10&max=1714387](https://catalogue.nla.gov.au/Record/2844463?lookfor=Graeme+Hugo+1986+the+australian+immigration+points+system&offset=10&max=1714387).
- . n.d. "Immigration Updates." Canberra: Department of Immigration.
- . n.d. "Monthly Statistical Bulletins (Various)." Canberra: Department of Immigration.
- Department of Immigration and Citizenship. 2012. "Fact Sheet 8 – Abolition of the 'White Australia' Policy." Canberra: Australian Government. https://www.europarl.europa.eu/meetdocs/2009_2014/documents/danz/dv/0220_13_1/0220_13_1en.pdf.
- Department of Immigration and Ethnic Affairs. 1978. *1788-1978: Australia and Immigration: A Review of Migration to Australia, Especially since the Second World War*. Canberra: Australian Government. <https://catalogue.nla.gov.au/Record/2812257>.
- Department of Immigration and Multicultural Affairs. 2001. *Immigration: Federation to Century's End, 1901-2000*. Canberra: Australian Government. <https://catalogue.nla.gov.au/Record/3025711>.
- Department of Statistics Malaysia (DOSM). n.d. *Malaysia Statistical Yearbook (Various Years)*. Kuala Lumpur: Government of Malaysia.
- . 2020. *Labour Force Survey (Various Years)*. Kuala Lumpur: Department of Statistics Malaysia.
- Devadason, E.S. 2020. "Links Between International Factor Flows and Labor Standards in Malaysia: Findings from a Stakeholder Survey." *Journal of Developing Societies* 36 (1): 95–117. <https://doi.org/10.1177/0169796X20907447>.
- Devadason, E.S., and W.M. Chan. 2014. "Policies and Laws Regulating Migrant Workers in Malaysia: A Critical Appraisal." *Journal of Contemporary Asia* 44 (1): 19–35. <https://doi.org/10.1080/00472336.2013.826420>.
- Dewit, G., H. Görg, and C. Montagna. 2003. "Should I Stay or Should I Go? A Note on Employment Protection, Domestic Anchorage, and FDI." 845. Discussion Paper. Bonn. www.iza.org.
- Diebold, F.X. 2017. *Forecasting in Economics. Forecasting in Economics, Business, Finance and Beyond*. 2017th ed. University of Pennsylvania. <http://www.ssc.upenn.edu/~fdiebold/Textbooks.html>.
- Dimant, E., T. Krieger, and D. Meierrieks. 2013. "The Effect of Corruption on Migration." *Applied Economics Letters* 20 (13): 1270–74. <https://doi.org/10.1080/13504851.2013.806776>.
- Dimant, E., T. Krieger, and M. Redlin. 2015. "A Crook Is a Crook... But Is He Still a Crook Abroad? On the Effect of Immigration on Destination-Country Corruption." *German Economic Review* 16 (4): 464–89. <https://doi.org/10.1111/geer.12064>.
- Docquier, F., and E. Lodigiani. 2010. "Skilled Migration and Business Networks." *Open Economies Review* 21: 565–88. <https://doi.org/10.1007/s11079-008-9102-8>.
- Docquier, F., and H. Rapoport. 2012. "Globalization, Brain Drain, and Development." *Journal of Economic Literature* 50 (3): 681–730. <https://doi.org/10.1257/jel.50.3.681>.
- Dogan, E., K.N. Wong, and M.M.C. Yap. 2017. "Vertical and Horizontal Spillovers from Foreign Direct Investment: Evidence from Malaysian Manufacturing." *Asian Economic Papers* 16 (3): 158–83. https://doi.org/10.1162/ASEP_A_00560.

- Dolman, B. 2008. "Migration, Trade and Investment." Staff Working Paper. Canberra. www.pc.gov.au.
- Dorn, D., and J. Zweimüller. 2021. "Migration and Labor Market Integration in Europe." *The Journal of Economic Perspectives* 35 (2): 49–76. <https://doi.org/10.2307/27008029>.
- Driffield, N. 2000. "FDI and the Labour Market: A Review of the Evidence and Policy Implications." *Oxford Review of Economic Policy* 16 (3): 90–103. <https://doi.org/10.1093/oxrep/16.3.90>.
- Drysdale, P. 1999. "Perspectives on Japanese Investment, Employment and Management In Australia." *Pacific Economic Papers* 4 (290): 52. <https://crawford.anu.edu.au/pdf/pep/pep-290.pdf>.
- . 2011. "A New Look at Chinese FDI in Australia." *China & World Economy* 19 (4): 54–73.
- Drysdale, P., S. Armstrong, and N. Thomas. 2015. "Chinese ODI and the Need to Reform Australia's Foreign Investment Regime." 117. EABER Working Papers. Canberra. https://eaber.org/wp-content/uploads/2016/03/EABER-Working-Paper-117-Drysdale_0.pdf.
- Du, J., Y. Lu, and Z. Tao. 2011. "Institutions and FDI Location Choice: The Role of Cultural Distances." *Journal of Asian Economics* 23: 210–23. <https://doi.org/10.1016/j.asieco.2010.11.008>.
- Dunning, J.H. 1976. "Trade, Location of Economic Activity and the MNE: A Search for an Eclectic Approach." In *The International Allocation of Economic Activity*, edited by B. Ohlin, P.-O. Hesselborn, and P.M. Wijkman, 395–418. Bath, UK: Macmillan Press Ltd. <https://www.jstor.org/stable/20642319>.
- . 2003. "Determinants of Foreign Direct Investment; Globalization-Induced Changes and the Role of Policies." In *Toward Pro-Poor Policies: Aid, Institutions and Globalization*, edited by B. Tungodden, N. Stern, and I. Kolstad, 279–90. Washington: International Bank for Reconstruction and Development/World Bank. <http://documents.worldbank.org/curated/en/851501468780335344/pdf/289950PAPER0ABCDE020030Europe.pdf#page=289>.
- Dunning, J.H., and S.M. Lundan. 2008. *Multinational Enterprises and the Global Economy*. Second. Cheltenham, UK: Edward Elgar. https://dipiufabc.files.wordpress.com/2015/06/dunning_multinational-enterprises-and-global-economy.pdf.
- Dustmann, C. 1999. "Temporary Migration, Human Capital, and Language Fluency of Migrants." *Scandinavian Journal of Economics* 101 (2): 297–314. <https://doi.org/10.1111/1467-9442.00158>.
- . 2000. "Temporary Migration and Economic Assimilation." 186. Discussion Papers. Bonn. <https://www.econstor.eu/bitstream/10419/21029/1/dp186.pdf>.
- Dustmann, C., I. Fadlon, and Y. Weiss. 2011. "Return Migration, Human Capital Accumulation and the Brain Drain." *Journal of Development Economics* 95 (1): 58–67. <https://doi.org/10.1016/j.jdeveco.2010.04.006>.
- Dustmann, C., and J.-S. Görlach. 2016. "The Economics of Temporary Migrations." *Journal of Economic Literature* 54 (1): 98–136. <https://doi.org/10.1257/jel.54.1.98>.
- Dustmann, C., U. Schonberg, and J. Stuhler. 2017. "Labor Supply Shocks, Native Wages, and the Adjustment of Local Employment." *Quarterly Journal of Economics* 132 (1): 435–83. <https://doi.org/10.1093/qje/qjw032>.
- Edgington, D., and R. Hayter. 2013. "The In Situ Upgrading of Japanese Electronics Firms in Malaysian Industrial Clusters." *Economic Geography* 89 (3): 227–59. <https://doi.org/10.1111/ecge.12007>.
- Egger, H., E. Jahn, and S. Kornitzky. 2020. "Reassessing the Foreign Ownership Wage Premium in Germany." *World Economy* 43 (2): 302–25. <https://doi.org/10.1111/twec.12910>.
- El-Mallakh, N., and J. Wahba. 2021. "Upward or Downward: Occupational Mobility and Return Migration." *World Development* 137: 13. <https://doi.org/10.1016/j.worlddev.2020.105203>.
- Elias, A., and Y. Paradies. 2016. "The Regional Impact of Cultural Diversity on Wages: Evidence from Australia." *IZA Journal of Migration* 5 (12): 24. <https://doi.org/10.1186/s40176-016-0060-4>.
- Elrick, J. 2022. "Bureaucratic Implementation Practices and the Making of Canada's Merit-Based

- Immigration Policy.” *Journal of Ethnic and Migration Studies* 48 (1): 110–28. <https://doi.org/10.1080/1369183X.2020.1817731>.
- Enderwick, P. 2005. “Attracting ‘Desirable’ FDI: Theory and Evidence.” *Transnational Corporations* 14 (2): 93–120. <http://www.unctad.org/TNC>.
- Engerman, S.L., and K.L. Sokoloff. 2002. “Factor Endowments, Inequality, and Paths of Development among New World Economies.” 9259. Working Paper. <https://doi.org/10.3386/w9259>.
- Erten, B., A. Korinek, and J. Antonio Ocampo. 2021. “Capital Controls: Theory and Evidence.” *Journal of Economic Literature* 59 (1): 45–89. <https://doi.org/10.1257/jel.20191457>.
- Esipova, N., A. Pugliese, and J. Ray. 2018. “More Than 750 Million Worldwide Would Migrate If They Could.” Gallup Website. 2018. <https://news.gallup.com/poll/245255/750-million-worldwide-migrate.aspx>.
- Eswaran, V. 2019. “The Business Case For Diversity Is Now Overwhelming. Here’s.” World Economic Forum. 2019. <https://www.weforum.org/agenda/2019/04/business-case-for-diversity-in-the-workplace/>.
- Ethier, W.J. 1985. “International Trade and Labor Migration.” *The American Economic Review*. Vol. 75. <https://www.jstor.org/stable/1821348>.
- Etzo, I., and S. Takaoka. 2018. “The Impact of Migration on the Cross-Border M&A: Some Evidence for Japan.” *World Economy* 41 (9): 2464–90. <https://doi.org/10.1111/twec.12615>.
- Facchini, G., Y. Margalit, and H. Nakata. 2022. “Countering Public Opposition to Immigration: The Impact of Information Campaigns.” *European Economic Review* 141: 1–14. <https://doi.org/10.1016/j.euroecorev.2021.103959>.
- Facchini, G., and C. Testa. 2021. “The Rhetoric of Closed Borders: Quotas, Lax Enforcement and Illegal Immigration.” *Journal of International Economics* 129: 1–15. <https://doi.org/10.1016/j.jinteco.2020.103415>.
- Faini, R., and A. Venturini. 2010. “Development and Migration: Lessons from Southern Europe.” In *Frontiers of Economics and Globalization: Migration and Culture*, edited by G.S. Epstein and I.N. Gang, 8:105–36. Emerald Group Publishing Limited. [https://doi.org/10.1108/S1574-8715\(2010\)0000008011](https://doi.org/10.1108/S1574-8715(2010)0000008011).
- Faist, T. 1997. “The Crucial Meso-Level.” In *International Migration, Immobility and Development*, edited by T. Hammar, G. Brochmann, K. Tomas, and T. Faist, 187–219. Oxford, UK: Berg.
- Fajgelbaum, P.D., P. Goldberg, P. Kennedy, A.K. Khandelwal, and D. Taglioni. 2022. “The US-China Trade War and Global Reallocations.” 9894. *Policy Research Working Paper*. Policy Research Working Paper. Washington. <https://doi.org/10.2139/ssrn.3983916>.
- Fajgelbaum, P.D., P.K. Goldberg, P.J. Kennedy, and A.K. Khandelwal. 2020. “The Return to Protectionism.” *Quarterly Journal of Economics* 135 (1): 1–55. <https://doi.org/10.1093/qje/qjs020>. Advance.
- Falvey, R., and N. Foster-McGregor. 2018. “North-South Foreign Direct Investment and Bilateral Investment Treaties.” *World Economy* 41 (1): 2–28. <https://doi.org/10.1111/twec.12539>.
- FAO. 2019. “FAOSTAT.” Food and Agriculture Organization of the United Nations. 2019. <http://www.fao.org/faostat/en/#data/RF>.
- Federici, D., and M. Giannetti. 2010. “Temporary Migration and Foreign Direct Investment.” *Open Economies Review* 21: 293–308. <https://doi.org/10.1007/s11079-008-9092-6>.
- Feenstra, R.C., and G.H. Hanson. 1997. “Foreign Direct Investment and Relative Wages: Evidence from Mexico’s Maquiladoras.” *Journal of International Economics* 42: 371–93. [https://doi.org/10.1016/S0022-1996\(96\)01475-4](https://doi.org/10.1016/S0022-1996(96)01475-4).
- Feenstra, R.C., R. Inklaar, M.P. Timmer, B. Aten, A. Atkeson, S. Basu, A. Deaton, et al. 2015. “The Next Generation of the Penn World Table.” *American Economic Review* 105 (10): 3150–82. <https://doi.org/10.1257/aer.20130954>.
- Feigenberg, B. 2020. “Fenced Out: The Impact of Border Construction on -US-Mexico Migration.” *American*

- Economic Journal: Applied Economics* 12 (3): 106–39. <https://doi.org/10.1257/app.20170231>.
- Fellini, I., and R. Guetto. 2022. “Legal Status and Immigrants’ Labour Market Outcomes: Comparative Evidence from a Quasi-Experiment in Western and Southern Europe.” *Journal of Ethnic and Migration Studies* 48 (11): 2740–61. <https://doi.org/10.1080/1369183X.2020.1752639>.
- Fernández-Huertas Moraga, J., and H. Rapoport. 2014. “Tradable Immigration Quotas.” *Journal of Public Economics* 115: 94–108. <https://doi.org/10.1016/j.jpubeco.2014.04.002>.
- Ferwerda, J., and J. Gest. 2021. “Pull Factors and Migration Preferences: Evidence from the Middle East and North Africa.” *International Migration Review* 55 (2): 431–59. <https://doi.org/10.1177/0197918320949825>.
- Fiorini, M., G. Giovannetti, M. Lanati, and F. Santi. 2018. “Asymmetric Cultural Proximity and Greenfield FDI.” 434. Development Studies Working Papers. http://dagliano.unimi.it/wp-content/uploads/2018/01/WP2018_434.pdf.
- . 2021. “Asymmetric Cultural Proximity and Greenfield Foreign Direct Investment.” *World Economy* 44 (9): 2572–2603. <https://doi.org/10.1111/twec.13088>.
- Firebaugh, G., and F.D. Beck. 1994. “Does Economic Growth Benefit the Masses? Growth, Dependence, and Welfare in the Third World.” *American Sociological Review* 59 (5): 631–53. <https://www.jstor.org/stable/2096441>.
- Fischer, P.A., R. Martin, and T. Straubhaar. 1997. “Chapters 3-4.” In *International Migration, Immobility and Development*, edited by T. Hammar, G. Brochmann, K. Tomas, and T. Faist, 49–132. Oxford, UK: Berg.
- Fitzgerald, J., D. Leblang, and J.C. Teets. 2014. “Defying the Law of Gravity: The Political Economy of International Migration.” *World Politics* 66 (3): 406–45. <https://doi.org/10.1017/s0043887114000112>.
- FitzGerald, S. 1988. “Immigration, a Commitment to Australia.” Canberra. <https://catalogue.nla.gov.au/Record/1920991>.
- Flamm, K. 1984. “The Volatility of Offshore Investment.” *Journal of Development Economics* 16: 231–48. [https://doi.org/10.1016/0304-3878\(84\)90076-2](https://doi.org/10.1016/0304-3878(84)90076-2).
- Flisi, S., and M. Murat. 2011. “The Hub Continent. Immigrant Networks, Emigrant Diasporas and FDI.” *Journal of Socio-Economics* 40: 796–805. <https://doi.org/10.1016/j.socsec.2011.08.025>.
- FMT reporters. 2020. “Malaysia Should ‘Race to the Top’ in Drawing Foreign Investors, Says Think Tank.” *Free Malaysia Today News*, September 15, 2020. <https://www.freemalaysiatoday.com/category/nation/2020/09/15/malaysia-should-race-to-the-top-in-drawing-foreign-investors-says-think-tank/>.
- Foad, H. 2012. “FDI and Immigration: A Regional Analysis.” *The Annals of Regional Science* 49 (1): 237–59. <https://doi.org/10.1007/s00168-011-0438-4>.
- Foley, C.F., and W.R. Kerr. 2013. “Ethnic Innovation and U.S. Multinational Firm Activity.” *Management Science* 59 (7): 1529–44. <https://doi.org/10.1287/mnsc.1120.1684>.
- Fons-Rosen, C., S. Kalemli-Ozcan, B.E. Sørensen, C. Villegas-Sanchez, and V. Volosovych. 2021. “Quantifying Productivity Gains from Foreign Investment.” *Journal of International Economics* 131: 13. <https://doi.org/10.1016/j.jinteco.2021.103456>.
- Foreign Investment Review Board. 2022. “Australia’s Foreign Investment Policy.” Canberra, Australia: Australian Government. https://www.firb.gov.au/content/_downloads/AFIP_2013.pdf.
- Forsslid, R., and G.I.P. Ottaviano. 2003. “An Analytically Solvable Core-Periphery Model.” *Journal of Economic Geography* 3 (3): 229–40. <https://doi.org/10.1093/jeg/3.3.229>.
- Fraser Institute. 2018. “Economic Freedom of the World: 2018 Annual Report Data by Country.” 2018. <https://www.fraserinstitute.org/resource-file?nid=12378&fid=10643>.
- Frattini, T. 2017. “Integration of Immigrants in Host Countries-What We Know and What Works.” 427. Development Studies Working Papers. http://dagliano.unimi.it/wp-content/uploads/2017/01/WP2017_427.pdf.

content/uploads/2017/03/WP2017_427.pdf.

- Freeman, G.P. 1995. "Modes of Immigration Politics in Liberal Democratic States." *The International Migration Review* 29 (4): 881–902. <https://doi.org/10.1177/019791839502900401>.
- Frenkel, M., and B. Walter. 2019. "Do Bilateral Investment Treaties Attract Foreign Direct Investment ? The Role of International Dispute Settlement Provisions." *The World Economy* 42: 1316–42. <https://doi.org/10.1111/twec.12743>.
- Frydenberg, J. 2020. "Changes to Foreign Investment Framework ." Australian Government . March 29, 2020. <https://ministers.treasury.gov.au/ministers/josh-frydenberg-2018/media-releases/changes-foreign-investment-framework>.
- Fulford, S.L., I. Petkov, and F. Schiantarelli. 2020. "Does It Matter Where You Came from? Ancestry Composition and Economic Performance of US Counties, 1850–2010." *Journal of Economic Growth* 25 (3): 341–80. <https://doi.org/10.1007/s10887-020-09180-9>.
- Fung, K.C., A. Garcia-Herrero, and H. Iizaka. 2005. "Hard or Soft? Institutional Reforms and Infrastructure Spending as Determinants of Foreign Direct Investment in China." *The Japanese Economic Review* 56 (4): 408–16. <https://doi.org/10.1111/j.1468-5876.2005.00342.x>.
- Gamso, J., and F. Yuldashev. 2017. "Targeted Foreign Aid and International Migration: Is Development-Promotion an Effective Immigration Policy?" 37. *AidData Working Paper*. Working Paper. <https://doi.org/10.1093/ISQ/SQY029>.
- Gandolfi, D., T. Halliday, and R. Robertson. 2017. "Trade, FDI, Migration, and the Place Premium: Mexico and the United States." *Review of World Economics* 153 (1): 1–37. <https://doi.org/10.1007/s10290-016-0260-2>.
- Gao, T. 2003. "Ethnic Chinese Networks and International Investment: Evidence from Inward FDI in China." *Journal of Asian Economics* 14: 611–29. [https://doi.org/10.1016/S1049-0078\(03\)00098-8](https://doi.org/10.1016/S1049-0078(03)00098-8).
- Garas, A., A. Lapatinas, and K. Poullos. 2016. "The Relation between Migration and FDI in the OECD from a Complex Network Perspective." *Advances in Complex Systems* 19: 1–27. <https://doi.org/http://dx.doi.org/10.1142/S0219525916500090>.
- Gastanaga, V.M., J.B. Nugent, and B. Pashamova. 1998. "Host Country Reforms and FDI Inflows: How Much Difference Do They Make?" *World Development* 26 (7): 1299–1314. [https://doi.org/10.1016/S0305-750X\(98\)00049-7](https://doi.org/10.1016/S0305-750X(98)00049-7).
- Geiger, M., and A. Pécoud. 2013. "Migration, Development and the 'Migration and Development Nexus.'" *Population, Space and Place* 19 (4): 369–74. <https://doi.org/10.1002/PSP.1778>.
- Gereffi, G., J. Humphrey, R. Kaplinsky, T.J. Sturgeon, and T. Sturgeon. 2001. "Introduction: Globalisation, Value Chains and Development Globalisation, Value Chains and Development." 32.3. *IDS Bulletin*.
- Gheasi, M., and P. Nijkamp. 2017. "A Brief Overview of International Migration Motives and Impacts, with Specific Reference to FDI." *Economies* 5 (3): 1–11. <https://doi.org/10.3390/economies5030031>.
- Gheasi, M., P. Nijkamp, and P. Rietveld. 2013. "Migration and Foreign Direct Investment: Education Matters." *Annals of Regional Science* 51: 73–87. <https://doi.org/10.1007/s00168-012-0533-1>.
- Ghosh, M., P. Syntetos, and W. Wang. 2012. "Impact of FDI Restrictions on Inward FDI in OECD Countries." *Global Economy Journal* 12 (3): 1–27. <https://doi.org/10.1515/1524-5861.1822>.
- Gibson, J., and D. McKenzie. 2011. "Eight Questions about Brain Drain." *Journal of Economic Perspectives* 25 (3): 107–28. <https://doi.org/10.1257/jep.25.3.107>.
- Gibson, J., D. McKenzie, H. Rohorua, and S. Stillman. 2018. "The Long-Term Impacts of International Migration: Evidence from a Lottery." *World Bank Economic Review* 32 (1): 127–47. <https://doi.org/10.1093/wber/lhx003>.
- Giovanni, J. Di, A.A. Levchenko, and F. Ortega. 2014. "A Global View of Cross-Border Migration." 20002. Working Paper. Cambridge, US. <https://doi.org/10.3386/w20002>.
- Gittens, D., and S. Pilgrim. 2013. "Foreign Direct Investment and Human Capital: A Dynamic Paradox for

- Developing Countries.” *Journal of Finance, Accounting and Management* 4 (2): 26–49. <https://www.proquest.com/docview/1506449037>.
- Giuliano, P., and M. Ruiz-Arranz. 2005. “Remittances, Financial Development, and Growth.” 05/234. *IMF Working Papers*. IMF Working Paper Series. Washington, D.C. <https://doi.org/10.1016/j.jdeveco.2008.10.005>.
- Glassman, J. 1999. “State Power beyond the ‘Territorial Trap’: The Internationalization of the State.” *Political Geography* 18: 669–96. [https://doi.org/10.1016/S0962-6298\(99\)00013-X](https://doi.org/10.1016/S0962-6298(99)00013-X).
- Globerman, S., and D. Shapiro. 2002. “Global Foreign Direct Investment Flows: The Role of Governance Infrastructure.” *World Development* 30 (11): 1899–1919. [https://doi.org/10.1016/S0305-750X\(02\)00110-9](https://doi.org/10.1016/S0305-750X(02)00110-9).
- Gomes, C. 2021. “Transience as Method: A Conceptual Lens to Understanding Evolving Trends in Migration, Mobility, and Diversity in the Transnational Space.” *Migration Studies* 9 (3): 649–76. <https://doi.org/10.1093/migration/mnz027>.
- Gomez, E.T., N. Padmanabhan, Thirshalar Kamaruddin, S. Bhalla, and F. Fisal. 2018. *Minister of Finance Incorporated: Ownership and Control of Corporate Malaysia*. Singapore: Palgrave Macmillan. <https://doi.org/10.1007/978-981-10-4897-5>.
- Gómez, L., P. Oinas, and R.S. Wall. 2022. “Undercurrents in the World Economy: Evolving Global Investment Flows in the South.” *The World Economy* 45: 1830–55. <https://doi.org/10.1111/twec.13219>.
- Gong, Y. 2003. “Subsidiary Staffing in Multinational Enterprises: Agency, Resources, and Performance.” *Academy of Management Journal* 46 (6): 728–39. <https://doi.org/10.2307/30040664>.
- Görg, H., and E. Strobl. 2002. “Multinational Companies and Indigenous Development: An Empirical Analysis.” *European Economic Review* 46: 1305–22. [https://doi.org/10.1016/S0014-2921\(01\)00146-5](https://doi.org/10.1016/S0014-2921(01)00146-5).
- Gorton, J.G. 1969. “Overseas Investment in Australia.” Canberra: Australian Government. <https://pmtranscripts.pmc.gov.au/sites/default/files/original/00001917.pdf>.
- Gospodinov, N., A. María Herrera, and E. Pesavento. 2013. “Unit Roots, Cointegration and Pre-Testing in VAR Models.” *Advances in Econometrics* 32: 81–115. [https://doi.org/10.1108/S0731-9053\(2013\)0000031003](https://doi.org/10.1108/S0731-9053(2013)0000031003).
- Goss, J., and B. Lindquist. 1995. “Conceptualizing International Labor Migration: A Structuration Perspective.” *The International Migration Review* 29 (2): 317–51. <https://doi.org/10.1177/019791839502900201>.
- Graff, M., A.G. Kenwood, and A.L. Loughhead. 2014. *Growth of the International Economy, 1820-2015*. Fifth. London: Routledge.
- Grassby (Minister for Immigration), T.H.A.J. 1974. “News Release.” Canberra: Australian Government. https://parlinfo.aph.gov.au/parlInfo/download/media/pressrel/HPR05001554/upload_binary/HPR05001554.pdf;fileType=application%2Fpdf#search=%22easy visa grassby%22.
- Gregori, W.D., and M. Nardo. 2021. “The Effect of Restrictive Measures on Cross-Border Investment in the European Union.” *World Economy* 44 (7): 1914–43. <https://doi.org/10.1111/twec.13104>.
- Gretton, P. 2022. “National and Sectoral Effects of a Decline in the Desirability of Investing in Australia.” *Australian Economic Review* 55 (1): 91–121. <https://doi.org/10.1111/1467-8462.12441>.
- Grogger, J., and G.H. Hanson. 2011. “Income Maximization and the Selection and Sorting of International Migrants.” *Journal of Development Economics* 95: 42–57. <https://doi.org/10.1016/j.jdeveco.2010.06.003>.
- Grossmann, V., and D. Stadelmann. 2012. “Wage Effects of High-Skilled Migration: International Evidence.” *The World Bank Economic Review* 27 (2): 297–319. <https://doi.org/10.1093/wber/lht002>.
- Grubunov-Boskovic, S., S. Kalantaryan, S. Migali, and M. Scipioni. 2021. “The Impact of the Internet on Migration Aspirations and Intentions.” *Migration Studies* 9 (4): 1807–22.

<https://doi.org/10.1093/migration/mnab049>.

- Guerreiro, J., S. Rebelo, and P. Teles. 2019. "What Is the Optimal Immigration Policy? Migration, Jobs and Welfare." 26154. Working Paper. Cambridge, MA.
- Gurak, D., and F. Caces. 1992. "Migration Networks and the Shaping of Migration Systems." In *International Migration Systems: A Global Approach*, edited by M. Kritiz, L. Lim, and H. Zlotnik, 150–76. Oxford: Claredon Press. <https://doi.org/10.1371/journal.pntd.0000508>.
- Gwartney, J., R. Lawson, J. Hall, R. Murphy, N. Berggren, F. McMahon, and T. Nilsson. 2020. "Economic Freedom of the World Annual Report 2020."
- Gygli, S., F. Haelg, N. Potrafke, and J.-E. Sturm. 2019. "The KOF Globalisation Index – Revisited." *The Review of International Organizations* 14: 543–74. <https://doi.org/10.1007/s11558-019-09344-2>.
- Haas, H. de. 2005. "International Migration, Remittances and Development: Myths and Facts." *Third World Quarterly* 26 (8): 1269–84. <https://doi.org/10.1080/01436590500336757>.
- . 2010a. "Migration Transitions: A Theoretical and Empirical Inquiry into the Developmental Drivers of International Migration." 24. Working Papers. Oxford.
- . 2010b. "Migration and Development: A Theoretical Perspective." *International Migration Review* 44 (1): 227–64. <https://doi.org/10.1111/j.1747-7379.2009.00804.x>.
- . 2012. "The Migration and Development Pendulum: A Critical View on Research and Policy." *International Migration* 50 (3): 8–25. <https://doi.org/10.1111/j.1468-2435.2012.00755.x>.
- . 2021. "A Theory of Migration: The Aspirations-Capabilities Framework." *Comparative Migration Studies* 9 (8): 1–35. <https://doi.org/10.1186/S40878-020-00210-4/TABLES/2>.
- Haas, H. de, M. Czaika, M.-L. Flahaux, E. Mahendra, K. Natter, S. Vezzoli, and M. Villares-varela. 2018. "International Migration: Trends, Determinants and Policy Effects." 142. Working Paper.
- Haas, H. de, M. Czaika, M.-L. Flahaux, E. Mahendra, K. Natter, S. Vezzoli, and M. Villares-Varela. 2018. "International Migration. Trends, Determinants and Policy." *IMI Working Paper Series*, no. 142: 1–59.
- Haas, H. de, K. Natter, and S. Vezzoli. 2016. "Conceptualizing and Measuring Migration Policy Change." *Comparative Migration Studies* 3 (1): 21. <https://doi.org/10.1186/s40878-015-0016-5>.
- Haberler, G. 1976. "Survey of Circumstances Affecting the Location of Production and International Trade as Analysed in the Theoretical Literature." In *The International Allocation of Economic Activity*, edited by B. Ohlin, P.-O. Hesselborn, and P.M. Wijkman, 1–24. Bath, UK: Macmillan Press Ltd.
- Hackl, A. 2018. "Mobility Equity in a Globalized World: Reducing Inequalities in the Sustainable Development Agenda." *World Development* 112: 150–62. <https://doi.org/10.1016/j.worlddev.2018.08.005>.
- Haelg, F. 2022. "Drivers of Financial Globalisation: The Role of Informational Frictions." *World Economy* 45 (3): 608–36. <https://doi.org/10.1111/twec.13181>.
- Hagen, M. 2022. "Tradable Immigration Quotas Revisited." *Journal of Public Economics* 208: 23. <https://doi.org/10.1016/j.jpubeco.2022.104619>.
- Hainmueller, J., D. Hangartner, and G. Pietrantuono. 2017. "Catalyst or Crown: Does Naturalization Promote the Long-Term Social Integration of Immigrants?" *American Political Science Review* 111 (2): 256–76. <https://doi.org/10.1017/S0003055416000745>.
- Hale, G., and M. Xu. 2016. "FDI Effects on the Labor Market of Host Countries." 2016–25. Working Paper. <http://www.frbsf.org/economic-research/publications/working-papers/wp2016-25.pdf>.
- Han, X., H. Khan, and J. Zhuang. 2014. "Do Governance Indicators Explain Development Performance? A Cross-Country Analysis." 417. Economics Working Paper.
- Hanushek, E.A., G. Schwerdt, S. Wiederhold, and L. Woessmann. 2015. "Returns to Skills around the World: Evidence from PIAAC." *European Economic Review* 73: 103–30. <https://doi.org/10.1016/j.euroecorev.2014.10.006>.

- Hanushek, E.A., and L. Woessmann. 2015. *The Knowledge Capital of Nations: Education and the Economics of Growth*. Cambridge, MA: MIT Press.
- Harding, T., and B.S. Javorcik. 2012. "Foreign Direct Investment and Export Upgrading." *The Review Of Economics and Statistics* 94 (4): 964–80. https://doi.org/10.1162/REST_a_00226.
- Harrap, B., L. Hawthorne, M. Holland, J.T. McDonald, and A. Scott. 2022. "Australia's Superior Skilled Migration Outcomes Compared with Canada's." *International Migration* 60 (5): 91–107. <https://doi.org/10.1111/IMIG.12940>.
- Harrison, A., and A. Rodríguez-Clare. 2010. "Trade, Foreign Investment, and Industrial Policy for Developing Countries." In *Handbook of Development Economics*, edited by D. Rodrik and M.R. Rosenzweig, 1st ed., 5:4039–4214. Elsevier BV. <https://doi.org/10.1016/B978-0-444-52944-2.00001-X>.
- Haskel, J.E., S.C. Pereira, and M.J. Slaughter. 2007. "Does Inward Foreign Direct Investment Boost the Productivity of Domestic Firms?" *Review of Economics and Statistics* 89 (3): 482–96. <https://doi.org/10.1162/rest.89.3.482>.
- Hassam, A. 2007. "The 'Bring out a Briton' Campaign of 1957 and British Migration to Australia in the 1950s." *History Compass* 5 (3): 818–44. <https://doi.org/10.1111/j.1478-0542.2007.00428.x>.
- Hatton, T.J. 2020. "Asylum Migration to the Developed World: Persecution, Incentives, and Policy." *The Journal of Economic Perspectives* 34 (1): 75–93. <https://doi.org/10.1155/2010/706872>.
- . 2021. "Emigration from the United Kingdom to the United States, Canada and Australia/New Zealand, 1870–1913: Quantity and Quality." *Australian Economic History Review* 61 (2): 136–58. <https://doi.org/10.1111/aehr.12218>.
- Hatton, T.J., and J. Williamson. 2002. "What Fundamentals Drive World Migration?" 458. Discussion Paper. <https://openresearch-repository.anu.edu.au/bitstream/1885/40569/3/DP458.pdf>.
- Hatton, T.J., and J.G. Williamson. 1994. "What Drove the Mass Migrations from Europe in the Late Nineteenth Century?" *Population and Development Review* 20 (3): 533–59. <https://www.jstor.org/stable/2137600>.
- Hatzigeorgiou, A., P. Karpaty, R. Kneller, and M. Lodefalk. 2016. "Do Immigrants Spur Offshoring? Firm-Level Evidence." 7/2016. Working Paper. <http://www.oru.se/Institutioner/Handelshogskolan-vid-Orebro-universitet/Forskning/Publikationer/Working-papers/>.
- Hawkins, F. 1991. *Critical Years in Immigration: Canada and Australia Compared*. Montreal: McGill-Queen's University Press.
- Hawthorne, L. 2005. "'Picking Winners': The Recent Transformation of Australia's Skilled Migration Policy." *International Migration Review* 39 (3): 663–96. <https://doi.org/10.1111/j.1747-7379.2005.tb00284.x>.
- . 2014. "A Comparison of Skilled Migration Policy: Australia, Canada and New Zealand." Melbourne.
- Hayakawa, T. 2020. "Skill Levels and Inequality in Migration: A Case Study of Filipino Migrants in the UK." *Asian and Pacific Migration Journal* 29 (3): 333–57. <https://doi.org/10.1177/0117196820964885>.
- Hear, N. Van, O. Bakewell, and K. Long. 2018. "Push-Pull plus: Reconsidering the Drivers of Migration." *Journal of Ethnic and Migration Studies* 44 (6): 927–44. <https://doi.org/10.1080/1369183X.2017.1384135>.
- Heckscher, E. 1919. "The Effect of Foreign Trade on the Distribution of Income." In *Translated in Readings in the Theory of International Trade (1949)*, edited by A.E. Association, 497–512. Philadelphia: Blackiston.
- Helbling, M., and D. Leblang. 2019. "Controlling Immigration? How Regulations Affect Migration Flows." *European Journal of Political Research* 58 (1): 248–269. <https://doi.org/10.1111/1475-6765.12279>.
- Helliwell, J.F., S. Wang, and J. Xu. 2016. "How Durable Are Social Norms? Immigrant Trust and Generosity in 132 Countries." *Social Indicators Research* 128: 201–19. <https://doi.org/10.1007/s11205-015-1026-2>.

- Helpman, E., M.J. Melitz, and S.R. Yeaple. 2004. "Export Versus FDI with Heterogeneous Firms." *American Economic Review* 94 (1): 300–316. <https://doi.org/10.1257/000282804322970814>.
- Henderson, J., and R. Phillips. 2007. "Economy and Society Unintended Consequences: Social Policy, State Institutions and the 'stalling' of the Malaysian Industrialization Project." *Economy and Society* 36 (1): 78–102. <https://doi.org/10.1080/03085140601089853>.
- Hernandez, E. 2014. "Finding a Home Away from Home: Effects of Immigrants on Firms' Foreign Location Choice and Performance." *Administrative Science Quarterly* 59 (1): 73–108. <https://doi.org/10.1177/0001839214523428>.
- Hickey, M. 2016. "Mobilisation : Relinking Internal and Development Nexus'." *Population, Space and Place* 22: 681–92. <https://doi.org/10.1002/psp.1952>.
- Hidalgo, C.A., B. Klinger, A.-L. Barabási, and R. Hausmann. 2007. "The Product Space Conditions the Development of Nations." *Science* 317: 482–87. <https://doi.org/10.1126/science.1144581>.
- Hoang, K. 2016. "Explainer: What Is Australia's 'points System' for Immigration?" *The Conversation*, June 22, 2016. <https://theconversation.com/explainer-what-is-australias-points-system-for-immigration-26065>.
- Hollifield, J.F. 2004. "The Emerging Migration State." *The International Migration Review* 38 (3): 885–912. <https://doi.org/10.1111/j.1747-7379.2004.tb00223.x>.
- Hollifield, J.F., and M.O. Sharpe. 2017. "Japan as an 'Emerging Migration State.'" *International Relations of the Asia-Pacific* 17 (3): 371–400. <https://doi.org/10.1093/irap/lcx013>.
- Hombrados, J.G., R. Ciacci, and A. Zainudeen. 2022. "Mobile Phone Network and Migration: Evidence From Myanmar." *International Migration Review* 56 (2): 594–614. <https://doi.org/10.1177/01979183211041030>.
- Hossain, M.S., and A. Sunmoni. 2022. "Remittances and Household Investment Decisions: Evidence from Sub-Saharan Africa." *IZA Journal of Development and Migration* 13 (1): 1–50. <https://doi.org/10.2478/izajodm-2022-0004>.
- Hou, F., and G. Picot. 2021. "The Decline in the Naturalization Rate among Recent Immigrants in Canada: Policy Changes and Other Possible Explanations." *Migration Studies* 9 (3): 1030–53. <https://doi.org/10.1093/migration/mnaa010>.
- Hoxhaj, R., L. Marchal, and A. Seric. 2016. "FDI and Migration of Skilled Workers Towards Developing Countries: Firm-Level Evidence from Sub-Saharan Africa." *Journal of African Economies* 25 (2): 201–32. <https://doi.org/10.1093/jae/ejv022>.
- Hugo, G. 1986. "The Australian Immigration Points System, Report for the Migration Committee of the National Population Council." Canberra.
- . 2014a. "Change and Continuity in Australian International Migration Policy." *International Migration Review* 48 (3): 868–90. <https://doi.org/10.1111/imre.12120>.
- . 2014b. "Skilled Migration in Australia: Policy and Practice." *Asian and Pacific Migration Journal* 23 (4): 375–96. <https://doi.org/10.1177/011719681402300404>.
- Human Rights Watch. 2002. "'By Invitation Only:' Australian Asylum Policy." Vol. 14. New York. <http://www.hrw.org/reports/2002/australia/australia1202.pdf>.
- Humphrey, M. 2013. "Securitization of Migration: An Australian Case Study of Global Trends." *Journal of Intercultural Studies* 34 (2): 178–95. <https://www.redalyc.org/articulo.oa?id=273231878007>.
- Hunt, J., and M. Gauthier-Loiselle. 2010. "How Much Does Immigration Boost Innovation?" *American Economic Journal Macroecono*: 31–56. <https://doi.org/10.1257/mac.2.2.31>.
- Hymer, S.H. 1960. "The International Operations of National Firms: A Study of Direct Foreign Investment." Massachusetts Institute of Technology. <https://doi.org/10.1057/jibs.1978.33>.
- Iamsiraroj, S., and M.A. Ulubaşoğlu. 2015. "Foreign Direct Investment and Economic Growth: A Real Relationship or Wishful Thinking?" *Economic Modelling* 51 (December): 200–213.

- <https://doi.org/10.1016/j.econmod.2015.08.009>.
- IEA. 2019. "Data - Trends in International Mathematics and Science Study." IEA TIMSS. 2019. <https://www.iea.nl/studies/iea/timss>.
- IMF. 2017. "Investment and Capital Stock Dataset." International Monetary Fund. 2017. <https://doi.org/10.1596/978-1-4648-0316-1>.
- . 2023. "Coordinated Direct Investment Survey." <https://data.imf.org/regular.aspx?key=61227426>.
- iMoney. 2019. "Here's How M'sia Compares To Other Countries On Foreign Property Ownership." iMoney. 2019. <https://www.imoney.my/articles/foreign-property-ownership-threshold>.
- Inglis, C. 2004. "Australia's Continuing Transformation." Migration Information Service. August 1, 2004. <https://www.migrationpolicy.org/article/australias-continuing-transformation>.
- International Labour Organization. 2016. *Review of Labour Migration Policy in Malaysia ILO Regional Office for Asia and the Pacific*.
- International Monetary Fund. 2022. "Global Trade and Value Chains during the Pandemic." In *World Economic Outlook*, 87–107. Washington, D.C.: IMF.
- IOM. 2021. "Migration Governance Profiles." Migration Data Portal. 2021. <https://migrationdataportal.org/overviews/mgi#0>.
- Iredale, R.R. 1997. *Skills Transfer : International Migration and Accreditation Issues : A Comparative Study of Australia, Britain, Canada, New Zealand and the United States*. Wollongong: University of Wollongong Press.
- Ivlevs, A. 2006. "Migration and Foreign Direct Investment in the Globalization Context: The Case of a Small Open Economy." 209. *Development Studies Working Papers*. http://www.dagliano.unimi.it/media/WP2006_209.pdf.
- Jackman, R.W. 1982. "Dependence on Foreign Investment and Economic Growth in the Third World." *World Politics* 34 (2): 175–96. <https://doi.org/10.2307/2010262>.
- Jacobs, E. 2022. "Work Visas and Return Migration: How Migration Policy Shapes Global Talent." *Journal of Ethnic and Migration Studies* 48 (7): 1647–68. <https://doi.org/10.1080/1369183X.2020.1857232>.
- Jaumotte, F., S. Lall, and C. Papageorgiou. 2013. "Rising Income Inequality: Technology, or Trade and Financial Globalization?" *IMF Economic Review* 61 (2): 271–309. <https://doi.org/10.1057/imfer.2013.7>.
- Javorcik, B.S., Ç. Özden, M. Spatareanu, and C. Neagu. 2011. "Migrant Networks and Foreign Direct Investment." *Journal of Development Economics* 94 (2): 231–41. <https://doi.org/10.1016/j.jdeveco.2010.01.012>.
- Javorcik, B.S., and M. Spatareanu. 2005. "Do Foreign Investors Care about Labor Market Regulations?" *Review of World Economics* 141 (3): 375–403. <https://doi.org/10.1007/S10290-005-0035-7>.
- Jayet, H., and L. Marchal. 2016. "Migration and FDI: Reconciling the Standard Trade Theory with Empirical Evidence." *Economic Modelling* 59: 46–66. <https://doi.org/10.1016/j.econmod.2016.06.019>.
- Jean, R.-J.B., D. Tan, and R.R. Sinkovics. 2011. "Ethnic Ties, Location Choice, and Firm Performance in Foreign Direct Investment: A Study of Taiwanese Business Groups FDI in China." *International Business Review* 20: 627–35. <https://doi.org/10.1016/j.ibusrev.2011.02.012>.
- Jensen, P.H. 2014. "Understanding the Impact of Migration on Innovation." *The Australian Economic Review* 47 (2): 240–50. <https://doi.org/10.1111/1467-8462.12067>.
- Jiang, H., Y. Liang, and S. Pan. 2022. "Foreign Direct Investment and Regional Innovation: Evidence from China." *World Economy* 45 (6): 1876–1909. <https://doi.org/10.1111/twec.13205>.
- Johannan, B. 2020. "An Inevitable Reform, a Long Awaited Solution: The Establishment of the Australian Foreign Investment Regulatory Authority (AFIRA)." *ILA Reporter*. 2020. <https://ilareporter.org.au/2020/11/an-inevitable-reform-a-long-awaited-solution-the-establishment-of-the-australian-foreign-investment-regulatory-authority-afira-bovas-johannan/>.

- Jones, R.W., I. Coelho, and S.T. Easton. 1985. "The Theory of International Factor Flows: The Basic Model." 4. New York. http://rcer.econ.rochester.edu/RCERPAPERS/rcer_4.pdf.
- Joona, P.A., and L. Nekby. 2012. "Intensive Coaching of New Immigrants: An Evaluation Based on Random Program Assignment*." *The Scandinavian Journal of Economics* 114 (2): 575–600. <https://doi.org/10.1111/j.1467-9442.2011.01692.x>.
- Joppke, C. 2017. "Civic Integration in Western Europe: Three Debates." *West European Politics* 40 (6): 1153–76. <https://doi.org/10.1080/01402382.2017.1303252>.
- Jordaan, J.A. 2018. "Foreign Workers and Productivity in an Emerging Economy: The Case of Malaysia." *Review of Development Economics* 22 (1): 148–73. <https://doi.org/10.1111/rode.12334>.
- Juhász, R., N. Lane, and D. Rodrik. 2023. "The New Economics of Industrial Policy." <https://tinyurl.com/2ckdgn4z>.
- Junankar, P.N. (Raja). 2016. *Economics of Immigration: Immigration and the Australian Economy*. Palgrave Macmillan. <https://doi.org/10.1057/9781137555250>.
- Jupp, J. 2002. *From White Australia to Woomera: The Story of Australian Immigration*. Cambridge University Press.
- Kainz, L., and A. Betts. 2021. "Power and Proliferation: Explaining the Fragmentation of Global Migration Governance." *Migration Studies* 9 (1): 65–89. <https://doi.org/10.1093/migration/mnaa015>.
- Kanapathy, V. 2004. "International Migration and Labour Market Developments in Asia: Economic Recovery, the Labour Market and Migrant Workers in Malaysia." In *Workshop on International Migration and Labour Markets in Asia*, 38. Japan Institute for Labour Policy and Training.
- Kanbur, R., P. Kumar Rajaram, and A. Varshney. 2011. "Ethnic Diversity and Ethnic Strife. An Interdisciplinary Perspective." *World Development* 39 (2): 147–58. <https://doi.org/10.1016/j.worlddev.2009.11.034>.
- Kaplan, M. 1974. "The Power Structure in International Relations." *International Social Science Journal* XXVI (1): 95–108. <https://unesdoc.unesco.org/ark:/48223/pf0000009362>.
- Karemera, D., V.I. Oguledo, and B. Davis. 2000. "A Gravity Model Analysis of International Migration to North America." *Applied Economics* 32 (13): 1745–55. <https://doi.org/10.1080/000368400421093>.
- Kassim, A. 1987. "The Unwelcome Guests: Indonesian Immigrants and Malaysian Public Responses." *Southeast Asian Studies* 25 (2): 265–78. https://doi.org/10.20495/tak.25.2_265.
- . 2014. "Foreign Workers in Malaysia in the Post-Independence Era Race Paradigm in State Policy, Academic Writings and Public Discourse." In *Transforming Malaysia: Dominant and Competing Paradigms*, edited by A. Milner, 143–77. Singapore: ISEAS Publishing.
- . 2017. "Recent Trends in Transnational Population Inflows into Malaysia: Policy, Issues and Challenges." In *Foreign Labour in Malaysia: Selected Works*, edited by A.S. Mazlan, Z.A. Manaf, R.A. Rahman, and S. Saad, 19–46. Bandar Baru Bangi: Malaysian Ministry of Higher Education.
- Kassim, A., and R.H.J. Mat Zin. 2011. "Irregular Migrants and the Law." *Philippine Journal of Development* 38 (2): 85–104. https://econpapers.repec.org/paper/phdpjdevt/pjd_5f2011_5fvol_5f_5f38_5fnos_5f_5f1-2d.htm.
- Kassim, A., T. Too, S.C.M. Wong, and M.Z. Abidin. 2014. "The Management of Foreign Workers in Malaysia: Institutions and Governance Regime." In *Managing International Migration for Development in East Asia*, edited by R.H. Adams and A. Ahsan, 241–62. Washington: World Bank. <https://openknowledge.worldbank.org/bitstream/handle/10986/21071/932550WP0P11600ia000Research0Papers.pdf?sequence=1#page=241>.
- Kaufmann, D., and A. Kraay. 2019. "Worldwide Governance Indicators." Worldwide Governance Indicators. 2019. <https://www.worldbank.org/en/publication/worldwide-governance-indicators>.
- Kaur, A. 2004. "Mobility, Labor Migration and Border Controls: Indonesian Labor Migration to Malaysia since 1900." In *15th Biennial Conference of the Asian Studies Association of Australia*, 23. Canberra. <https://www.researchgate.net/publication/242440457>.

- . 2008. "International Migration and Governance in Malaysia : Policy and Performance." *UNEAC Asia Papers*, no. 22: 4–18.
- . 2014. "Managing Labour Migration in Malaysia: Guest Worker Programs and the Regularisation of Irregular Labour Migrants as a Policy Instrument." *Asian Studies Review* 38 (3): 345–66. <https://doi.org/10.1080/10357823.2014.934659>.
- . 2015. "Malaysia Labour Migration, Irregular Movements and Regional Policies." In *Migration and Integration in Europe, Southeast Asia, and Australia*, edited by J. Pietsch and M. Clark, 75–98. Amsterdam: Amsterdam University Press. <https://www.jstor.org/stable/j.ctt16f986x.9>.
- Kennan, J. 2013. "Open Borders." *Review of Economic Dynamics* 16: L1–13. <https://doi.org/10.1016/j.red.2012.08.003>.
- Kennedy, A. 2019. "The Politics of Skilled Immigration: Explaining the Ups and Downs of the US H-1B Visa Program." *International Migration Review* 53 (2): 346–70. <https://doi.org/10.1177/0197918318769312>.
- Kentor, J. 1998. "The Long-Term Effects of Foreign Investment Dependence on Economic Growth, 1940–1990." *American Journal of Sociology* 103 (4): 1024–70. <https://doi.org/10.1086/231295>.
- Kerr, S.P., W.R. Kerr, and W.F. Lincoln. 2015. "Skilled Immigration and the Employment Structures of US Firms." *Journal of Labor Economics* 33 (S1): S147–86. <https://doi.org/10.1086/678986>.
- Kets, W., and A. Sandroni. 2021. "A Theory of Strategic Uncertainty and Cultural Diversity." *The Review of Economic Studies* 88 (1): 287–333. <https://doi.org/10.1093/restud/rdaa037>.
- Khazanah Research Institute. 2018. "The School-To-Work Transition Of Young Malaysians." *Khazanah Research Institute*. Kuala Lumpur. [http://www.krinstitute.org/assets/contentMS/img/template/editor/20181212_SWTS_Presentation DR LIM .pdf](http://www.krinstitute.org/assets/contentMS/img/template/editor/20181212_SWTS_Presentation_DR_LIM.pdf).
- Khoo, S.E., G. Hugo, and P. McDonald. 2011. "Skilled Migration from Europe to Australia." *Population, Space and Place* 17 (5): 550–66. <https://doi.org/10.1002/psp>.
- Kim, C.-U. 2006. "Immigration, FDI and International Trade." Working Paper. <http://hdl.handle.net/1794/2660>.
- Kim, D.J. 2019. "Economic Deterrence Through Economic Engagement." *Foreign Policy Analysis* 15 (2): 176–86. <https://doi.org/10.1093/fpa/ory001>.
- Kim, J.U., and R. V Aguilera. 2016. "Foreign Location Choice: Review and Extensions." *International Journal of Management Reviews* 18: 133–59. <https://doi.org/10.1111/ijmr.12064>.
- Kinoshita, Y., and A. Mody. 2001. "Private Information for Foreign Investment in Emerging Economies." *Canadian Journal of Economics/Revue Canadienne D'Economique* 34 (2): 448–64. <https://doi.org/10.1111/0008-4085.00083>.
- Klabunde, A. 2013. "Computational Economic Modeling of Migration." 471. Economic Papers. Bochum. <https://doi.org/10.4419/86788531>.
- Klapdor, M., M. Coombs, and C. Bohm. 2009. *Australian Citizenship: A Chronology of Major Developments in Policy and Law*. Canberra: Australian Government.
- Klarenbeek, L.M. 2021. "Reconceptualising 'Integration as a Two-Way Process.'" *Migration Studies* 9 (3): 902–21. <https://doi.org/10.1093/migration/mnz033>.
- Klein, P., and G. Ventura. 2009. "Productivity Differences and the Dynamic Effects of Labor Movements." *Journal of Monetary Economics* 56: 1059–73. <https://doi.org/10.1016/j.jmoneco.2009.10.011>.
- Klenow, P.J., and A. Rodríguez-Clare. 2005. "Externalities and Growth." In *Handbook of Economic Growth*, edited by Phillippe Aghion and Steven N. Durlauf, 818–61. Elsevier. [https://doi.org/10.1016/S1574-0684\(05\)01011-7](https://doi.org/10.1016/S1574-0684(05)01011-7).
- Koczan, Z., G. Peri, M. Pinat, and D. Rozhkov. 2021. "The Impact of International Migration on Inclusive Growth: A Review." 88. *IMF Working Papers*. IMF Working Paper.

<https://doi.org/10.5089/9781513571966.001>.

- Kogan, I. 2004. "Last Hired, First Fired? The Unemployment Dynamics of Male Immigrants in Germany." *European Sociological Review* 20 (5): 445–61. <https://doi.org/10.1093/esr/jch037>.
- Kok, L. 2009. "MM2H Requirements." 2009. https://www.academia.edu/32059887/MM2H_Requirements.
- Kokko, A. 2003. "Globalization and FDI Policies." In *The Development Dimension of FDI: Policy and Rule-Making Perspectives; Proceedings of the Expert Meeting Held in Geneva from 6 to 8 November 2002*, edited by UNCTAD, 29–40. New York and Geneva: UNCTAD. <https://www.researchgate.net/publication/220019922>.
- Kolbe, M. 2021. "When Politics Trumps Economics: Contrasting High-Skilled Immigration Policymaking in Germany and Austria." *International Migration Review* 55 (1): 31–57. <https://doi.org/10.1177/0197918320914867>.
- Koopmans, R. 2013. "Multiculturalism and Immigration: A Contested Field in Cross-National Comparison." *Annual Review of Sociology* 39: 147–69. <https://doi.org/10.1177/0197918320914867>.
- Koopmans, R., and M. Schaeffer. 2013. "De-Composing Diversity: In-Group Size and Out-Group Entropy and Their Relationship to Neighbourhood Cohesion." SP VI 2013-104. Discussion Paper. Berlin. <https://www.econstor.eu/handle/10419/90164>.
- Korinek, A., P. Loungani, and J.D. Ostry. 2022. "The IMF's Updated View on Capital Controls: Welcome Fixes but Major Rethinking Is Still Needed." Brookings. 2022. <https://www.brookings.edu/blog/up-front/2022/04/18/the-imfs-updated-view-on-capital-controls-welcome-fixes-but-major-rethinking-is-still-needed/#:~:text=on external funding.,The IMF places too many restrictions on the use of,> labeled as being in violation.
- Kosack, E. 2021. "Guest Worker Programs and Human Capital Investment: The Bracero Program in Mexico, 1942-1964." *Journal of Human Resources* 56 (2): 570–99. <https://doi.org/10.3368/jhr.56.2.0616-8015R2>.
- Koslowski, R. 2014. "Selective Migration Policy Models and Changing Realities of Implementation." *International Migration* 52 (3): 26–39. <https://doi.org/10.1111/imig.12136>.
- Kostenko, W., M. Harris, and X. Zhao. 2012. "Occupational Transition and Country-of-Origin Effects in the Early Stage Occupational Assimilation of Immigrants: Some Evidence from Australia." *Applied Economics* 44 (31): 4019–35. <https://doi.org/10.1080/00036846.2011.587774>.
- Kosyakova, Y., and H. Brücker. 2021. "Does Free Movement of Workers Boost Immigrant Employment? New Evidence from Germany." *Migration Studies* 9 (4): 1734–62. <https://doi.org/10.1093/migration/mnab047>.
- Kox, H.L.M., and H. Rojas-Romagosa. 2020. "How Trade and Investment Agreements Affect Bilateral Foreign Direct Investment: Results from a Structural Gravity Model." *World Economy* 43 (12): 3203–42. <https://doi.org/10.1111/twec.13002>.
- Krifors, K. 2021. "Logistics of Migrant Labour: Rethinking How Workers 'Fit' Transnational Economies." *Journal of Ethnic and Migration Studies* 47 (1): 148–65. <https://doi.org/10.1080/1369183X.2020.1754179>.
- Krugman, P. 1991. "Increasing Returns and Economic Geography." *Journal of Political Economy* 99 (3): 483–99. <https://doi.org/10.1086/261763>.
- Kugiel, P., H.U. Erstad, M. Bøås, and J. Szymańska. 2020. "Can Aid Solve the Root Causes of Migration? A Framework for Future Research on the Development-Migration Nexus." 1. PISM Policy Paper. Warsaw. https://pism.pl/publications/Can_Aid_Solve_the_Root_Causes_of_Migration_A_Framework_for_Future_Research_on_the_DevelopmentMigration_Nexus.
- Kugler, M., O. Levintal, and H. Rapoport. 2018. "Migration and Cross-Border Financial Flows." *World Bank Economic Review* 32 (1): 148–62. <https://doi.org/10.1093/wber/lhx007>.
- Kugler, M., and H. Rapoport. 2005. "Skilled Emigration, Business Networks and Foreign Direct

- Investment.” *SSRN Electronic Journal*, Working Paper, . <https://doi.org/10.2139/ssrn.710923>.
- . 2007. “International Labor and Capital Flows: Complements or Substitutes?” *Economics Letters* 94 (2): 155–62. <https://doi.org/10.1016/j.econlet.2006.06.023>.
- . 2011. “Migration, FDI, and the Margins of Trade.” 222. Working Paper. <https://www.hks.harvard.edu/sites/default/files/centers/cid/files/publications/faculty-working-papers/222.pdf>.
- Kureková, L. 2013. “Welfare Systems as Emigration Factor: Evidence from the New Accession States.” *Journal of Common Market Studies* 51 (4): 721–39. <https://doi.org/10.1111/jcms.12020>.
- Kuschminder, K., and K. Koser. 2017. “The Role of Migration-Specific and Migration-Relevant Policies in Migrant Decision-Making in Transit.” 22. Working Paper. <http://www.maastrichtuniversity.nl/governance>.
- Kusek, P., and A. Silva. 2018. “What Matters to Investors in Developing Countries: Findings from the Global Investment Competitiveness Survey.” In *Global Investment Competitiveness Report 2017/2018: Foreign Investor Perspectives and Policy Implications*, 19–50. Washington: World Bank. <https://doi.org/10.1596/978-1-4648-1175-3>.
- Kustov, A. 2022. “‘Bloom Where You’re Planted’: Explaining Public Opposition to (e)Migration.” *Journal of Ethnic and Migration Studies* 48 (5): 1113–32. <https://doi.org/10.1080/1369183X.2020.1754770>.
- la Escosura, L.P. de. 2019. “Historical Index of Human Development Tables Download.” HIHD. 2019. <https://espacioinvestiga.org/home-hihd/hihd-downloads/?lang=en>.
- Lafortune, J., E. Lewis, and J. Tessada. 2019. “People and Machines: A Look at the Evolving Relationship between Capital and Skill in Manufacturing, 1860-1930, Using Immigration Shocks.” *Review of Economics and Statistics* 101 (1): 30–43. https://doi.org/10.1162/rest_a_00775.
- Lagos, K., and Y. Wang. 2022. “The Threshold Effects of Global Economic Uncertainty on Foreign Direct Investment.” *Transnational Corporations* 29 (1): 75–105. <https://shop.un.org>.
- Lai, K. 2021. “National Security and FDI Policy Ambiguity.” *Journal of International Business Policy* 4 (4): 496–505. <https://doi.org/10.1057/s42214-020-00087-1>.
- Laurentsyeveva, N., and A. Venturini. 2017. “The Social Integration of Immigrants and the Role of Policy — A Literature Review.” *Intereconomics* 52 (5): 285–92. <https://doi.org/10.1007/s10272-017-0691-6>.
- Lavenex, S., and N. Piper. 2022. “Regions and Global Migration Governance: Perspectives ‘from above’, ‘from below’ and ‘from Beyond.’” *Journal of Ethnic and Migration Studies* 48 (12): 2837–54. <https://doi.org/10.1080/1369183X.2021.1972564>.
- Leach, M., H. Macgregor, I. Scoones, and A. Wilkinson. 2021. “Post-Pandemic Transformations: How and Why COVID-19 Requires Us to Rethink Development.” *World Development* 138: 1–11. <https://doi.org/10.1016/j.worlddev.2020.105233>.
- Leblang, D. 2010. “Familiarity Breeds Investment: Diaspora Networks and International Investment.” *The American Political Science Review* 104 (3): 584–600. <https://doi.org/10.1017/S0003055410000201>.
- Lebon-McGregor, E. 2020. “A History of Global Migration Governance: Challenging Linearity.” 167. IMI Working Paper.
- Lee, E. 2020. “The State of the Nation: Foreign Labour Freeze a Blow for Dependent Industries.” *The Edge*, August 3, 2020. <https://www.theedgemarkets.com/article/state-nation-foreign-labour-freeze-blow-dependent-industries>.
- Lee, E.S. 1966. “A Theory of Migration.” *Demography* 3 (1): 47–57. <https://www.jstor.org/stable/2060063>.
- Lee, H.-A. 2021. “Malaysia’s Bumiputera Empowerment Regime: Systemic Foundations, Recent Developments and Comparisons with BEE.” SCIS Working Paper. Johannesburg. [https://www.wits.ac.za/media/wits-university/faculties-and-schools/commerce-law-and-management/research-entities/scis/documents/Malaysia Bumiputera Policies.pdf](https://www.wits.ac.za/media/wits-university/faculties-and-schools/commerce-law-and-management/research-entities/scis/documents/Malaysia%20Bumiputera%20Policies.pdf).
- Lee, H.-A., and K.Y. Leng. 2018. “Counting Migrant Workers in Malaysia: A Needlessly Persisting

- Conundrum." *ISEAS Perspective*, 2018.
- Lee, H.A. 2017. *Malaysia's Bumiputera Preferential Regime and Transformation Agenda*. Edited by T.C. Tiong, O.K. Beng, S.-A. Oh, D. Singh, F.E. Hutchinson, and B. Loh. *Trends in Southeast Asia*. Singapore: ISEAS Publishing. <https://doi.org/10.1355/9789814818056>.
- Lee, H.G. 2020. "Rebooting Malaysia." *Bernama*, July 3, 2020. <https://www.bernama.com/en/thoughts/news.php?id=1856733>.
- Lee, S. 2021. "Migrating beyond Networks: The Mechanisms of Sending State Intervention." *Migration and Development* 10 (3): 342–58. <https://doi.org/10.1080/21632324.2019.1637616>.
- Lemi, A., L. Liu, and I.A. Wright. 2021. "Location Choice Determinants of Chinese and US Firms in Africa: Does Spatial Interdependence Play a Role?" *World Economy* 44 (10): 2965–96. <https://doi.org/10.1111/twec.13124>.
- Léonard, S., and C. Kaunert. 2022. "The Securitisation of Migration in the European Union: Frontex and Its Evolving Security Practices." *Journal of Ethnic and Migration Studies* 48 (6): 1417–29. <https://doi.org/10.1080/1369183X.2020.1851469>.
- Leong, C.E. 2012. "Sabah's Lingering Misery over 'Project IC.'" *Malaysiakini*, August 13, 2012. <https://www.malaysiakini.com/news/206165>.
- Leong, G. 1990. "New Initiatives towards Achieving an Industrialized Economy." Vol. 21.
- Lessem, R. 2018. "Mexico-U.S. Immigration: Effects of Wages and Border Enforcement." *The Review of Economic Studies* 85 (4): 2353–88. <https://doi.org/10.1093/restud/rdx078>.
- Lessem, R., and C. Sanders. 2020. "Immigrant Wage Growth in the United States: The Role of Occupational Upgrading." *International Economic Review* 61 (2): 941–72. <https://doi.org/10.1111/iere.12445>.
- Lewis, E. 2011. "Immigration, Skillmix, and Capital Skill Complementarity." *Quarterly Journal of Economics* 126 (2): 1029–69. <https://doi.org/10.1093/qje/qjr011>.
- Lewis, W.A. 1954. "Economic Development with Unlimited Supplies of Labour." *The Manchester School* 22 (2): 139–91. <https://doi.org/10.1111/j.1467-9957.1954.tb00021.x>.
- Li, H. 2021. "The Time-Varying and Volatile Macroeconomic Effects of Immigration." *Macroeconomic Dynamics*, 1–21. <https://doi.org/10.1017/S1365100521000298>.
- Li, W., L. Lo, Y. Lu, Y. Tan, and Z. Lu. 2021. "Intellectual Migration: Considering China." *Journal of Ethnic and Migration Studies* 47 (12): 2833–53. <https://doi.org/10.1080/1369183X.2020.1739393>.
- Li, X., and X. Liu. 2005. "Foreign Direct Investment and Economic Growth: An Increasingly Endogenous Relationship." *World Development* 33 (3): 393–407. <https://doi.org/10.1016/j.worlddev.2004.11.001>.
- Lim, K.S. 1996. "Biblotheca - Pursuit of a Malaysian Dream." 1996. <https://bibliotheca.limkitsiang.com/>.
- . 2021. "Blog Archive." 2021. <https://limkitsiang.com/archive-main.htm>.
- Liow, J. 2002. "Desecuritising the 'Illegal Indonesian Migrant Worker' Problem in Malaysia's Relations with Indonesia." *IDSS Commentaries*, September 2002. <https://www.rsis.edu.sg/rsis-publication/rsis/537-desecuritising-the-illegal/#.Y-LnPnZBw2x>.
- Liu-Farrer, G., and K. Shire. 2021. "Who Are the Fittest? The Question of Skills in National Employment Systems in an Age of Global Labour Mobility." *Journal of Ethnic and Migration Studies* 47 (10): 2305–22. <https://doi.org/10.1080/1369183X.2020.1731987>.
- Lloyd, P.J. 1996. "Globalisation, Foreign Investment and Migration." In *International Trade and Migration in the APEC Region*, edited by P.J. Lloyd and L.S. Williams. Melbourne: Oxford University Press.
- Llull, J. 2018. "Immigration, Wages, and Education: A Labour Market Equilibrium Structural Model." *The Review of Economic Studies* 85 (3): 1852–96. <https://doi.org/10.1093/restud/rdx053>.
- Loayza, N. V, R. Ranciè, L. Servén, and J. Ventura. 2007. "Macroeconomic Volatility and Welfare in Developing Countries: An Introduction." *The World Bank Economic Review* 21 (3): 343–57.

<https://doi.org/10.1093/wber/lhm017>.

- Loganathan, T., D. Rui, C.-W. Ng, and N.S. Pocock. 2019. "Breaking down the Barriers: Understanding Migrant Workers' Access to Healthcare in Malaysia." Edited by M.B. Laws. *PLOS ONE* 14 (7): 24. <https://doi.org/10.1371/journal.pone.0218669>.
- Long, J.B. De. 1992. "Productivity Growth and Machinery Investment: A Long-Run Look, 1870-1980." 92/85. EUI Working Paper. Florence.
- López-Sala, A., and D. Godenau. 2022. "In Private Hands? The Markets of Migration Control and the Politics of Outsourcing." *Journal of Ethnic and Migration Studies* 48 (7): 1610–28. <https://doi.org/10.1080/1369183X.2020.1857229>.
- Low, C.C. 2017. "A Strategy of Attrition through Enforcement: The Unmaking of Irregular Migration in Malaysia." *Journal of Current Southeast Asian Affairs* 36 (2): 101–36. <https://doi.org/10.1177/186810341703600204>.
- Lu, Y., and F. Hou. 2020. "Immigration System, Labor Market Structures, and Overeducation of High-Skilled Immigrants in the United States and Canada." *International Migration Review* 54 (4): 1072–1103. <https://doi.org/10.1177/0197918319901263>.
- Lucas, R.E. 1990. "Why Doesn't Capital Flow from Rich to Poor Countries?" *The American Economic Review* 80 (2): 92–96. <https://www.jstor.org/stable/2006549>.
- . 1993. "On the Determinants of Direct Foreign Investment: Evidence from Asia East and Southeast Asia." *World Development* 21 (3): 391–406. [https://doi.org/10.1016/0305-750X\(93\)90152-Y](https://doi.org/10.1016/0305-750X(93)90152-Y).
- Lücke, M., and T. Stöhr. 2018. "Heterogeneous Immigrants, Exports and Foreign Direct Investment: The Role of Language Skills." *World Economy* 41 (6): 1529–48. <https://doi.org/10.1111/twec.12598>.
- Maddison, A. 2010. "Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD." 2010. <http://www.ggdcd.net/MADDISON/oriindex.htm>.
- Mahlstein, K., C. McDaniel, S. Schropp, and M. Tsigas. 2022. "Estimating the Economic Effects of Sanctions on Russia: An Allied Trade Embargo." *The World Economy*, 1–40. <https://doi.org/10.1111/twec.13311>.
- Malecki, E.J., and M.C. Ewers. 2007. "Labor Migration to World Cities: With a Research Agenda for the Arab Gulf." *Progress in Human Geography* 31 (4): 467–84. <https://doi.org/10.1177/0309132507079501>.
- Manchin, M., and S. Orazbayev. 2018. "Social Networks and the Intention to Migrate." *World Development* 109: 360–74. <https://doi.org/10.1016/j.worlddev.2018.05.011>.
- Mandelman, F.S., and A. Zlate. 2022. "Offshoring, Automation, Low-Skilled Immigration, and Labor Market Polarization." *American Economic Journal: Macroeconomics* 14 (1): 355–89. <https://doi.org/10.1257/mac.20180205>.
- Manzoor, W., N. Safdar, and H.Z. Mahmood. 2021. "A Gravity Model Analysis of International Migration from BRIC to OECD Countries Using Poisson Pseudo-Maximum Likelihood Approach." *Heliyon* 7 (6): e07357. <https://doi.org/10.1016/J.HELİYON.2021.E07357>.
- Marchal, L. 2013. "Migrations and FDI: What Do We Learn from an Agent-Based Model?" http://www.ferdi.fr/sites/www.ferdi.fr/files/marchallea_20131220.pdf.
- Marchick, D.M., and M.J. Slaughter. 2008. "Global FDI Policy: Correcting a Protectionist Drift." 34. The Bernard and Irene Schwartz Series on American Competitiveness. New York. https://cfrd8-files.cfr.org/sites/default/files/pdf/2008/06/FDI_CSR34.pdf.
- Mares, P. 2012. "Unintended Consequences of Temporary Migration to Australia." In *Unintended Consequences*, edited by M. Dickie, D. Gozdecka, and S. Reich, 81–121. Canberra: ANU Press.
- . 2013. "457s and Temporary Migration: The Bigger Picture - Inside Story." Inside Story. 2013. <https://insidestory.org.au/457s-and-temporary-migration-the-bigger-picture/>.
- Margaryan, S., A. Paul, and T. Siedler. 2021. "Does Education Affect Attitudes towards Immigration? Evidence from Germany." *Journal of Human Resources* 56 (2): 446–79.

<https://doi.org/10.3368/jhr.56.2.0318-9372R1>.

- Maria, C. Di, and E.A. Lazarova. 2012. "Migration, Human Capital Formation, and Growth: An Empirical Investigation." *World Development* 40 (5): 938–55. <https://doi.org/10.1016/j.worlddev.2011.11.011>.
- Maria, C. Di, and P. Stryszowski. 2009. "Migration, Human Capital Accumulation and Economic Development." *Journal of Development Economics* 90 (2): 306–13. <https://doi.org/10.1016/j.jdeveco.2008.06.008>.
- Mariotti, S., and R. Marzano. 2021. "The Effects of Competition Policy, Regulatory Quality and Trust on Inward FDI in Host Countries." *International Business Review* 30: 1–16. <https://doi.org/10.1016/j.ibusrev.2021.101887>.
- Markusen, J.R. 1983. "Factor Movements and Commodity Trade as Compliments." *Journal of International Economics* 14: 341–56. [https://doi.org/10.1016/0022-1996\(83\)90009-0](https://doi.org/10.1016/0022-1996(83)90009-0).
- Martin, P., and C.A. Rogers. 1995. "Industrial Location and Public Infrastructure." *Journal of International Economics* 39 (3–4): 335–51. [https://doi.org/10.1016/0022-1996\(95\)01376-6](https://doi.org/10.1016/0022-1996(95)01376-6).
- Martin, Sarah. 2020. "'New Underclass': Labor Warns on Australia's Reliance on Short-Term Migration." *The Guardian*, January 30, 2020. <https://www.theguardian.com/australia-news/2020/jan/30/new-underclass-labor-warns-on-australias-reliance-on-short-term-migration>.
- Martin, Susan, and J. Bergmann. 2021. "(Im)Mobility in the Age of COVID-19." *International Migration Review* 55 (3): 660–87. <https://doi.org/10.1177/0197918320984104>.
- Maskus, K.E., and S. Nishioka. 2009. "Development-related Biases in Factor Productivities and the HOV Model of Trade." *Canadian Journal of Economics/Revue Canadienne d'économique* 42 (2): 519–53. <https://doi.org/10.1111/j.1540-5982.2009.01518.x>.
- Massey, D.S. 1990. "Social Structure, Household Strategies, and the Cumulative Causation of Migration." *Population Index* 56 (1): 3–26. <https://www.jstor.org/stable/3644186>.
- Massey, D.S., J. Arango, G. Hugo, A. Kouaouci, A. Pellegrino, and J.E. Taylor. 1993. "Theories of International Migration: A Review and Appraisal." *Population and Development Review* 19 (3): 431–66. <https://www.jstor.org/stable/2938462>.
- Mayda, A.-M., C. Parsons, H. Pham, and P.-L. Vézina. 2022. "Refugees and Foreign Direct Investment: Quasi-Experimental Evidence from US Resettlements." *Journal of Development Economics* 156. <https://doi.org/10.1016/j.jdeveco.2022.102818>.
- Mayda, A.M. 2005. "International Migration: A Panel Data Analysis of Economic and Non-Economic Determinants." *SSRN Electronic Journal*, May, 1–41. <https://doi.org/10.2139/SSRN.725441>.
- . 2010. "International Migration: A Panel Data Analysis of the Determinants of Bilateral Flows." *Journal of Population Economics* 23 (4): 1249–74. <https://doi.org/10.1007/s001>.
- Mayer, T., and S. Zignago. 2011. "Notes on CEPII's Distances Measures: The GeoDist Database." <http://www.cepii.fr/anglaisgraph/bdd/distances.htm>.
- McAuliffe, M. 2017. "Seeking the Views of Irregular Migrants: Decision-Making, Drivers and Migration Journeys." In *A Long Way To Go: Irregular Migration Patterns, Processes, Drivers and Decision-Making*, edited by M. McAuliffe and K. Koser, 103–39. Canberra: ANU Press.
- McAuliffe, M., W. Weeks, and K. Koser. 2017. "Media and Migration: Comparative Analysis of Print and Online Media Reporting on Migrants and Migration in Selected Countries." In *A Long Way To Go: Irregular Migration Patterns, Processes, Drivers and Decision-Making*, edited by M. McAuliffe and K. Koser, 277–316. Canberra: ANU Press.
- McConnon, E. 2022. "People as Security Risks: The Framing of Migration in the UK Security-Development Nexus." *Journal of Ethnic and Migration Studies* 48 (6): 1381–97. <https://doi.org/10.1080/1369183X.2020.1851467>.
- McLean, I.W. 2013. *Why Australia Prospered: The Shifting Sources of Economic Growth*. Princeton: Princeton University Press.

- Mehlum, H., K. Moene, and R. Torvik. 2006. "Cursed by Resources or Institutions?" *The World Economy* 29 (8): 1117–31. <https://doi.org/10.1111/j.1467-9701.2006.00808.x>.
- Mehmet, O. 1977. "Colonialism, Dualistic Growth and the Distribution of Economic Benefits in Malaysia." *Southeast Asian Journal of Social Science* 5 (1–2): 1–21.
- Meinen, P., P. Parrotta, D. Sala, and E. Yalcin. 2022. "Managers as Knowledge Carriers – Explaining Firms' Internationalization Success with Manager Mobility." *Journal of International Economics* 138: 1–16. <https://doi.org/10.1016/j.jinteco.2022.103633>.
- Menon, J. 2008. "Macroeconomic Management Amid Ethnic Diversity: Fifty Years of Malaysian Experience." 102. ADB Institute Discussion Papers. Tokyo. <http://hdl.handle.net/10419/53462www.econstor.eu>.
- Meyers, E. 2000. "Theories of International Immigration Policy-A Comparative Analysis." *The International Migration Review* 34 (4): 1245–82. <https://www-jstor-org.virtual.anu.edu.au/stable/pdf/2675981.pdf>.
- Michael, M.S. 2006. "Are Migration Policies That Induce Skilled (Unskilled) Migration Beneficial (Harmful) for the Host Country?" *SSRN Electronic Journal*, Trade Policy, . <https://doi.org/10.2139/ssrn.938379>.
- Milne, R.S. 1976. "The Politics of Malaysia's New Economic Policy." *Pacific Affairs* 49 (2): 235–62.
- Ministry of Finance Malaysia. n.d. "Investors' Guide." Putrajaya. <https://www.mof.gov.my/portal/arkib/economy/2004/investors.pdf>.
- Ministry of International Trade and Industry. 2023. "Investment Guarantee Agreements." 2023. <https://www.miti.gov.my/index.php/pages/view/771>.
- Ministry of International Trade and Industry (MITI). n.d. "Malaysia: International Trade and Industry Report (Various Years)." Kuala Lumpur: Government of Malaysia.
- MIPEX. 2020. "Migrant Integration Policy Index - Data Analysis Tool." 2020. <https://www.mipex.eu/play/>.
- Mistura, F., and C. Roulet. 2019. "The Determinants of Foreign Direct Investment: Do Statutory Restrictions Matter?" 2019/01. *OECD Working Papers on International Investment*. Paris. <https://doi.org/10.1787/18151957>.
- Mixed Migration Centre. 2019. "The Ever-Rising Securitisation of Mixed Migration." *Mixed Migration Centre*, December 17, 2019. <https://mixedmigration.org/articles/the-ever-rising-securitisation-of-mixed-migration/>.
- Miyamoto, K. 2003. "Human Capital Formation and Foreign Direct Investment in Developing Countries." 211. Working Paper. Paris. <https://www.oecd.org/dev/5888700.pdf>.
- Mogab, J., R. Kishan, and D.E. Vacaflares. 2013. "Labor Market Rigidity and Foreign Direct Investment: The Case of Europe." *Applied Econometrics and International Development* 13 (1): 35–54. <http://www.usc.es/economet/journals1/aeid/aeid1314.pdf>.
- Mohamad Amin, N.S., N. Abdul Aziz, and Z. Ab Hamid. 2017. "Limitations of Social Security Laws and Policies Vis-A-Vis Migrant Workers in Malaysia." *Journal of Malaysian and Comparative Law* 44 (2): 21–38. <https://ejournal.um.edu.my/index.php/JMCL/article/view/16345/9833>.
- Mohamad, N.A. 2007. "Buying Properties in Malaysia? Highlight on Laws, Policies and Their Implication on Foreign Land Ownership." *Journal of International Trade Law & Policy* 6 (2): 54–62.
- Mok, O. 2017. "Penang Halves Fee for Some Foreign Buyers, but Raises Price Floor to RM3m." *Malay Mail*, March 16, 2017. <https://www.malaymail.com/news/malaysia/2017/03/16/penang-halves-fee-for-some-foreign-buyers-but-raises-price-floor-to-rm3m/1336267>.
- Mols, F., and J. Jetten. 2017. *The Wealth Paradox: Economic Prosperity and the Hardening of Attitudes*. Cambridge University Press.
- Mooij, R.A. De, and S. Ederveen. 2003. "Taxation and Foreign Direct Investment: A Synthesis of Empirical Research." *International Tax and Public Finance* 10: 673–93. <https://doi.org/10.1023/a:1026329920854>.
- Moran, A. 2005. *Australia: Nation, Belonging, and Globalization*. New York; London: Routledge.

- Moran, T.H. 1999. "Foreign Direct Investment and Development: A Reassessment of the Evidence and Policy Implications." In *OECD Conference on the Role of International Investment in Development, Corporate Responsibilities and the OECD Guidelines for Multinational Enterprises*. Paris. <http://www.oecd.org/investment/mne/2089864.pdf>.
- Moreau, F. 2022. "Update: Who Is Winning The U.S.-China Trade War? - Global Trade Magazine." *Global Trade Magazine*, March 2022. <https://www.globaltrademag.com/update-who-is-winning-the-u-s-china-trade-war/>.
- Morris, M., and C. Staritz. 2017. "Industrial Upgrading and Development in Lesotho's Apparel Industry: Global Value Chains, Foreign Direct Investment, and Market Diversification." *Oxford Development Studies* 45 (3): 303–20. <https://doi.org/10.1080/13600818.2016.1237624>.
- Morrison, S. 2014a. "End of Taxpayer Funded Immigration Advice to Illegal Boat Arrivals Saves \$100 Million." Australian Government. March 31, 2014. <https://webarchive.nla.gov.au/awa/20141221233754/http://pandora.nla.gov.au/pan/143035/20141222-1032/www.minister.immi.gov.au/media/sm/2014/sm213047.htm>.
- . 2014b. "National Border Targeting Centre Launched." Australian Government. July 14, 2014. <https://webarchive.nla.gov.au/awa/20141221233755/http://pandora.nla.gov.au/pan/143035/20141222-1032/www.minister.immi.gov.au/media/sm/2014/sm216409.htm>.
- . 2014c. "Refugee Settlement Arrangement, Joint Press Statement." Australian Government. July 26, 2014. <https://webarchive.nla.gov.au/awa/20141221233755/http://pandora.nla.gov.au/pan/143035/20141222-1032/www.minister.immi.gov.au/media/sm/2014/sm218207.htm>.
- . 2014d. "New Measures at Our Borders to Protect against Terrorist Threat." Australian Government. September 10, 2014. <https://webarchive.nla.gov.au/awa/20141221233755/http://pandora.nla.gov.au/pan/143035/20141222-1032/www.minister.immi.gov.au/media/sm/2014/sm217728.htm>.
- . 2014e. "Australia Opens Resettlement Facility on Manus Island." Australian Government. December 17, 2014. <https://webarchive.nla.gov.au/awa/20141221233756/http://pandora.nla.gov.au/pan/143035/20141222-1032/www.minister.immi.gov.au/media/sm/2014/sm220147.htm>.
- . 2020. "Border Restrictions." PM Transcripts. March 19, 2020. <https://pmtranscripts.pmc.gov.au/release/transcript-42741>.
- Mutascu, M., and S.W. Hegerty. 2022. "The Role of Refugees in the Underground Economy of the European Union." *IZA Journal of Development and Migration* 13 (1): 1–19. <https://doi.org/10.2478/izajodm-2022-0002>.
- Myrdal, G. 1957. *Economic Theory and Underdeveloped Regions*. London: Duckworth.
- Nah, A.M. 2012. "Globalisation, Sovereignty and Immigration Control: The Hierarchy of Rights for Migrant Workers in Malaysia." *Source: Asian Journal of Social Science* 40 (4): 486–508. <https://doi.org/10.1183/15685314-12341244>.
- Nambiar, S. 2009. "Revisiting Privatisation in Malaysia: The Importance of Institutional Process." *Asian Academy of Management Journal* 14 (2): 21–40.
- Naoussi, C.F., and F. Tripier. 2013. "Trend Shocks and Economic Development." *Journal of Development Economics* 103 (1): 29–42. <https://doi.org/10.1016/j.jdeveco.2013.01.004>.
- Narayanan, S., and Y.-W. Lai. 2014. "Immigrant Labor and Industrial Upgrading in Malaysia." *Asian and Pacific Migration Journal* 23 (3): 273–97. <https://doi.org/10.1177/011719681402300302>.
- Narula, R., and N. Driffield. 2012. "Does FDI Cause Development the Ambiguity of the Evidence and Why It Matters." *European Journal of Development Research* 24 (1): 1–7. <https://doi.org/10.1057/ejdr.2011.51>.
- Narula, R., and J.H. Dunning. 2010. "Multinational Enterprises, Development and Globalization: Some Clarifications and a Research Agenda." *Oxford Development Studies* 38 (3): 263–87.

<https://doi.org/10.1080/13600818.2010.505684>.

- Nathan, M. 2014. "The Wider Economic Impacts of High-Skilled Migrants: A Survey of the Literature for Receiving Countries." *IZA Journal of Migration* 3 (1): 1–21. <https://doi.org/10.1186/2193-9039-3-4>.
- National Economic Advisory Council. 2010. "New Economic Model (NEM) For Malaysia." Kuala Lumpur.
- Natoli, R., and S. Zuhair. 2011. "Measuring Progress: A Comparison of the GDP, HDI, GS and the RIE." *Social Indicators Research* 103: 33–56. <https://doi.org/10.1007/s11205-010-9695-3>.
- Navaretti, G.B., D. Checchi, and A. Turrini. 2002. "Adjusting Labour Demand: Multinational vs. National Firms A Cross-European Analysis." In *Multinationals and Labour Markets*. Venice. [https://air.unimi.it/retrieve/handle/2434/15745/85966/Adjusting Labour Demand.pdf](https://air.unimi.it/retrieve/handle/2434/15745/85966/Adjusting%20Labour%20Demand.pdf).
- Nayak, D., and R.N. Choudhury. 2014. "A Selective Review of Foreign Direct Investment Theories." 143. ARTNeT Working Paper. <http://hdl.handle.net/10625/54307>.
- NBER. 2021. "Cross-Country Historical Adoption of Technology." 2021. <https://www.nber.org/research/data/cross-country-historical-adoption-technology>.
- Ndubuisi, G., and S. Owusu. 2021. "How Important Is GVC Participation to Export Upgrading?" *World Economy* 44 (10): 2886–2907. <https://doi.org/10.1111/twec.13102>.
- Neilson, W.A. 1973. "The Australian Regulation of Foreign Direct Investment: Recent Experience Relevant to Canadian Policies." Toronto. <https://catalogue.nla.gov.au/Record/1712629>.
- Nejad, M.N., and A.T. Young. 2016. "Want Freedom, Will Travel: Emigrant Self-Selection According to Institutional Quality." *European Journal of Political Economy* 45: 71–84. <https://doi.org/10.1016/j.ejpoleco.2016.06.002>.
- Ng, E.S., and I. Metz. 2015. "Multiculturalism as a Strategy for National Competitiveness: The Case for Canada and Australia." *Journal of Business Ethics* 128 (2): 253–66. <https://doi.org/10.1007/s10551-014-2089-8>.
- Ng, E.S., D. Rajendran, G.J. Sears, and N. Ayub. 2019. "Determinants of Migrant Career Success: A Study of Recent Skilled Migrants in Australia." *International Migration* 58 (2): 30–51. <https://doi.org/10.1111/imig.12586>.
- Nguyen, A.T.N. 2019. "A Global Analysis of Factors Impacting the Intensive and Extensive Margins of Bilateral Foreign Direct Investment." *World Economy* 42: 2649–67. <https://doi.org/10.1111/twec.12827>.
- Nguyen, A.T.N., and A. Cieřlik. 2021. "Determinants of Foreign Direct Investment from Europe to Asia." *The World Economy* 44 (6): 1842–58. <https://doi.org/10.1111/TWEC.13064>.
- Nielsen, B.B., C.G. Asmussen, and C.D. Weatherall. 2017. "The Location Choice of Foreign Direct Investments: Empirical Evidence and Methodological Challenges." *Journal of World Business* 52: 62–82. <https://doi.org/10.1016/j.jwb.2016.10.006>.
- Nijkamp, P., M. Gheasi, and P. Rietveld. 2011. "Migrants and International Economic Linkages: A Meta-Overview." *Spatial Economic Analysis* 6 (4): 359–76. <https://doi.org/10.1080/17421772.2011.610814>.
- Nilsson Hakkala, K., F. Heyman, and F. Sjöholm. 2014. "Multinational Firms, Acquisitions and Job Tasks." *European Economic Review* 66: 248–65. <https://doi.org/10.1016/j.euroecorev.2013.12.003>.
- Nixon, S. 2020. "Malaysia's Middling, Misdirected Economic Management." *East Asia Forum Quarterly*, 2020. <https://press-files.anu.edu.au/downloads/press/n6584/pdf/book.pdf>.
- . 2024. "Of Rice and Men: Rice Consumption-Based Estimates of Undocumented Persons in Malaysia." *International Migration Review* 58 (1): 5–36. <https://doi.org/10.1177/01979183221126466>.
- Nogales, R., and C. Oldiges. 2021. "International Labour Migration and the Many Forms of Poverty." *Migration Studies* 9 (1): 115–41. <https://doi.org/10.1093/migration/mnaa022>.
- Noorbakhsh, F., A. Paloni, and A. Youssef. 2001. "Human Capital and FDI Inflows to Developing Countries:

- New Empirical Evidence.” *World Development* 29 (9): 1593–1610. [https://doi.org/10.1016/S0305-750X\(01\)00054-7](https://doi.org/10.1016/S0305-750X(01)00054-7).
- Norbäck, P.J., P. Skedinger, and J.L. Duanmu. 2021. “Employment Protection and FDI Revisited: New Evidence from Micro Data*.” *World Economy* 44 (3): 645–70. <https://doi.org/10.1111/twec.13087>.
- North, D.C. 1991. “Institutions.” *Journal of Economic Perspectives* 5 (1): 97–112. <https://doi.org/10.1257/jep.5.1.97>.
- Nowrasteh, A., A.C. Forrester, and C. Blondin. 2020. “How Mass Immigration Affects Countries with Weak Economic Institutions: A Natural Experiment in Jordan.” *World Bank Economic Review* 34 (2): 533–49. <https://doi.org/10.1093/wber/lhy032>.
- Nunnenkamp, P. 1989. “The Structure of External Financing in Malaysia: The Policy Framework for Foreign Direct Investment and Debt Inflows.” 368. Kiel Working Paper. Kiel. <https://hdl.handle.net/10419/504www.econstor.eu>.
- O’Brien, M.L., and M.A. Eger. 2021. “Suppression, Spikes, and Stigma: How COVID-19 Will Shape International Migration and Hostilities toward It.” *International Migration Review* 55 (3): 640–59. <https://doi.org/10.1177/0197918320968754>.
- O’Rourke, K.H., and J.G. Williamson. 1999. *Globalization and History*. Cambridge, MA: MIT Press.
- OECD. 2008. “The Impact of Foreign Direct Investment on Wages and Working Conditions.” In *Employment and Industrial Relations: Promoting Business Conduct in a Globalising Economy*, 1–31. Paris: OECD Publishing. <https://www.oecd.org/investment/mne/40848277.pdf>.
- . 2013. “OECD Investment Policy Reviews: Malaysia 2013.” *OECD Investment Policy Reviews*. <https://doi.org/10.1787/9789264194588-en>.
- . 2015. “Policy Framework for Investment: 2015 Edition.” Paris. <https://doi.org/10.1787/9789264208667-en>.
- . 2016. “OECD Economic Surveys: Malaysia 2016.” *OECD Economic Surveys: Malaysia 2016*. Paris: OECD Publishing. https://doi.org/10.1787/ECO_SURVEYS-MYS-2016-EN.
- . 2019. “Data - Programme for International Student Assessment.” OECD PISA. 2019. <https://www.oecd.org/pisa/data/>.
- . 2020. “FDI Regulatory Restrictiveness Index.” 2020. <https://www.oecd.org/investment/fdiindex.htm>.
- . 2021a. “Education at a Glance 2021.” 2021. <https://www.oecd-ilibrary.org/sites/5a49e448-en/index.html?itemId=/content/component/5a49e448-en#:~:text=International student mobility has been,twice the number in 2007>.
- . 2021b. “Global Value Chains: Efficiency and Risks in the Context of COVID-19.” *OECD Economic Studies*. Paris. <https://www.oecd.org/coronavirus/policy-responses/global-value-chains-efficiency-and-risks-in-the-context-of-covid-19-67c75fdc/#snotes-d4e361>.
- . 2022. “FDI Regulatory Restrictiveness Index.” 2022. <https://www.oecd.org/investment/fdiindex.htm>.
- Ohlin, B. 1933. *Interregional and International Trade*. Harvard Economic Studies. Cambridge, MA: Harvard University Press.
- Oishi, N. 2021. “Skilled or Unskilled?: The Reconfiguration of Migration Policies in Japan.” *Journal of Ethnic and Migration Studies* 47 (10): 2252–69. <https://doi.org/10.1080/1369183X.2020.1731984>.
- Olney, W.W., and D. Pozzoli. 2021. “The Impact of Immigration on Firm-Level Offshoring.” *The Review of Economics and Statistics* 103 (1): 177–95. https://doi.org/10.1162/REST_A_00861.
- Ong, C., and L. Ong. 2017. “Guide to Doing Business in Malaysia.” <https://www.christopherleeong.com/media/2960/08022018-clo-doing-business-in-malaysia-guide.pdf>.
- Ongkili, J.P. 1985. *Nation-Building in Malaysia 1946-1974*. Oxford University Press.

- Ortega, F., and G. Peri. 2009. "The Causes and Effects of International Migrations: Evidence from OECD Countries 1980-2005." 14833. Working Paper. Cambridge. <http://stats.oecd.org/wbos/Index.aspx?datasetcode=MIG>.
- . 2013. "The Effect of Income and Immigration Policies on International Migration." *Migration Studies* 1 (1): 47–74. <https://doi.org/10.1093/migration/mns004>.
- Ottaviano, G.I.P., and G. Peri. 2006. "The Economic Value of Cultural Diversity: Evidence from US Cities." *Journal of Economic Geography* 6: 9–44. <https://doi.org/10.1093/jeg/lbi002>.
- Ottaviano, G.I.P., G. Peri, and G.C. Wright. 2013. "Immigration, Offshoring, and American Jobs." *The American Economic Review* 103 (5): 1925–59. <https://doi.org/10.1257/aer>.
- Ottaviano, G.I.P., G. Peri, and G.C. Wright. 2018. "Immigration, Trade and Productivity in Services: Evidence from U.K. Firms." *Journal of International Economics* 112: 88–108. <https://doi.org/10.1016/j.jinteco.2018.02.007>.
- Özden, Ç., and M. Wagner. 2014. *Immigrant versus Natives? Displacement and Job Creation*. Policy Research Working Papers. Washington, DC: The World Bank. <https://doi.org/10.1596/1813-9450-6900>.
- Palovic, Z., H. Janta, and A.M. Williams. 2021. "In Search of Global Skillsets: Manager Perceptions of the Value of Returned Migrants and the Relational Nature of Knowledge." *Journal of Ethnic and Migration Studies* 47 (8): 1793–1810. <https://doi.org/10.1080/1369183X.2019.1679412>.
- Pan, Q. 2021. "Strategic Noncitizenship: Mainland Chinese Immigrants as Noncitizens in Australia." *Journal of Ethnic and Migration Studies* 47 (17): 3948–66. <https://doi.org/10.1080/1369183X.2020.1751604>.
- Papaioannou, S.K., and S.P. Dimelis. 2019. "Does FDI Increase Productivity? The Role of Regulation in Upstream Industries." *World Economy* 42 (4): 1012–31. <https://doi.org/10.1111/twec.12749>.
- Parcon, H. 2008. "Labor Market Flexibility as a Determinant of FDI Inflows." 08–07. <https://core.ac.uk/download/pdf/7163267.pdf>.
- Parham, D., H. To, N. Ratna, S. Regan, and Q. Grafton. 2015. "Migration and Productivity in Australia." Canberra. https://crawford.anu.edu.au/files/uploads/crawford01_cap_anu_edu_au/2015-12/dibp_final_report.pdf.
- Parliament of Australia. 2021. "ParlInfo - Advanced Search." 2021. <https://parlinfo.aph.gov.au/parlInfo/search/search.w3p;adv=yes;resCount=Default>.
- Parreñas, R.S., R. Silvey, M.C. Hwang, and C.A. Choi. 2019. "Serial Labor Migration: Precarity and Itinerancy among Filipino and Indonesian Domestic Workers." *International Migration Review* 53 (4): 1230–58. <https://doi.org/10.1177/0197918318804769>.
- Pasetti, F., and C. Conte. 2021. "Refugees and Beneficiaries of Subsidiary Protection: Measuring and Comparing Integration Policies." *Global Policy* 12 (3): 350–60. <https://doi.org/10.1111/1758-5899.12951>.
- Paul, J., and P. Jadhav. 2020. "Institutional Determinants of Foreign Direct Investment Inflows: Evidence from Emerging Markets." *International Journal of Emerging Markets* 15 (2): 245–61. <https://doi.org/10.1108/IJOEM-11-2018-0590>.
- Pavlínek, P., B. Domański, and R. Guzik. 2009. "Industrial Upgrading through Foreign Direct Investment in Central European Automotive Manufacturing." *European Urban and Regional Studies* 16 (1): 43–63. <https://doi.org/10.1177/0969776408098932>.
- Pedersen, P., M. Pytlilkova, and N. Smith. 2004. "Selection and Network Effects? Migration Flows into 27 OECD Countries, 1990-2000." 1104. *IZA Discussion Paper*. Discussion Paper. Bonn. <https://doi.org/10.1016/j.euroecorev.2007.12.002>.
- Pemstein, D., K.L. Marquardt, E. Tzelgov, Y.-T. Wang, J. Medzihorsky, J. Krusell, F. Miri, and J. Von Römer. 2021. "The V-Dem Measurement Model: Latent Variable Analysis for Cross-National and Cross-Temporal Expert-Coded Data." Gothenburg. www.v-dem.net.

- Peres, M., W. Ameer, and H. Xu. 2018. "The Impact of Institutional Quality on Foreign Direct Investment Inflows: Evidence for Developed and Developing Countries." *Economic Research* 31 (1): 626–44. <https://doi.org/10.1080/1331677X.2018.1438906>.
- Peri, G., and Z. Rutledge. 2022. "Economic Assimilation of Mexicans and Central Americans in the United States." *IZA Journal of Development and Migration* 13 (1): 26. <https://doi.org/10.2478/izajodm-2022-0003>.
- Peri, G., and V. Yassenov. 2019. "The Labor Market Effects of a Refugee Wave: Synthetic Control Method Meets the Mariel Boatlift." *Journal of Human Resources* 54 (2): 267–309. <https://doi.org/10.3368/jhr.54.2.0217.8561R1>.
- Peters, M.E. 2017. "Immigration, Trade, and Firm Mobility: A Political Dilemma Book Title: Trading Barriers Book Subtitle: Immigration and the Remaking of Globalization." In *Trading Barriers: Immigration and the Remaking of Globalization*, 15–40. Princeton University Press.
- Pethe, H. 2007. "Un-Restricted Agents? International Migration of the Highly Skilled Revisited." *Social Geography Discussions* 3: 211–36. <https://doi.org/10.5194/sgd-3-211-2007>.
- Pham, L.H., and W. Wongsurawat. 2020. "FDI Determinants: Dynamic Extreme Bounds Analysis." *International Journal of Emerging Markets* 16 (6): 1126–49. <https://doi.org/10.1108/IJOEM-04-2018-0191>.
- Phillips, J., and H. Spinks. 2013a. "Boat Arrivals in Australia since 1976." *Department of Parliamentary Services*. Canberra. https://www.aph.gov.au/about_parliament/parliamentary_departments/parliamentary_library/publications/rp/rp1314/boatarrivals.
- . 2013b. "Immigration Detention in Australia." Canberra. <http://www.immi.gov.au/managing-australias-borders/detention/about/background.htm>.
- Phillips, R., and J. Henderson. 2009. "Global Production Networks and Industrial Upgrading: Negative Lessons from Malaysian Electronics." *Journal of Development Studies* 25: 38–61. <https://doi.org/10.20446/JEP-2414-3197-25-2-38>.
- Pholphirul, P., and P. Rukumnuaykit. 2017. "Does Immigration Always Promote Innovation? Evidence from Thai Manufacturers." *Journal of International Migration and Integration* 18 (1): 291–318. <https://doi.org/10.1007/s12134-016-0480-2>.
- Phyo, E.E., H. Goto, and M. Kakinaka. 2018. "International Migration, Foreign Direct Investment, and Development Stage in Developing Economies." *Review of Development Economics*, no. 00: 1–17. <https://doi.org/10.1111/rode.12577>.
- Pillai, P. 1999. "The Malaysian State's Response to Migration." *Sojourn: Journal of Social Issues in Southeast Asia*, 14 (1): 178–97. <https://www.jstor-org.virtual.anu.edu.au/stable/pdf/41057017.pdf?refreqid=excelsior%3A2d92fc89ee14a3e20a7b1456dc9fcf0d>.
- Piore, M.J. 1979. *Birds of Passage: Migrant Labor and Industrial Societies*. New York, US: Cambridge University Press. <https://doi.org/10.2307/2066952>.
- Piper, N., and S. Rother. 2022. "Governing Regional Migration from the 'Bottom-up': A Nodal Approach to the Role of Transnational Activist Networks in Asia." *Journal of Ethnic and Migration Studies* 48 (12): 2927–44. <https://doi.org/10.1080/1369183X.2021.1972569>.
- Piyapromdee, S. 2021. "The Impact of Immigration on Wages, Internal Migration, and Welfare." *The Review of Economic Studies* 88 (1): 406–53. <https://doi.org/10.1093/restud/rdaa029>.
- Platt, L., J. Polavieja, and J. Radl. 2022. "Which Integration Policies Work? The Heterogeneous Impact of National Institutions on Immigrants' Labor Market Attainment in Europe Immigrant Wage Gaps and Labor Market Performance in Europe." *International Migration Review* 56 (2): 344–75. <https://doi.org/10.1177/01979183211032677>.
- Pokarier, C.J. 2000. "Politics of Foreign Direct Investment in Australia, 1960-96." Canberra: Australian National University. <https://doi.org/10.25911/5D778436DC662>.

- . 2015. “Australia’s Foreign Investment Policy: A Historical Perspective.” 111. Working Paper. Canberra. <https://eaber.org/document/australias-foreign-investment-policy-a-historical-perspective/>.
- Pope, D., and G. Withers. 1993. “Do Migrants Rob Jobs? Lessons of Australian History, 1861-1991.” *The Journal of Economic History* 53 (4): 719–42. <https://www.jstor.org/stable/2122637>.
- Porter, M.E., and J.W. Rivkin. 2012. “Prosperity at Risk: Findings of Harvard Business School’s Survey on U.S. Competitiveness.” [https://www.hbs.edu/faculty/Publication Files/Prosperity at Risk - HBS Survey on U.S. Competitiveness_335134e0-0fb8-4957-b5c6-c0850e5898f4.pdf](https://www.hbs.edu/faculty/Publication%20Files/Prosperity%20at%20Risk%20-%20HBS%20Survey%20on%20U.S.%20Competitiveness_335134e0-0fb8-4957-b5c6-c0850e5898f4.pdf).
- Poudel, S.S. 2022. “SAARC Is Dead. Long Live Subregional Cooperation.” *The Diplomat*, September 27, 2022. <https://thediplomat.com/2022/09/saarc-is-dead-long-live-sub-regional-co-operation/>.
- Powell, B. 2015. “Introduction.” In *The Economics of Immigration: Market-Based Approaches, Social Science, and Public Policy*, edited by B. Powell, 249. New York, US: Oxford University Press.
- Productivity Commission. 2016. “Migrant Intake into Australia - Inquiry Report.” Canberra. <https://www.pc.gov.au/inquiries/completed/migrant-intake/report>.
- . 2020. “Foreign Investment in Australia.” <https://www.pc.gov.au/research/completed/foreign-investment>.
- Purvis, D.D. 1972. “Technology, Trade and Factor Mobility.” *The Economic Journal* 82 (327): 991–99. <https://www.jstor.org/stable/2230263>.
- Pussey, M. 1991. *Economic Rationalism in Canberra: A Nation-Building State Changes Its Mind*. New York: Cambridge University Press.
- Rajan, R.S. 2004. “Measures to Attract FDI: Investment Promotion, Incentives and Policy Intervention.” *Economic and Political Weekly* 39 (1): 12–16. <https://www.jstor.org/stable/4414454>.
- Rajendran, D., E.S. Ng, G. Sears, and N. Ayub. 2020. “Determinants of Migrant Career Success: A Study of Recent Skilled Migrants in Australia.” *International Migration* 58 (2): 30–51. <https://doi.org/10.1111/imig.12586>.
- Ramaswami, V.K. 1968. “International Factor Movement and the National Advantage.” *Economica* 35 (139): 309–10. <https://www.jstor.org/stable/2552308>.
- Rasiah, R. 2011. “Is Malaysia Facing Negative Deindustrialization?” *Pacific Affairs* 84 (4): 715–36. <https://doi.org/10.5509/2011844715>.
- Rasiah, R., Y.X. Shan, and K. Salih. 2017. “Sub-National Governments and Technological Upgrading in the Integrated Circuit Cluster in Northern Malaysia.” *Innovation and Development* 7 (2): 287–307. <https://doi.org/10.1080/2157930X.2016.1261760>.
- Ravenstein, E.G. 1885. “The Laws of Migration.” *Journal of the Statistical Society of London* 48 (2): 167. <https://doi.org/10.2307/2979181>.
- Razak, N. 2009. “The 2010 Budget Speech.” Putrajaya: Government of Malaysia. <https://www.mof.gov.my/portal/arkib/budget/2010/bs10.pdf>.
- . 2013. “The 2014 Budget Speech.” Putrajaya: Government of Malaysia. https://www.bnm.gov.my/documents/20124/761700/bs14_en.pdf.
- . 2014. “The 2015 Budget Speech.” Putrajaya: Government of Malaysia. https://www.bnm.gov.my/documents/20124/761697/budget2015_en.pdf.
- . 2015. “The 2016 Budget Speech.” Putrajaya: Government of Malaysia. [https://www.parlimen.gov.my/images/webuser/berita terkini/BT2015/Ucapan Bajet 2016\(eng\).pdf](https://www.parlimen.gov.my/images/webuser/berita%20terkini/BT2015/Ucapan%20Bajet%202016(eng).pdf).
- . 2016. “The 2017 Budget Speech.” Putrajaya: Government of Malaysia.
- . 2017. “The 2018 Budget Speech.” Putrajaya: Malaysiakini. <https://www.malaysiakini.com/news/399792>.
- Refugee Council of Australia. 2013. “Australia’s Refugee and Humanitarian Program 2013-14 Community

- Views on Current Challenges and Future Directions.” Sydney. <https://apo.org.au/sites/default/files/resource-files/2013-02/apo-nid34946.pdf>.
- . 2020. “Timeline of Refugees and Australia.” May 6, 2020. <https://www.refugeecouncil.org.au/timeline/>.
- Rehm, M.X. 2022. “What Will Japan’s Great Reopening Mean for Immigration Policy?” *The Diplomat*, November 11, 2022. <https://thediplomat.com/2022/11/what-will-japans-great-reopening-mean-for-immigration-policy/>.
- Reijnders, L.S.M., M.P. Timmer, and X. Ye. 2021. “Labour Demand in Global Value Chains: Is There a Bias against Unskilled Work?” *World Economy* 44 (9): 2547–71. <https://doi.org/10.1111/twec.13092>.
- Reserve Bank of Australia (RBA). 2021. “Australian Economic Statistics 1949-1950 to 1996-1997: Occasional Paper No. 8.” 2021. <https://www.rba.gov.au/statistics/frequency/occ-paper-8.html>.
- Ressia, S., G. Strachan, and J. Bailey. 2017. “Going up or Going down? Occupational Mobility of Skilled Migrants in Australia.” *Asia Pacific Journal of Human Resources* 55 (1): 64–85. <https://doi.org/10.1111/1744-7941.12121>.
- Restelli, G. 2021. “The Effects of Development Aid on Irregular Migration to Europe: Deterrence or Attraction?” *Development Policy Review* 39 (6): 926–52. <https://doi.org/10.1111/dpr.12546>.
- Reyes, J.-D. 2017. “FDI Spillovers and High-Growth Firms in Developing Countries.” 8243. Policy Research Working Paper. <http://econ.worldbank.org>.
- Rho, D., and S. Sanders. 2021. “Immigrant Earnings Assimilation in the United States: A Panel Analysis.” *Journal of Labor Economics* 39 (1): 37–78. <https://doi.org/10.1086/708615>.
- Ricardo, D. 1817. *On the Principles of Political Economy and Taxation*. London: John Murray. <https://socialsciences.mcmaster.ca/econ/ugcm/3ll3/ricardo/Principles.pdf>.
- Rizvi, A. 2020. “A Fairer Pathway Improving Australia’s Temporary Migration Program.” <https://mckellinstitute.org.au/research/reports/a-fairer-pathway/>.
- Robertson, P.E. 2007. “Reflections on Australia’s Skilled Migration Policy.” 2007/22. School of Economics Discussion Paper. Sydney.
- Rodrik, D. 2018. “Populism and the Economics of Globalization.” *Journal of International Business Policy* 1 (1–2): 12–33. <https://doi.org/10.1057/s42214-018-0001-4>.
- Rostow, W.W. 1980. *Why the Poor Get Richer and the Rich Slow Down: Essays in the Marshallian Long Period*. Austin: University of Texas Press.
- Roy, A.D. 1951. “Some Thoughts on the Distribution of Earnings.” *Oxford Economic Papers* 3 (2): 135–46. <https://www.jstor.org/stable/2662082>.
- Ruhs, M., and P. Martin. 2008. “Numbers vs. Rights: Trade-Offs and Guest Worker Programs.” *International Migration Review* 42 (1): 249–65. <https://doi.org/10.1111/j.1747-7379.2007.00120.x>.
- Sabir, S., A. Rafique, and K. Abbas. 2019. “Institutions and FDI: Evidence from Developed and Developing Countries.” *Financial Innovation* 5 (1): 1–20. <https://doi.org/10.1186/S40854-019-0123-7/TABLES/15>.
- Sadiq, K. 2005. “When States Prefer Non-Citizens over Citizens: Conflict over Illegal Immigration into Malaysia.” *International Studies Quarterly* 49 (1): 101–22. <https://www.jstor.org/stable/3693626>.
- Salt, J. 1992. “Migration Processes among the Highly Skilled in Europe.” *International Migration Review* 26 (2): 484–505. <https://doi.org/10.1177/019791839202600216>.
- Samuelson, P.A. 1948. “International Trade and the Equalisation of Factor Prices.” *The Economic Journal* 58 (230): 163–84. <https://doi.org/10.2307/2225933>.
- Sana, M. 2021. “Public Opinion on Refugee Policy in the United States, 1938-2019: Increasing Support for Refugees and the Sympathy Effect.” *International Migration Review* 55 (2): 574–604. <https://doi.org/10.1177/0197918320954129>.

- Sanderson, M.R., and J. Kentor. 2008. "Foreign Direct Investment and International Migration." *International Sociology* 23 (4): 514–39. <https://doi.org/10.1177/0268580908090726>.
- Saptono, P.B., G. Mahmud, and L.-F. Lei. 2022. "Do International Remittances Promote Poverty Alleviation? Evidence from Low- and Middle-Income Countries." *IZA Journal of Development and Migration* 13 (1): 1–20. <https://doi.org/10.2478/izajodm-2022-0006>.
- Sarma, N. 2021. "Queuing to Leave: A New Approach to Immigration." *IZA Journal of Development and Migration* 12 (1): 1–29. <https://doi.org/10.2478/izajodm-2021-0007>.
- Sarvimäki, M., and K. Hämmäläinen. 2016. "Integrating Immigrants: The Impact of Restructuring Active Labor Market Programs." *Journal of Labor Economics* 34 (2): 479–508. <https://doi.org/10.1086/683667>.
- Sassen, S. 1988. *The Mobility of Labour and Capital*. Cambridge, UK: Cambridge University Press.
- Sauvant, K.P. 2021. "Improving the Distribution of FDI Benefits: The Need for Policy-Oriented Research, Advice, and Advocacy." *Journal of International Business Policy* 4 (2): 244–61. <https://doi.org/10.1057/s42214-021-00109-6>.
- Sauvant, K.P., P. Mallampally, and P. Economou. 1993. "Foreign Direct Investment and International Migration." *Transnational Corporations* 2 (1): 33–69. <http://eds.a.ebscohost.com/laureatech.idm.oclc.org/eds/pdfviewer/pdfviewer?sid=044ee509-1bbf-4d5c-a772-bc5b2f65c18a%40sessionmgr4004&vid=7&hid=4110>.
- Saxenian, A. 1999. "Silicon Valley's New Immigrant Entrepreneurs." San Francisco. https://www.ppic.org/content/pubs/report/R_699ASR.pdf.
- . 2007. "The International Mobility of Entrepreneurs and Regional Upgrading in India and China." In *The International Mobility of Talent: Types, Causes, and Development Impact*, edited by A. Solimano, 117–44. Oxford: University Press. http://people.ischool.berkeley.edu/~anno/Papers/International_Mobility_of_Entrepreneurs.pdf.
- Sayed Mahadi, S.A.R. 2014. "Indonesian Labour Migration to Sabah: Changes, Trends and Impacts."
- Schaeffer, M. 2013. "Can Competing Diversity Indices Inform Us about Why Ethnic Diversity Erodes Social Cohesion? A Test of Five Diversity Indices in Germany." *Social Science Research* 42 (3): 755–74. <https://doi.org/10.1016/j.ssresearch.2012.12.018>.
- Schmid, S.D. 2021. "Stagnated Liberalization, Long-Term Convergence, and Index Methodology: Three Lessons from the CITRIX Citizenship Policy Dataset." *Global Policy* 12 (3): 338–48. <https://doi.org/10.1111/1758-5899.12903>.
- Schneider, F., and B.S. Frey. 1985. "Economic and Political Determinants of Foreign Direct Investment." *World Development* 13 (2): 161–75. [https://doi.org/10.1016/0305-750X\(85\)90002-6](https://doi.org/10.1016/0305-750X(85)90002-6).
- Seewann, L. 2022. "My Values, Their Values: How Value Conceptualisations Influence Attitudes towards Immigration." *Journal of Ethnic and Migration Studies* 48 (9): 2091–2114. <https://doi.org/10.1080/1369183X.2021.2004100>.
- Sequeira, S., N. Nunn, and N. Qian. 2020. "Immigrants and the Making of America." *The Review of Economic Studies* 87 (1): 382–419. <https://doi.org/10.1093/restud/rdz003>.
- Setzler, B., and F. Tintelnot. 2021. "The Effects of Foreign Multinationals on Workers and Firms in the United States." *The Quarterly Journal of Economics* 136 (3): 1943–91. <https://doi.org/10.1093/QJE/QJAB015>.
- Sherratt, T. 2021. "Historic Hansard." 2021. <http://search.historichansard.net/>.
- Shin, G. 2020. "The Direct and Indirect Impacts of Liberal Immigration Policies on the United States' Economy." *Economics* 14 (2020–15): 1–29. <https://doi.org/10.5018/ECONOMICS-EJOURNAL.JA.2020-15>.
- Shrestha, M. 2020. "Get Rich or Die Tryin': Perceived Earnings, Perceived Mortality Rates, and Migration Decisions of Potential Work Migrants from Nepal." *The World Bank Economic Review* 34 (1): 1–27. <https://doi.org/10.1093/wber/lhz023>.

- Shrestha, M.B., and G.R. Bhatta. 2018. "Selecting Appropriate Methodological Framework for Time Series Data Analysis." *The Journal of Finance and Data Science* 4: 71–99. <https://doi.org/10.1016/j.jfds.2017.11.001>.
- Shukla, P., and J. Cantwell. 2016. "Migrants and the Foreign Expansion of Firms." *Rutgers Business Review* 1 (1): 44–56.
- . 2018. "Migrants and Multinational Firms: The Role of Institutional Affinity and Connectedness in FDI." *Journal of World Business* 53 (6): 835–49. <https://doi.org/10.1016/j.jwb.2018.07.003>.
- Simoes, A.J.G., and C.A. Hidalgo. 2011. "The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development." *Observatory of Economic Complexity*. 2011. <https://oec.world/>.
- Simone, G. De, and M. Manchin. 2012. "Outward Migration and Inward FDI: Factor Mobility between Eastern and Western Europe." *Review of International Economics* 20 (3): 600–615. <https://doi.org/10.1111/j.1467-9396.2012.01041.x>.
- Sinha, M., D. Tirtosuharto, and P.P. Sengupta. 2019. "Impacts of FDI and Remittance Inflows in Developing Asia: A Comparative Dynamic Panel Study." *Economic Papers* 38 (4): 311–28. <https://doi.org/10.1111/1759-3441.12260>.
- Sjaastad, L.A. 1962. "The Costs and Returns of Human Migration." *Journal of Political Economy* 70 (5, Part 2): 80–93. <https://doi.org/10.1086/258726>.
- Smet, D. De. 2013. "Employing Skilled Expatriates: Benchmarking Skilled Immigration Regimes across Economies." <http://iab.worldbank.org/>.
- Solano, G., and T. Huddleston. 2021. "Beyond Immigration: Moving from Western to Global Indexes of Migration Policy." *Global Policy* 12 (3): 327–37. <https://doi.org/10.1111/1758-5899.12930>.
- Sonnenfeld, J., S. Tian, F. Sokolowski, M. Wyrebkowski, and M. Kasproicz. 2022. "Business Retreats and Sanctions Are Crippling the Russian Economy." *SSRN Electronic Journal*, SSRN Papers, , 1–118. <https://doi.org/10.2139/ssrn.4167193>.
- SOPEMI. n.d. "SOPEMI - Continuous Reporting System on Migration." OECD. Accessed February 22, 2023. <https://migration-demography-tools.jrc.ec.europa.eu/catalogue/dataset/sopemi>.
- Soysa, I. De, and J.R. Oneal. 1999. "Boon or Bane? Reassessing the Productivity of Foreign Direct Investment." *American Sociological Review* 64 (5): 766–82. <https://www.jstor.org/stable/2657375>.
- Spinks, H. 2010. "Background Note: Australia's Migration Program." Sydney.
- Stark, O. 2004. "Rethinking the Brain Drain." *World Development* 32 (1): 15–22. <https://doi.org/10.1016/j.worlddev.2003.06.013>.
- Stark, O., and D.E. Bloom. 1985. "The New Economics of Labor Migration." *The American Economic Review* 75 (2): 173–78. <https://www.jstor.org/stable/1805591>.
- Stark, O., C. Helmenstein, and A. Prskawetz. 1997. "A Brain Gain with a Brain Drain." *Economics Letters* 55 (2): 227–34. [https://doi.org/10.1016/S0165-1765\(97\)00085-2](https://doi.org/10.1016/S0165-1765(97)00085-2).
- Stiglitz, J.E. 2017. "The Overselling of Globalization." *Business Economics* 52 (3): 129–37. <https://doi.org/10.1057/s11369-017-0047-z>.
- Straubhaar, T. 1992. "Allocational and Distributional Aspects of Future Immigration to Western Europe." *International Migration Review* 26 (2): 462–83. <https://www.jstor.org/stable/2547067>.
- Sufian, F., F. Kamarudin, and A. md. Nassir. 2016. "Determinants of Efficiency in the Malaysian Banking Sector: Does Bank Origins Matter?" *Intellectual Economics* 10 (1): 38–54. <https://doi.org/10.1016/j.intele.2016.04.002>.
- Suhardiman, D., J. Rigg, M. Bandur, M. Marschke, M.A. Miller, N. Pheuangsavanh, M. Sayatham, and D. Taylor. 2021. "On the Coattails of Globalization: Migration, Migrants and COVID-19 in Asia." *Journal of Ethnic and Migration Studies* 47 (1): 88–109. <https://doi.org/10.1080/1369183X.2020.1844561>.
- Sumption, M. 2019. "The Australian Points-Based System: What Is It and What Would Its Impact Be in the

- UK?" The Migration Observatory. 2019. <https://migrationobservatory.ox.ac.uk/resources/reports/the-australian-points-based-system-what-is-it-and-what-would-its-impact-be-in-the-uk/>.
- Sun, W., and D. Xie. 2022. "Cross-Border M&As and the Performance of Chinese Acquiring Firms." *World Economy* 45 (5): 1614–47. <https://doi.org/10.1111/twec.13200>.
- Surak, K. 2018. "Migration Industries and the State: Guestwork Programs in East Asia." *International Migration Review* 52 (2): 487–523. <https://doi.org/10.1111/imre.12308>.
- . 2021. "Millionaire Mobility and the Sale of Citizenship." *Journal of Ethnic and Migration Studies* 47 (1): 166–89. <https://doi.org/10.1080/1369183X.2020.1758554>.
- Tabellini, M. 2019. "Gifts of the Immigrants, Woes of the Natives: Lessons from the Age of Mass Migration." *The Review of Economic Studies* 87: 454–86. <https://doi.org/10.1093/restud/rdz027>.
- Tabuchi, T., and J.-F. Thisse. 2002. "Taste Heterogeneity, Labor Mobility and Economic Geography." *Journal of Development Economics* 69 (1): 155–77. [https://doi.org/10.1016/S0304-3878\(02\)00057-3](https://doi.org/10.1016/S0304-3878(02)00057-3).
- Talent Corp. 2023. "Introduction to the Residence Pass-Talent." 2023. <https://rpt.talentcorp.com.my/about/introduction-and-benefits>.
- Tang, H., and Y. Zhang. 2021. "Do Multinationals Transfer Culture? Evidence on Female Employment in China." *Journal of International Economics* 133: 1–21. <https://doi.org/10.1016/j.jinteco.2021.103518>.
- Tani, M. 2020. "Migration Policy and Immigrants' Labor Market Performance." *International Migration Review* 54 (1): 35–57. <https://doi.org/10.1177/0197918318815608>.
- Tausch, A. 2010. "Globalisation and Development: The Relevance of Classical 'Dependency' Theory for the World Today." *International Social Science Journal* 61: 467–88. <https://doi.org/10.1111/issj.12190>.
- Tavares, A.T., and S. Young. 2010. "FDI and Multinationals: Patterns, Impacts and Policies." *International Journal of the Economics of Business* 12 (1): 3–16. <https://doi.org/10.1080/1357151042000323148>.
- Thapa, J., and T. Gørgens. 2006. "A Duration Analysis of the Time Taken to Find the First Job for Newly Arrived Migrants in Australia." 527. Center for Economic Policy Research Discussion Paper. Canberra.
- Theng Theng, T., and J. Romadan. 2020. "The Economic Case against the Marginalisation of Migrant Workers in Malaysia." LSE Southeast Asia Blog. October 1, 2020. <https://blogs.lse.ac.uk/seac/2020/10/01/the-economic-case-against-the-marginalisation-of-migrant-workers-in-malaysia/>.
- Theoharides, C. 2018. "Manila to Malaysia, Quezon to Qatar: International Migration and Its Effects on Origin-Country Human Capital." *Journal of Human Resources* 53 (4): 1022–49. <https://doi.org/10.3368/jhr.53.4.0216-7714r1>.
- Thomson, R., and P.-C. Athukorala. 2020. "Global Production Networks and the Evolution of Industrial Capabilities: Does Production Sharing Warp the Product Space?" *Oxford Economic Papers* 72 (3): 731–47. <https://doi.org/10.1093/oep/gpaa007>.
- Tian, K., E. Dietzenbacher, and R. Jong-A-Pin. 2022. "Global Value Chain Participation and Its Impact on Industrial Upgrading." *World Economy* 45 (5): 1362–85. <https://doi.org/10.1111/twec.13209>.
- Tillett, A. 2021. "Temporary Migration Scheme 'Broken.'" *Australian Financial Review*, September 1, 2021. <https://www.afr.com/politics/federal/temporary-migration-scheme-broken-20210901-p58nvn>.
- Tjaden, J., and F.A. Dunsch. 2021. "The Effect of Peer-to-Peer Risk Information on Potential Migrants – Evidence from a Randomized Controlled Trial in Senegal." *World Development* 145: 13. <https://doi.org/10.1016/j.worlddev.2021.105488>.
- Tomohara, A. 2017. "Does Immigration Crowd out Foreign Direct Investment Inflows? Tradeoff between Contemporaneous FDI-Immigration Substitution and Ethnic Network Externalities." *Economic Modelling* 64 (March): 40–47. <https://doi.org/10.1016/j.econmod.2017.03.008>.

- Tong, S.Y. 2005. "Ethnic Networks in FDI and the Impact of Institutional Development." *Review of Development Economics*. <https://doi.org/10.1111/j.1467-9361.2005.00294.x>.
- Triandafyllidou, A. 2018. "Migrant Smuggling: Novel Insights and Implications for Migration Control Policies." *The Annals of the American Academy* 676: 212–21. <https://doi.org/10.1177/0002716217752330>.
- Tsai, P.-L. 1994. "Determinants of Foreign Direct Investment and Its Impact on Economic Growth." *Journal of Economic Development* 19 (1): 137–63. <http://www.jed.or.kr/full-text/19-1/6.pdf>.
- Tüselmann, H., and S.R. Buzdugan. 2016. "Making the Most of FDI for Industrial Upgrading and Development: Harnessing IIA Policy-Space through Evidence Based Lessons for 'New' Industrial Policy." In *UNCTAD Multi-Year Expert Meeting: Investment, Innovation and Entrepreneurship for Productive Capacity Building and Sustainable Development*, 12.
- Tyner, J.A. 2000. "Global Cities and Circuits of Global Labor: The Case of Manila, Philippines." *The Professional Geographer* 52 (1): 61–74. <https://doi.org/10.1111/0033-0124.00205>.
- UN Population Division. 2019a. "International Migrant Stock: The 2019 Revision." 2019. <https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates17.asp>.
- . 2019b. "World Population Policies." 2019. <https://www.un.org/en/development/desa/population/theme/policy/wpp2019.asp>.
- . 2021. "International Migrant Stock." International Migrant Stock. 2021. <https://www.un.org/development/desa/pd/content/international-migrant-stock>.
- UNCTAD. 2003. "Malaysia." In *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries*, 135–84. New York and Geneva.
- . 2011. "Best Practices in Investment for Development: How to Attract and Benefit from FDI in Small Countries; Lessons from Estonia and Jamaica." New York and Geneva. https://unctad.org/en/Docs/diaepcb2010d4_en.pdf.
- United Nations Conference on Trade and Development (UNCTAD). 2020. "World Investment Report 2020." New York.
- . 2021. "UNCTADstat." UNCTAD Statistics. 2021. <https://unctadstat.unctad.org/EN/>.
- . 2022. "Impact of the COVID-19 Pandemic on Trade and Development." Geneva. https://unctad.org/system/files/official-document/osg2022d1_en.pdf.
- . 2023. "UNCTADstat." UNCTAD Statistics. 2023. <https://unctadstat.unctad.org/EN/>.
- United Nations Development Programme (UNDP). 2019. "Human Development Data (1990-2017)." 2019. <http://hdr.undp.org/en/data>.
- . 2024. *Human Development Report 2023/2024: Reimagining Cooperation in a Polarized World*. New York: UNDP.
- Uren, D. 2015. *Takeover*. Melbourne: Black Inc. Books. <https://www.blackincbooks.com.au/books/takeover>.
- Vedder, R.K. 2015. "Immigration Reform: A Modest Proposal." In *The Economics of Immigration: Market-Based Approaches, Social Science, and Public Policy*, edited by B. Powell, 249. New York, US: Oxford University Press.
- Ven, J. van de, S. Voitchovsky, and H. Buddelmeyer. 2014. "When General Skills Are Not Enough: The Influence of Recent Shifts in Australian Skilled Migration Policy on Migrant Employment Outcomes." *SSRN Electronic Journal*, Melbourne Institute Working Paper Series, , 1–50. <https://doi.org/10.2139/ssrn.2512604>.
- Vernon, R. 1966. "International Investment and International Trade in the Product Cycle." *The Quarterly Journal of Economics* 80 (2): 190. <https://doi.org/10.2307/1880689>.
- Vigdor, J. 2015. "The Civic and Cultural Assimilation of Immigrants to the United States." In *The Economics*

- of *Immigration: Market-Based Approaches, Social Science, and Public Policy*, edited by B. Powell. New York, US: Oxford University Press.
- Vink, M., A.H. Schakel, D. Reichel, N.C. Luk, and G.-R. de Groot. 2019. "The International Diffusion of Expatriate Dual Citizenship." *Migration Studies* 7 (3): 362–83. <https://doi.org/10.1093/migration/mnz011>.
- Vitus, K., and F. Jarlby. 2022. "Between Integration and Repatriation—Frontline Experiences of How Conflicting Immigrant Integration Policies Hamper the Integration of Young Refugees in Denmark." *Journal of Ethnic and Migration Studies* 48 (7): 1496–1514. <https://doi.org/10.1080/1369183X.2021.1873112>.
- Vosko, L.F. 2022. "Temporary Labour Migration by Any Other Name: Differential Inclusion under Canada's 'new' International Mobility Regime." *Journal of Ethnic and Migration Studies* 48 (1): 129–52. <https://doi.org/10.1080/1369183X.2020.1834839>.
- Vrăbiescu, I. 2022. "Deportation, Smart Borders and Mobile Citizens: Using Digital Methods and Traditional Police Activities to Deport EU Citizens." *Journal of Ethnic and Migration Studies* 48 (8): 1891–1908. <https://doi.org/10.1080/1369183X.2020.1796267>.
- Wallerstein, I. 1974. *The Modern World-System*. New York: Academic Press.
- Walmsley, T.L., A. Winters, and A. Ahmed. 2011. "The Impact of the Movement of Labour: Results from a Model of Bilateral Migration Flows." *Global Economy Journal* 11 (4): 1850240. <https://doi.org/10.2202/1524-5861.1738>.
- Wang, M., M.C.S. Wong, and J. Granato. 2013. "The Effect of Foreign Direct Investment on International Migration: Does Education Matter?" *World Economy* 36 (5): 537–62. <https://doi.org/10.1111/twec.12047>.
- Wang, X. 2021. "US Permanent Residency, Job Mobility, and Earnings." *Journal of Labor Economics* 39 (3): 639–71. <https://doi.org/10.1086/709689>.
- Warr, P.G. 1987. "Malaysia's Industrial Enclaves: Benefits and Costs." *The Developing Economies* 25 (1): 30–55.
- Wassink, J. 2020. "International Migration Experience and Entrepreneurship: Evidence from Mexico." *World Development* 136: 1–15. <https://doi.org/10.1016/j.worlddev.2020.105077>.
- Weeraratne, B. 2021. "Migrant Workers' Wage Offers: The Paradox of the Involvement of Recruitment Intermediaries." *Migration Studies* 9 (3): 1418–60. <https://doi.org/10.1093/migration/mnz055>.
- Wheeler, D., and A. Mody. 1992. "International Investment Location Decisions." *Journal of International Economics* 33 (1–2): 57–76. [https://doi.org/10.1016/0022-1996\(92\)90050-T](https://doi.org/10.1016/0022-1996(92)90050-T).
- White, R. 2016. *Cultural Differences and Economic Globalization: Effects on Trade, Foreign Direct Investment, and Migration*. New York, US: Routledge.
- Withers, G., T. Endres, and L. Perry. 1985. "Labour." In *Australian Historical Statistics*, 145–65. Canberra: Australian National University. <https://2r6hgx20i76dmmstq2nmlon1-wpengine.netdna-ssl.com/wp-content/uploads/2019/10/13-Historical-Statistics-Chapter-9-final.pdf>.
- World Bank. 1995. "Malaysia Meeting Labor Needs: More Workers and Better Skills."
- . 2020a. "Doing Business 2020." Doing Business. 2020. <https://www.doingbusiness.org/en/data/doing-business-score>.
- . 2020b. "Open Data." 2020. <https://data.worldbank.org/>.
- . 2021. "Open Data." <https://data.worldbank.org/>.
- . 2022. "Deepening Linkages between South Asia and Southeast Asia: Synthesis Report." Washington, D.C.
- . 2023. "Open Data." 2023. <https://data.worldbank.org/>.
- World Bank Group. 2010. "Investing Across Borders 2010." Washington.

<http://hdl.handle.net/10986/27883>.

- Wright, C.F., and S. Clibborn. 2017. "Back Door, Side Door, or Front Door: An Emerging De-Facto Low-Skilled Immigration Policy in Australia." *Comparative Labor Law & Policy Journal* 39 (1): 165–88. <https://heinonline.org/HOL/Page?handle=hein.journals/cllpj39&id=177&collection=journals&index=>.
- Wright, C.F., S. Clibborn, N. Piper, and N. Cini. 2016. "Economic Migration and Australia in the 21st Century." Sydney. https://www.lowyinstitute.org/sites/default/files/wright_et_al_economic_migration_and_australia_in_the_21st_century_0_0.pdf.
- Wu, J., J. Wood, K. Oh, and H. Jang. 2021. "Evaluating the Cumulative Impact of the US–China Trade War along Global Value Chains." *World Economy* 44 (12): 3516–33. <https://doi.org/10.1111/twec.13125>.
- Xu, X., and K. Sylwester. 2016. "The Effects of Foreign Direct Investment on Emigration: The Roles of FDI Source Country, Education, and Gender." *Economic Modelling* 55 (June): 401–9. <https://doi.org/10.1016/J.ECONMOD.2016.03.001>.
- Yacob, S. 2020. "Recalling the Guthrie Dawn Raid." *New Straits Times*, February 2, 2020. <https://www.nst.com.my/opinion/columnists/2020/02/561707/recalling-guthrie-dawn-raid>.
- Yang, B. 2021. "Following the State-Owned Enterprises: Chinese Expatriate Construction Workers in Zambia." *Asian and Pacific Migration Journal* 30 (4): 428–49. <https://doi.org/10.1177/01171968211069726>.
- Yasmin, N.A. 2019. "Opportunities For Refugee Access To Work In Malaysia." Kuala Lumpur. https://www.isis.org.my/wp-content/uploads/2019/10/POLICY-BRIEF_REFUGEE1.pdf.
- Yayboke, E. 2021. "Rethinking Migration Is a Security Imperative—Just Not How You Might Think." CSIS, February 23, 2021. <https://www.csis.org/analysis/rethinking-migration-security-imperative—just-not-how-you-might-think>.
- Yeats, A.J. 1998. "Just How Big Is Global Production Sharing?" 1871. *World Bank Policy Research Working Paper*. World Bank Policy Research Working Paper. New York: Oxford University Press.
- Yu, J., and J.P. Walsh. 2010. "Determinants of Foreign Direct Investment: A Sectoral and Institutional Approach." *IMF Working Papers* 10 (187): 1–27. <https://doi.org/10.5089/9781455202218.001>.
- Zeira, J. 1998. "Workers, Machines, and Economic Growth." *The Quarterly Journal of Economics* 113 (4): 1091–1117.
- Zelinsky, W. 1971. "The Hypothesis of the Mobility Transition." *American Geographical Society* 61 (2): 219–49. <https://www.jstor.org/stable/43617885>.
- Zhan, J.X. 2021. "GVC Transformation and a New Investment Landscape in the 2020s: Driving Forces, Directions, and a Forward-Looking Research and Policy Agenda." *Journal of International Business Policy* 4: 206–20. <https://doi.org/10.1057/s42214-020-00088-0>.
- Zhan, S., L. Huang, and M. Zhou. 2022. "Differentiation from above and below: Evolving Immigration Policy and the Integration Dilemma in Singapore." *Asian and Pacific Migration Journal* 31 (1): 3–25. <https://doi.org/10.1177/01171968221083703>.
- Zhang, K.H., and J.R. Markusen. 1999. "Vertical Multinationals and Host-Country Characteristics." *Journal of Development Economics* 59 (2): 233–52. [https://doi.org/10.1016/S0304-3878\(99\)00011-5](https://doi.org/10.1016/S0304-3878(99)00011-5).
- Zhang, M., and R. Yang. 2022. "FDI and Spillovers: New Evidence from Malaysia's Manufacturing Sector." *Review of Development Economics* 26 (2): 847–77. <https://doi.org/10.1111/RODE.12857>.

Appendix A

Undocumented migrant estimates

Appendix A summarises a supplementary thesis paper that estimated undocumented persons in Malaysia. The full paper is published in the *International Migration Review* (Nixon 2024).

This paper is inspired by two critical realisations early in my thesis. First, regulatory policy impact analysis is potentially confounded by migrant intake quotas, which when representing a genuine ceiling mean overall migration flows are not fully flexible to regulatory changes. Second, significant availability and reliability concerns with Malaysian migration data threatened to derail empirical applications for the policy indicators. A large problem herein is the absence of credible undocumented migrant estimates despite their potentially commanding an equivalent or greater share of total immigration. The presence of two significant migration channels means policy changes could either affect overall immigration or incentivise category shifting (for example, tightening legal pathways could result in higher undocumented migration). More optimistically, the unenforceability of formal quotas means that with reliable undocumented migrant estimates, the resulting population represents a superior measure of immigration flow changes attributable to regulatory policies.

Quantifying undocumented migration is inherently challenging, with traditional methods requiring data that Malaysia lacks and recent innovative methods are based on unpublished data and provide point-in-time estimates only. Methods producing longitudinal data are unprecedented, despite empirical requirements and potential applications. Methodological limits within the field prompted lateral thinking towards a solution that did not depend on fallible migration statistics.

Inspiration ultimately led to a novel approach centred on estimating the relationship between rice consumption per capita (RCPC) and economic development. Global patterns (unaffected by people movements) and nutritional survey evidence suggest RCPC first rises then falls with development due to poverty alleviation and diet diversification respectively. That Malaysia had not experienced a comparable downwards phase to some earlier developing Asian neighbours is a smoking gun that its unreliable population estimates are the cause, as aggregate consumption data is less vulnerable to estimation errors, mobility and documentation biases and political interference. Consumption data has the advantage of a long historical time series, routine capture of undocumented persons (who must eat), and many Asian governments intervene in rice markets to safeguard supply and price stability (so consumption reflects changes in demand). Population changes cannot be inferred from consumption patterns alone, with the RCPC-development relationship — modelled using countries with more reliable RCPC estimates (those with such large populations and insular societies that migration exerts minimal influence on overall populations) — more fit-for-purpose.

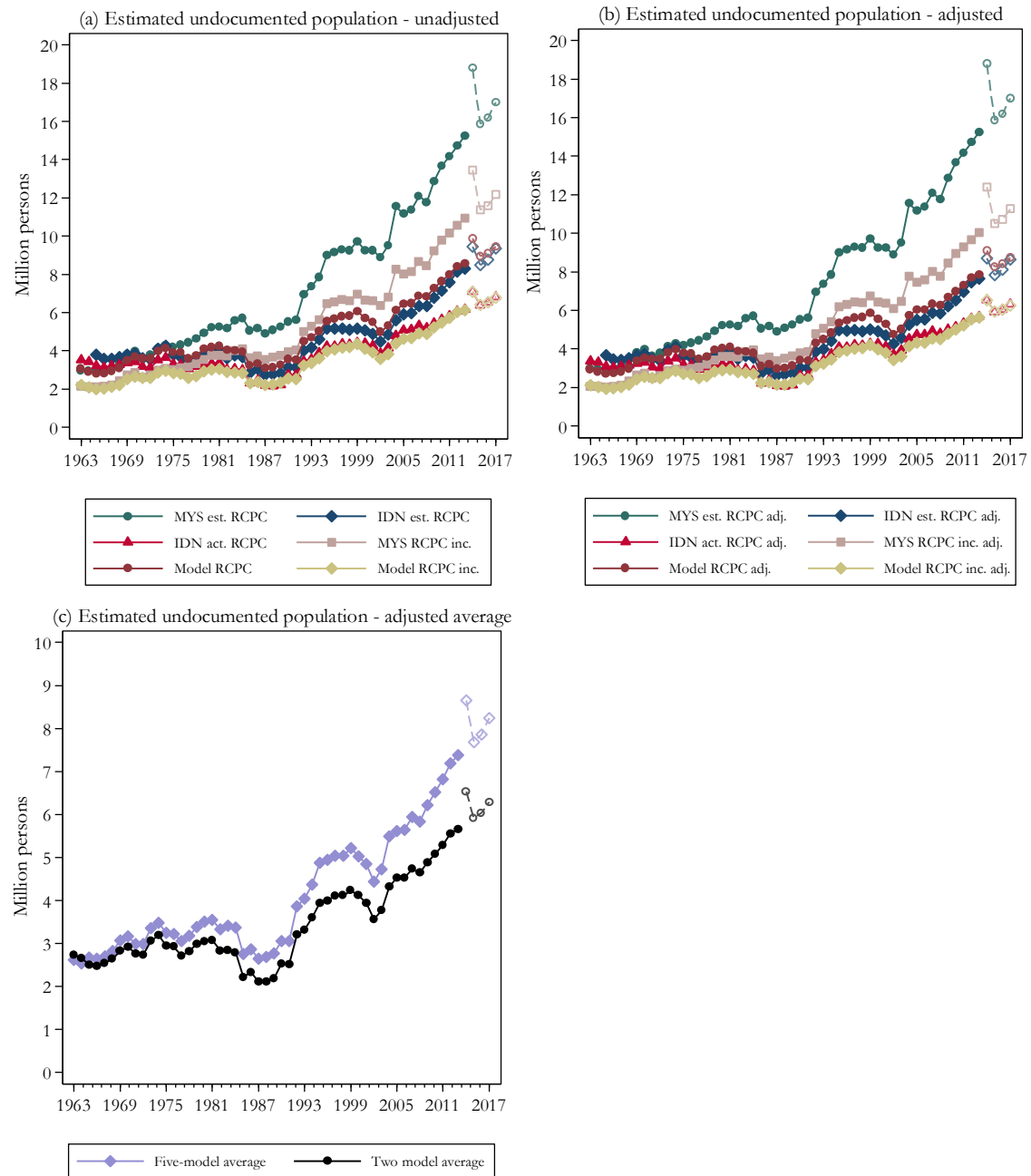
The specific methodology involves three steps. The first estimates the expected relationship between RCPC (with demographic and diet adjustments correcting for differences between Malaysia and sample countries) and economic development (based on education and health metrics) over time, controlling for price changes and time shocks. The second takes the difference between recorded rice consumption and that predicted by the RCPC-development relationship and total official population to obtain residual rice consumption attributable to

the undocumented population. The third converts the residual quantity into undocumented person estimates, using six alternative assumptions for undocumented persons' RCPC.

The results imply an undocumented population of 2.6-2.75 million in 1963 and 6.28-8.24 million in 2017, with lower and upper limits reflecting clustered averages of the alternative RCPC assumptions (Figure A.1). The 2017 estimates equate to 17-21 percent of Malaysia's total population, with the beginning and end periods representing population share peaks and 1988 the period low at 11-13.5 percent. Year on-year stock changes (net additions or subtractions) are largely less than 250,000 persons but reach upwards of 750,000. The estimates are larger than previous attempts but appear plausible, given the underestimation biases of traditional approaches, the estimation of all persons not just workers, and accordance with Malaysia's migration and economic history. Comparable estimates for Thailand provide a robustness check and the insignificant confounding influences of tourism and rice smuggling are discussed.

The analysis concludes with a discussion of methodological constraints, potential future adaptations and applications for the results. While the key contribution of the paper to the wider literature is an innovative estimation method, to this thesis it provides an essential data input with empirical and policy applications. Unpublished material in earlier drafts reconciles annual fluctuations with historical economic, political and policy events, providing additional background insights supporting the analysis in Chapter 7.

Figure A.1: Estimated undocumented population totals – various measures



Notes: 'adjusted' in panel (b) relates to the application of an age-calorie adjustment to all models. The two-model average combines the 'IDN act. RCPC adj.' and the 'Model RCPC inc. adj.' models while the five-model average combines all but the 'MYS est. RCPC adj.'.

Appendix B

Policy indicators for Australia and Malaysia

This section summarises four supporting papers detailing the quantitative indicators for Australia's and Malaysia's FDI and migration policies. The papers outline my methodological approach and provide a summary of historical policy changes and patterns.

As earlier chapters note, tackling gaps in understanding FDI and migration policy impacts is a leading motivation for this thesis. Policy is often excluded from empirical analysis or enters models via contestable proxies or time dummies, owing to a dearth of quantitative policy metrics. Policy measurement is methodologically challenging and remains an underdeveloped field. High entry barriers make developing meaningful quantitative indicators for even one country, level of government and point in time difficult let alone indicators expanding on these dimensions. Researching, codifying and contextualising historical laws and regulations is resource intensive and requires localised expertise.

Existing indicators focus on major legal changes and notable policy announcements, as these are typically easier to identify and codify. Their representativeness from the migrant or investor perspective is questionable, as supplementary regulations, proclamations and guidance material also provide discretionary regulatory powers. Beyond such instruments, the exercise of discretionary powers through informal or unpublicised rules, or at the changing whims of government ministers or officials, further differentiates the lived policy environment from that existing in legal statutes. Herein lies the difference between policy on paper and in practice at the heart of measurement difficulties.

Such ambiguities exist across all areas of policy not just migration and FDI. Take prior approval or screening requirements for example. Countries including Australia that screen investment proposals involve complex rules differentiated by investment sector, quantum and origin country, each with potentially different criteria, obligations, rights, fees and processing times. Some combination of laws, regulations, guidance documents, review procedures and compliance activity govern design and implementation, ultimately influencing the incentives for prospective investors. The usefulness of indicators based on high-level legislation depends on how prescriptive and reflective laws are of the end incentives facing investors and their representatives. The prospects of obtaining investment approval can vary dramatically over time despite legislation remaining unchanged. For example, there was only a handful of changes to Australia's foreign investment screening legislation between 1975-2014 but dozens of policy changes and an everchanging investor experience. Fifteen Treasurers have been charged with interpreting the discretionary 'national interest' test central to investment approvals, each bringing their individual views to bear. To suggest investment screening has changed little as metrics focused on core legislation do betrays any accordance with the reality facing investors.

Developing indicators for Australia and Malaysia seeks to capture both a more comprehensive and detailed formal policy baseline (more closely reflecting 'on paper' rules) and supplementary metrics representing environmental enrichments ('in practice' proxies). Where sensible and practicable to do so, subcategory and agglomerated metrics are developed consistently across the various indicators.

The following sections detail the specific approach to each indicator.

Baseline FDI policy indicators (FDIPI — for Australia and Malaysia)

The first and central ‘on paper’ metrics are the baseline policy indicators. For FDI, significant inspiration comes from the OECD’s FDI Regulatory Restrictiveness Index and associated Policy Framework for Investment (OECD 2020; 2015), which is the leading comparable metric. The OECD’s index provides overall scores for about 69 countries and selected years since 1997, with values assigned according to features including restrictions on equity ownership, screening/approval, personnel and other (operating) restrictions including land ownership and profit repatriation. The baseline indicator largely follows the categorisation and weighting of the OECD index but diverges in several important respects:

- Firstly, policy changes not levels are the central unit. This has both advantages and disadvantages — principally suiting a single-country indicator and emphasising iterative environment changes, avoiding difficult judgements across categories and time. It does however lead to possible miscomparison of levels over time.
 - Numerical magnitudes are assigned to individual policy changes based on categorisation as a minor, mid-level or major change and whether more or less restrictive from an investor perspective.
 - Magnitudes are determined considering the change’s impact in terms of the number of investors and scale of impact vis-à-vis the pre-change state. More (less) restrictive measures receive a positive (negative) score. Minor changes receive a score of 0.5 or 1, mid-level changes 1.5 or 2, and major changes no more than 5.
 - For comparison, the OECD index assigns scores based on pre-defined levels at the time of recording. For example, a sector closed to new investment receives a score of 1, minority shareholdings permitted 0.5 and so on. Foreign investment screening receives a maximum score of 0.2 as relatively unintrusive. As there are few assigned levels within categories, major policy changes do not always affect scores.
- The OECD does not explicitly publish the policies or changes that contribute to index scores. It provides high-level information on policy changes in annual updates but it remains difficult to reconcile scores with settings. My indicators are accompanied by a sortable and itemised spreadsheet of policy changes with explanations, score assignments and links to the source information.
- It reflects a broad search of primary parliamentary (Hansard), legislative and political sources (government websites/speeches) supplemented by secondary research to identify gaps. This also helps contextualise the changes for magnitude purposes, with parliamentary debate highlighting the impacts of often impenetrable changes.
- Unlike the OECD index, no exclusions are made for national security related measures. While this is of marginal practical meaning in the Australian context to 2020 — Australia since introduced a national security test on 1 January 2021 — it is an important clarification for consistent categorisation under the parliamentary debate sub-indicator (below).
- There is some non-critical re-categorisation in terms of policies. For example, land ownership is afforded its own subcategory while personnel/directorship requirements are subordinated under other restrictions. Nationalisations and privatisations are also included under other restrictions as distinct from equity limits due to their competition implications. As land ownership and business investment approvals are conceptually

distinct generally and in the Australian context, though procedurally intertwined for much of post-war history, changes to screening arrangements for land ownership are categorised under 'land ownership' not 'screening/approval'.

The numerical index starts at 100 (in 1946 for Australia and 1957 for Malaysia) for each policy subcategory and adjusts individually, with the subcategories being equity and ownership, screening/approval, land ownership, and other policies/nationalisation. The overall FDIPI is then calculated two ways: (1) via a simple averaging of the four subcategory scores to produce an unweighted indicator; and (2) with assigned weightings to reflect the relative importance of equity and ownership (0.6) compared to other restrictions (0.2), screening/approval and land ownership (0.1 each). The weighted index largely accords with the OECD's approach to relative valuation on a 'levels' basis, whereas the unweighted scores are more reflective of a change focus. The OECD argues investment decisions are disproportionately influenced by equity/ownership limits relative to approvals, land access and other constraints.

For Malaysia only, an additional subcategory isolates investment incentives policies from 'other restrictions', recognising the particularly large role incentives have played in its FDI policymaking. The separate 'incentives' sub-indicator also makes adjustments based on MIDA approvals with and without tax incentives (Bank Negara Malaysia (BNM), n.d.). Annual variations in the number of approvals without incentives of less than 10 percent are allocated +1 point, 10 to 25 percent allocated +2 points and greater than 25 percent allocated +3 points.

Alternative screening/approval measure (for Australia)

Annual statistical reporting of Australia's foreign investment approval framework outcomes provides opportunities to make more nuanced adjustments to reflect policy implementation. The argument for doing so arises from the national interest test underpinning the framework being completely discretionary, with its interpretation dependent on the Treasurer and government of the day. For the years 1968-1974, rejected cases were publicly gazetted. Since the introduction of the *Foreign Takeovers Act* in 1975, Foreign Investment Review Board annual reports provide data on total proposals considered, their outcomes (rejections, withdrawals and approvals with and without conditions) and processing efficiency. Translating these metrics into a fair representation of stringency is nonetheless challenging for several reasons (which also represent why this metric is considered an alternative not primary):

- National interest interpretation is not only a function of the decision maker and context but the investments proposed at the time. Changes to the screening system such as higher or lower thresholds, the inclusion or exclusion of real estate transactions, and the exclusion of non-sensitive/duplicate transactions can significantly alter the nature of investments considered.
- Rejections (either absolute or proportionate) may seem an obvious basis for comparing the most serious impact on investors, but the nature of the system means they represent a subset of proposals knocked back by decision makers. Investor confidentiality is guaranteed unless an adverse decision is made, and as the process involves close collaboration between investor representatives and the Treasury secretariat, investors have visibility of a forthcoming rejection. Most investors choose to withdraw their proposal rather than cop the embarrassment associated with rejection, with only high profile and already public cases in recent years not thus incentivised. Withdrawals can also represent controversy and/or processing

sluggishness, as this was a popular mechanism for extending the statutory deadline on complex proposals without a gazettal publicising it.

- The imposition of conditions on approvals suffers from limited transparency. A large majority of conditions are also relatively innocuous and simply reinforce laws rather than meaningfully alter the investor's intentions. Examples include standard conditions on developers to begin construction within a set period, on temporary visa holders to dispose of property on departing Australia, or on businesses to abide by tax laws. On the other hand, sensitive proposals may be subject to more intrusive conditions such as equity limits (sell-down requirements), operating restrictions (Australian directorships, land use and employment requirements) or reporting obligations. Conditions are thus too sensitive to shifts in the composition of proposals and policies to provide a meaningful intertemporal comparison.
- Processing times are also an important indicator of restrictiveness, with delays a potential deterrent to investors. Transparency and consistency of reporting over time is not great, with selected annual reports not including processing times and the reporting format has experienced four changes. Average processing times were published for the first 11 years before the metric shifted to x% within 20 and 30 days (for about four years). It then transitioned to x% within 30 days (plus a 10-day benchmark briefly) before stopping entirely in 2015-16. The 2019-20 report included median processing times for the preceding two years. Unfortunately, there is no comparable data on proposals that are significantly delayed (upwards of 12 months; well beyond the statutory limit of 30 days).
- The absence of a single compelling measure adds compilation issues, particularly the inclusion of processing times (days or percentages) alongside rejections and withdrawals (proportion of overall cases). This precludes a combined continuous index, with a method using year-on-year variation preferred.
- Reports are financial (to 30 June) not calendar years.

Given these constraints, the metric is compiled as follows:

- converting financial to calendar years using simple averaging (i.e., the average of 2014-15 and 2015-16 provides 2015);
- calculating rejections and withdrawals separately as a proportion of cases decided (rejection and withdrawal rates);
- assigning a value of 1 where each of the following were greater than the value in the preceding year: (1) rejection rate; (2) withdrawal rate; and (3) processing times (providing a total of 3 possible points);
- translating points into changes to the baseline screening/approval sub-index as follows: 0 points = -2; 1 point = -1; 2 points = +1; 3 points = +2; with
- missing values adjusted manually.

Baseline migration policy indicators (MPI — for Australia and Malaysia)

The MPI is developed using an equivalent methodological approach to the FDIPI. The DEMIG database (de Haas, Natter, and Vezzoli 2016) provides significant inspiration, which tracked migration policy changes between 1945-2013 according to well-defined policy subcategorisation. The DEMIG database represents the most comprehensive resource recording major migration policy changes over time, making it an ideal template and a valuable source of secondary data for Australia. Its methodology is largely replicated with

adaptations and extensions, with existing listings verified with primary sources. Akin to the FDIPI, several significant features of the MPI diverge from DEMIG's approach:

- Most significantly, numerical magnitudes are assigned to each policy change — whereas the DEMIG database assigns qualitative descriptions only (minor or major change that is more or less restrictive).
 - Magnitudes are assigned according to the FDIPI approach. DEMIG's evaluations (where applicable) are largely agreed but not where a deeper analysis of context demanded it. For example, the creation of a new temporary visa category designed to supplant a permanent residency visa is deemed more not less restrictive.
 - DEMIG's analysis treats all measures equally when comparing trends across time (simply adding the number of more and less restrictive policy changes), which exaggerates minor changes and diminishes major policies. Changes are particularly misrepresented in years where one significant reform package (say increasing restrictiveness) occurs alongside several minor (liberalising) changes that if treated equally imply an overall policy directionality unrepresentative of the true policy environment.
- On a raw listing basis, the MPI is twice as comprehensive, including 435 individual entries to DEMIG's 205. Not every trivial legislative or other policy change is included, with truly finetuning or technical changes left out. The greater detail instead arises from a more thorough investigation of primary sources (similar approach to FDIPI).
- DEMIG's policy categorisation is maintained but with some differences surrounding policy tools. DEMIG includes intake targets, quotas and migration outcomes as policy changes whereas MPI treats them as contextual only. This reflects empirical application considerations (targets and quotas can override regulatory policies of interest and, as a supply measure, are less useful to a study of policy influences on migration demand).

The MPI follows the same numerical indexing approach and has the following (DEMIG-inspired) subcategories: legal entry and stay, exit, border and land control, and integration. The overall MPI is then calculated two ways: (1) via a simple averaging of the four subcategory scores to produce an unweighted MPI; and (2) with weightings to reflect the relative importance of legal entry and stay and integration (each weighted 0.35) compared to border and land control (0.2) and exit (0.1). These are based on approximate proportionate shares of policy and debate interest (using Australian parliamentary evidence), and therefore anticipated relevance to migration decisions. In simple terms, aspiring migrants — the vast majority of which at least want to be authorised/documentated — are more concerned about visa options and post-entry outcomes (rights, employment, support networks) than detention and deportation possibilities. All categories are nonetheless intertwined and likely to have some influence, including between migrant types (for example, the treatment of refugees is likely to influence labour and family migrants). While different migrant types are categorised in the indicator dataset, they are not separately distinguished in calculating the index. An exception for Malaysia is an additional indicator excluding policies aimed at skilled migrants, enabling separate analysis of skilled and unskilled migration policies.

Migration attitudes sub-indicator (Australia)

Opinion polls and survey data provide potentially valuable insights into the prevailing policy and broader environment facing immigrants. Increasingly negative attitudes towards some or all migrants can influence migration decisions directly or indirectly by prompting tighter policy implementation. Policies are rarely so inflexibly designed and decision-makers so unaccountable to public opinion as to be unresponsive to attitude shifts.

Immigration has been a popular subject of Australian public opinion surveys throughout much of the post-war period sampled by this indicator, extensively so in the past decade. Over 680 potentially relevant questions and associated response summaries were identified through an extensive scoping of primary and secondary records — including polling records, online newspapers, research organisation reports and academic publications. Records identified in secondary sources are verified with primary sources with few exceptions. Only surveys with credible and nationally representative samples (of at least the voting or adult population) are included.

Identified records are subsequently categorised into general, and where necessary specific, topics. Within topics, questions are analysed for consistency and comparability over time and wording; attempting as far as possible to eliminate potential bias. Topics capturing issues and questions sufficiently homogeneous at the general level are computed without further differentiation, with scores normalised (using ordinary min-max normalisation) then converted to a -1 to 1 scale (to place years without data at 0). More complex topics are further differentiated to maximise comparability, with the normalisation and conversion process applied at the sub-topic level before an additional step combining them at the topic level through simple averaging. The final indicator includes 523 questions after eliminating those with ambiguous or unhelpful phrasing and/or insufficient data points for comparability.

Five topics are identified and computed separately:

- *Too great/too few (TGTF/migration quantum)* — by far the most frequently asked individual question relates to perceptions of the migrant intake, whether it is too great/should be reduced or too few/should be increased. This provides a general temperature gauge of the migration policy environment. The specific question has varied over time and pollster/questioner, with those involving incompletely reported data or egregiously leading preliminary information or phrasing (e.g. 'last year's immigration intake was an all-time record' or 'Australia's population is too high') excluded. No sub-topic splits are undertaken for this category;
- *Entry discrimination* — a niche topic most frequently asked early in the sample period, this captures source country discriminatory preferences. The most frequent of which relate to British, other European, Asian and Middle Eastern migrants. It follows a similar pattern to TGTF prior to 1970 and between 2010-13 — suggesting racial discrimination underpinned broader immigration anxiety in those periods — but diverged at other times for which data exist. There are no subcategory splits;
- *Integration* — the most popular broad topic is immigrant integration in Australian society, commanding more than a third of the questions included in the final cut. For comparability reasons, integration is split into:
 - *Assimilation/maintain culture* — many questions capture general perspectives on whether migrants should become more 'Australian' or

- maintain their ancestral cultures or both; and what this means for cultural diversity. This category is sufficiently diverse as to be split into ‘high’ and ‘low’ aspirations — for example the difference between asking whether migrants should behave a certain way (low) versus whether actors (usually governments) should provide funds/support for them to (high);
- Identity/prejudice/discrimination — three related sub-topics separated for calculation purposes, these ask what characteristics are associated with being a ‘real’ Australian (importance of birth country, race, religion, citizenship, language fluency etc.), perceptions of racial prejudice, and experiences of discrimination;
 - Multiculturalism — this simply asks respondents whether they support multiculturalism in Australia;
 - Equal opportunities — asks respondents for their views on equal opportunities for immigrants vis-à-vis locals; and
 - Rights/responsibilities — a small category capturing attitudes to whether migrants should be sufficiently proficient in English, be entitled to social welfare, be able to purchase land and other miscellaneous rights.
- *Impacts* — the flipside of integration is the impact migrants have on economy and society. This is split into four sub-topics:
 - General contribution/openness to ideas — broad perceptions questions regarding the impact immigrants have on Australia;
 - Economy — usually broached as whether migrants are ‘good for the economy’;
 - Jobs — almost always negatively framed, asking whether migrants take away jobs from locals or contribute to unemployment; and
 - Crime — a similarly loaded question asking whether migrants increase crime.
 - *Refugees* — migrants that seek refuge/asylum in Australia or enter through non-legal channels represent a distinct category. Perceptions of refugees and other migrants entering or staying without a visa tend to be lower than economic or family reunion migrants, owing to fairness concerns and integration challenges. Questions on refugees largely covered just two general subjects but with significant, meaningful variation in framing. The first is how many refugees should be accepted (more or less in total or banned entirely) and the second the process of handling (settlement and deportation policies, mandatory detention, offshore or onshore processing). Sub-topics are organised around these aspects.

The five topics are aggregated through simple averaging to create an overall migration attitudes indicator. Normalisation and simple averaging are chosen in the absence of a compelling alternative.

Two important limitations are noteworthy. While separating questions into sub-topics and normalising the results avoids the need for more difficult normative judgements, it attaches greater importance to the skewness of the distribution of responses within sub-topics. Additionally, the skewness of the dataset itself (more questions this century than last) potentially biases longitudinal comparisons, though this was unavoidable. Using the TGTF topic indicator alone relieves this problem and provides a useful alternative baseline, but it ignores changes in the other four important areas that followed distinct patterns to attitudes surrounding migrant numbers.

FDI attitudes sub-indicator (Australia)

The intent was to produce an equivalent attitudes sub-indicator for FDI. Unfortunately, FDI has been less popular among Australian public opinion surveys throughout much of the post-war period, fluctuating in and out of popular debate. Pockets of heightened concern were usually necessary to prompt polling, with the 85 questions and responses identified mostly clustered around periods of increased interest.

Another barrier to developing a metric based on the polling results is the heterogeneity of questions. Had the exact same question been asked for 75 years then 85 observations would suffice, but questions vary considerably in wording and focus. Some include different reference points such as 100%, 50% or 30% foreign equity in a company while asking if the respondents support that level. Others ask normative questions like is FDI good or bad, or is there too much or too little. The vast majority after 1970 specifically reference an investor country (America, Japan, China etc.) or sector (mining, agriculture, housing etc.) rather than FDI overall. And with so few observations it is impossible to cluster the questions and merge them meaningfully.

It was therefore decided that the most representative FDI attitudes indicator is a dummy variable equal to 1 if a poll occurred in that year. The logic being that polling itself indicates heightened interest and concern about FDI regardless of the results. There are 36 years (out of 75) in which polls occurred and polls in every decade other than the 1940s.

Parliamentary debate (opposition attitudes) migration sub-indicator (Australia)

While surveys and polling measure societal attitudes directly, there are challenges to making comparisons across different time periods and question framing. Question phrasing and context add potential biases that are not fully mitigatable, and public attitudes alone may have little influence over policy without directly entering political conversation.

An alternative measure addressing some of these concerns reflects an extensive review of Australian federal parliamentary Hansard records. Much as surveys attempt to take the temperature of the voting public on issues, a review of parliamentary records can highlight the ebb and flow of migration's topicality across time. This method eliminates concerns with question framing and time series gaps, relying simply on categorising parliamentary debate by migration sub-topic (legal entry and stay, exit, border control, integration and numbers/quota) and whether the intervention advocates a less or more restrictive policy (from the migrant perspective) or neutrally seeks information (not expressing a position). For example, an intervention arguing for improvements to migrant education programmes is classified as a less restrictive integration measure, while an intervention arguing for improved detection of visa overstayers is a more restrictive border control measure.

Records are identified and excluded based on the following procedure:

- Hansard title search for key terms with adjustments/additions made through a manual checking process;
 - Key terms included: immigration migration border refugee(s) migrant(s) immigrants alien(s) foreigner(s) multicultural diversity nationality citizenship repatriation detention offshore deport/deportation residence/residency naturalization/naturalisation visa(s) foreign+language asylum citizens racial

- prejudice discrimination colombo ethnic arrivals illegal+entry boats overseas/foreign/international+students boat+people foreign+national
- Note the search engine up to and including 1980 (Sherratt 2021) is sensitive to plurals, spelling shifts and near words. The search engine thereafter (Parliament of Australia 2021) is not, so plurals and other derivations are searched separately
 - Targeted supplementary searches based on secondary sources or the content of identified results. This helps to identify relevant debates included within omnibus bills and first speeches with generic titles.
 - False positive results are identified as 'NR' (not relevant)
 - The search captures debates from both the House of Representatives (and later including the Federation Chamber) and the Senate, including questions with and without notice, matters of public importance, adjournments, motions, petitions and debate on legislation;
 - To qualify numerically, interventions must represent a genuine query for information (for neutral) or a challenge or suggestion to alter the prevailing policy. This largely excludes interventions by members of the government ('Dorothy Dixer's'), except where the status quo is challenged. It also excludes debate where the opposition supports proposed policy without question and records where government policy statements or legislative speeches are adjourned without debate;
 - Prevailing policy here means the government's stated position rather than the law. This is important for categorising debates on legislation, with arguments against liberalising legislation deemed 'more restrictive' and vice versa. Broader debates that have not become government policy are treated differently, with defending the status quo considered 'neutral'.
 - For consistency reasons, the following rules apply to numerical scores:
 - The default is a maximum of '1' per column per search entry;
 - It is not cumulative in respect of the number of issues raised within category. For example, if a speech covers citizenship law liberalisation, increased migrant language services and anti-racism, it counts as '1' under 'less restrictive — integration'. But if it covers citizenship law tightening and increased language teaching, that counts as '1' for each of less and more restrictive.
 - Exceptions apply to maintain consistency across intervention type and Hansard recording approach variations over time:
 - For questions on notice, supplementary questions are counted separately (nullifying Hansard recording biases);
 - For debates on matters/adjournments/motions — the default applies on a per speaker basis. If a speaker has a second turn or their speech was interrupted, only one combined entry counts;
 - For legislation — the per speaker rule applies per reading stage. For the committee/consideration in detail stage, it applies to distinct amendments or topics for which questions are asked. For example, if one senator asks a series of five related committee questions on detention conditions, one entry with '1' point is recorded.
 - Individual results are checked and categorised by sub-topic and restrictiveness/neutrality; and

- Detailed records are kept for verification and tabulation purposes.

The quantification approach automatically applies additional magnitude to interventions where opposition is strongest — as more questions and more speakers are reflective of interest and concern. This similarly accounts for debates or questions that persist for multiple days and thus Hansard records.

Two measures are then produced: (1) a difference measure subtracting the number of interventions advocating more restrictive policy from less restrictive; and (2) the total number of interventions (less and more restrictive plus neutral) in a calendar year. The first indicates whether opposition pressure is in a favourable or unfavourable direction from the migrant perspective, whereas the second measures general interest in or salience of the topic. Both are adjusted by a scaling factor based on the number of sitting hours in that year (in the House of Representatives only due to availability) relative to the average over the sample period, to ensure that years with fewer sittings (such as election years) are treated with proportional important.

A total of 14,326 interventions are recorded between 1946 and 2020, of which 4,988 relate to integration, 4,267 to legal entry and stay, 771 to numbers/quota (a subset of legal entry and stay), 1,007 to exit and 3,293 to border control. The scaling factor does not significantly alter the categorical distribution, though border control adjusts down relatively more due to its modern bias (with the introduction of the Federation Chamber in 1994 boosting overall sitting hours).

Parliamentary debate (opposition attitudes) FDI sub-indicator (Australia)

An equivalent parliamentary debate indicator is constructed for FDI, noting the following specifics:

- The FDI sub-topics are equity/ownership, screening/approval, land ownership, other policies/nationalisation and more/less investment.
- Key search terms include: foreign investment expropriation investor(s) capital overseas equity enterprises company/companies multinational(s) ownership profit resources screening approval land exchange limited ltd takeover critical+infrastructure privatise privatisation nationalisation(z). A content search for 'FIRB' supplements the search for high profile investment proposals.
- A total of 3,764 interventions are recorded between 1946 and 2020, of which 546 relate to equity/ownership, 674 to screening/approval, 369 to more/less, 252 to land ownership and 1,923 to other policies/nationalisation. Temporal adjustments do not significantly alter the categorical distribution.

Lim Kit Siang blog (opposition attitudes/pressure) sub-indicators (Malaysia)

Developing equivalent 'policy in practice' indicators is particularly challenging in the Malaysian context, with a dearth of regulatory and opinion polling data limiting options. Parliamentary Hansard is recorded only in the Malay language and thus presents challenges to codification.

Prior to 2018, Malaysia was governed by a single continuous government led by the United Malays National Organisation (UMNO) in various coalition arrangements. It subsequently changed hands at the 2018 election, only to return to familiar territory in early 2020 as

component parties shifted allegiances. For just over 50 years up to 2018, a leading opposition voice has been the Democratic Action Party (DAP), which has advanced a platform of social democratic, progressive and pluralistic ideals. Spearheading the party for much of this period was Lim Kit Siang — a veteran of Malaysian politics whose outspoken and tireless persona have left an indelible mark. He has been a member of parliament for all but one term since 1969 and held roles including DAP secretary-general, parliamentary opposition leader and national chairman. Usefully for the purposes of historical analysis, a significant collection of his press releases and parliamentary speeches dating back to 1968 has been digitised and made freely accessible (Lim 1996; 2021).

The collection is unlikely to reflect every record produced in earlier years, with some pre-digital press releases/speeches lost to time. It is nonetheless a substantive and seemingly unbiased sample on which to make inferences about Malaysia's policy history. Excluding non-qualifying releases, around 13,200 are included in the analysis at an average of almost 265 per year.

Records are excluded and codified based on the following procedure:

- Records must be related to national government policy issues to qualify. Consequently, records reflecting local government issues (LKS was a member of state parliament and represented various constituent issues as a federal member), international issues for which Malaysian action was not advocated, DAP party politics, political (non-policy) issues and vague references to 'international competitiveness' are excluded;
- Broken links are excluded rather than categorised based on title alone;
- Policy issues are categorised consistent with the baseline indicator subcategories for both migration and FDI;
- Categorisation is based on a record including one or more migration- or FDI-relevant policy issues or not. One point is allocated per record and could be split among multiple migration or FDI policy categories (for example a press release relating to both legal entry and integration receives 0.5 for each category). No half scores are allocated to the 'none' category — either the article has a relevant angle (in which case it receives the entire point) or not;
- Positive scores are allocated for less restrictive interventions and negative scores to calls for more restrictive policies;
- The 'none' category is recorded to permit comparisons across time periods with varying record numbers. That is, the preferred measure is migration- or FDI-relevant issues per year as a fraction of total issues.
 - The number of qualifying records in a year ranges from 19 to 714.
 - Two years (1988 and 1996) have zero records. 1988 reflects LKS's imprisonment on sedition charges while the absence of 1996 is unclear (other than reflecting the transition between the old and new blog archives). Data users may wish to consider approaches for filling these gaps.
- Detailed records are kept for verification and tabulation purposes.

A total of 3,130 records are considered migration-relevant, with an overwhelming majority of these in the integration category. This reflects the dominance of racial and religious framing in political debate, with calls for less discriminatory policies deemed to be beneficial for migrants and locals alike. The distinction is a tricky one in any event, as racial and religious

minorities in the local population are colonial era migrants and their descendants. Regardless, there is a strong argument that the treatment of newer migrants is closely related to changes in racial and religious tensions more broadly.

Only 327 records are considered FDI-relevant, with an overwhelming majority of these in the 'other' category. This reflects the framing of most interventions as broad investment environment or investor confidence concerns, whether tied to specific policy issues or not. Many such interventions can be broadly described as either 'reputational' or 'instability' threats, including political repression/authoritarian, societal polarisation and intolerance, corruption scandals, escalating crime, terror group links and capital control shocks. There have been surprisingly few interventions in areas oft targeted by international interlocutors, especially *bumiputera* equity quotas and nationalisation/prevalence of Government-linked companies.

Appendix C

Regional policy snapshot

This appendix section summarises the methodology and supporting materials underpinning the regional policy snapshot in Chapter 8. The snapshot provides a point-in-time illustrative synopsis of the FDI, migration and complementarity policy environment in 23 Asia-Pacific countries (the 10 ASEAN countries, eight from South Asia and Australia, New Zealand, China, Japan and South Korea) at 1 April 2021. In addition to the consulting paper, an excel file detailing 207 individual policy elements per country and a supporting paper providing descriptive policy environment summaries for each country were contributed to the World Bank Group's *Deepening Linkages between South Asia and Southeast Asia report* (World Bank 2022), though to my knowledge the full contribution has yet to be published.

Snapshot development is motivated by the absence of a suitably comprehensive policy summary capturing my region of interest. Substantive chapters detail the limits of leading measures in terms of temporal, geographical and categorical capture. To support the conversion of thesis findings into regional policymaking recommendations, a better sense of existing policies was needed.

The resulting comparison across countries and categories sought to be as objective and factual as possible. To this end a policy checklist comprising 207 individual policy questions/features was developed to guide the research.²¹ Questions capture various aspects of FDI (framework/protections, equity and ownership restrictions, approval and screening, land ownership, other (additional restrictions and incentives) and outwards investment), migration (framework/protections, legal entry and stay, border control, integration, exit and emigration) and complementarity policy environments as they apply to migrants and investors. Where possible the questions are designed to elicit factual yes or no answers, with some flexibility to describe unusual or less clear cases.

The questions and their characterisation were developed independently but heavily influenced by leading global FDI and migration policy indicators. For FDI, the OECD FDI Regulatory Restrictiveness Index (OECD 2020) and related Policy Framework for Investment provide significant inspiration on investment environment policy features. The World Bank's Investing Across Borders (World Bank Group 2010) publication is also an important reference.

For migration, three leading sources of inspiration are the DEMIG database (de Haas, Natter, and Vezzoli 2016) — an historical policy change tracker that has limited country coverage but an excellent approach to policy categorisation — the MIPEX database (MIPEX 2020) — an indicator focused on migrant integration post-entry — and the UN's World Population Policies survey (UN Population Division 2019b) — which asks yes or no questions on major population policy features.

Despite including more elements than comparable approaches, the snapshot did not attempt the most comprehensive or detailed approach conceivable but instead focused on core and direct policy features. For example, broad liveability aspects for migrants and the general business environment (taxes, regulations, labour markets, competition policies etc.) for

²¹ The checklist was designed with an intention to survey World Bank country policy experts, but in the absence of securing this support, systematised solo research.

investors are not captured. Nor are broader features of the host country such as human capital, technology and infrastructure levels, natural resource endowments or institutional capacity. Political crises, such as those that have flared up recently in some sample countries, are also excluded from this analysis. The snapshot therefore does not attempt to represent the overall attractiveness to investment or migration of a country but provide detailed information on direct FDI and migration policies and their intersection. An individual country can receive little FDI or migrants despite comparably favourable policies and the reverse can be true of a restrictive environment.

Snapshot compilation reflects a solo scholarly effort that regrettably did not benefit from the input and expertise of country officials, but it therefore is free from potential influence or dependence upon them. The exercise itself has value as a representative summary of information that is accessible online by investors and migrants without having to engage expensive experts or make time-consuming enquires with officials (for many countries finding verifiable information is challenging). Research focuses on authoritative primary and secondary sources, including national legislation and policies, ministry websites, international organisation reports, foreign government (embassy and state department) websites, policy indicator databases (including those aforementioned), private sector (legal and investment advisory) reports and where necessary journal and newspaper articles. A full reference list is included in the supporting paper rather than this thesis.

Converting the findings into a substantive quantitative metric would have required more extensive comparative analysis and subjective judgments within and between policy categories and countries. The minimum expertise and contextual understanding necessary should be clear from the preceding section on quantitative indicators for Australia and Malaysia, with a comparable exercise exponentially harder for 23 countries. This snapshot therefore aims simply to be qualitatively informative yet concise.

The chapter nonetheless includes two colourful tables in which policy subcategories are assessed on a five-point scale. There is limited science to the colour assignment, simply a comparison of policy shortcomings in both an absolute (within categories) and relative (between countries) sense. The supporting paper that in 3-4 pages per country highlights salient policies is more informative to recommendations development (but too lengthy to include/summarise here).

Appendix D

Supplementary for Chapter 3

Table D.1: Summary statistics

	N	Mean	Std. Dev.	Min	Max
Net migration per 1000 population	1099	-0.137	10.558	-70.615	127.251
Net FDI (US\$ billion)	1099	0.275	43.893	-576.653	353.818
Net migration dummy	1099	0.392	0.488	0	1
Net FDI dummy	1042	0.842	0.365	0	1
Binary migration/FDI dummy	1041	0.278	0.448	0	1
FDI importer dummy	916	0.316	0.465	0	1
Migrant importer dummy	414	0.698	0.46	0	1
Human capital cognitive (index)	195	456.604	71.453	174.244	582.184
Human capital schooling (index)	819	2.19	0.696	0.613	3.665
Institutions index (WBG)	534	-0.06	0.99	-2.528	2.195
Institutions index (EFW)	763	5.137	1.04	1.6	8.84
Institutions index (SFI)	639	9.739	6.645	0	25
Resources (composite weight)	1041	5122.899	17953.609	0.084	209822.859
Global cities indicator	446	14.543	41.198	0.001	483.777
Urban population (% of pop in urban areas >1million people)	666	25.16	19.043	1.783	110
Technology (index)	1066	39.3	58.269	0.021	284.985
GDP (USD billion)	1035	292.522	1135.876	0.119	15747.83
Migration stock (% population)	916	8.261	12.507	0.032	88.464
Capital stock (% change y-o-y)	705	21.573	37.124	-18.985	476.25
Border (shared no. of countries)	1093	3.312	2.605	0	16
Language official (shared no. of countries)	1093	35.179	32.468	0	110
Language ethnic (shared no. of countries)	1093	33.589	34.863	0	123
Colony (shared no. of countries)	1093	2.323	6.963	0	81
Common colony (shared no. of countries)	1093	24.824	28.859	0	99
Same country (shared no. of countries)	1093	1.715	2.257	0	8
Real GDP per capita (constant USD)	992	11213.76	16318.49	154.867	106120
Real GDP per capita (growth %)	995	2.181	3.666	-16.897	50.822
Human development index	939	0.635	0.17	0.149	0.944
Historical index of human development	906	0.42	0.183	0.09	0.88

Table D.2: Variable descriptions

Net migration	Net migration per 1000 population (UN)
Net FDI	Net inflows of FDI in billions of current USD (UNCTAD)
Binary migration/FDI dummy	Binary dummy =1 if net importer of both migrants and FDI, =0 otherwise
FDI importer dummy	Binary dummy for subset of FDI importers, =0 if migrant exporter; =1 if migrant importer
Migrant importer dummy	Binary dummy for subset of migrant importers, =0 if FDI exporter; =1 if FDI importer
Human capital (schooling)	Penn World Table Human Capital Index – based on average years of schooling and assumed return on education (Barro-Lee/Cohen-Soto-Leker)
Human capital (cognitive)	Index of science and mathematics scores based on PISA data and PISA-equivalent values fitted from TIMSS data using a methodology similar to Hanushek and Woessmann (2015)
Institutions (WBGI)	Unweighted average of the six World Bank Governance Indicators – voice and accountability, political stability, government effectiveness, rule of law, regulation quality and control of corruption
Institutions (EFW)	Unweighted average of three Economic Freedom of the World sub-indexes – size of government (inverted), regulation, and legal system & property rights (Fraser Institute)
Institutions (SFI)	Center for Systemic Peace's state fragility index – comprising measures of security, economic political and social effectiveness, together with indicators of armed conflict, regime type and oil availability
Resources	Weighted (by volume share) production of oil, gas and coal and metals (aluminium, bauxite, copper, iron ore, lead, manganese, nickel, silver, tin, tungsten, zinc and gold; BP Statistical Review of World Energy) and arable land (FAOSTAT)
Urban population	Percentage of the population living in cities with a population of over 1 million (WB)
Global cities	Weighted index of international tourist arrivals and air transport freight (WB)
Technology	Technology indicator comprised of the number of fixed telephone lines, mobile phones and internet usage per 100 population (WB)
Migration stock	Stock of migrants as a percentage of total population (UN)
Capital stock	Annual change in the total government and private capital stock (IMF)
GDP	GDP in billions of constant 2010 USD (WB)
Border	Number of countries with shared borders (CEPII)
Language official	Number of countries sharing official language (CEPII)
Language ethnic	Number of countries sharing ethnic language (CEPII)
Colony	Number of countries with colonial history (CEPII)
Common colony	Number of countries with shared colonial history (CEPII)
Same country	Number of countries that were at one stage the same country (CEPII)

Table D.3: Estimation sample countries

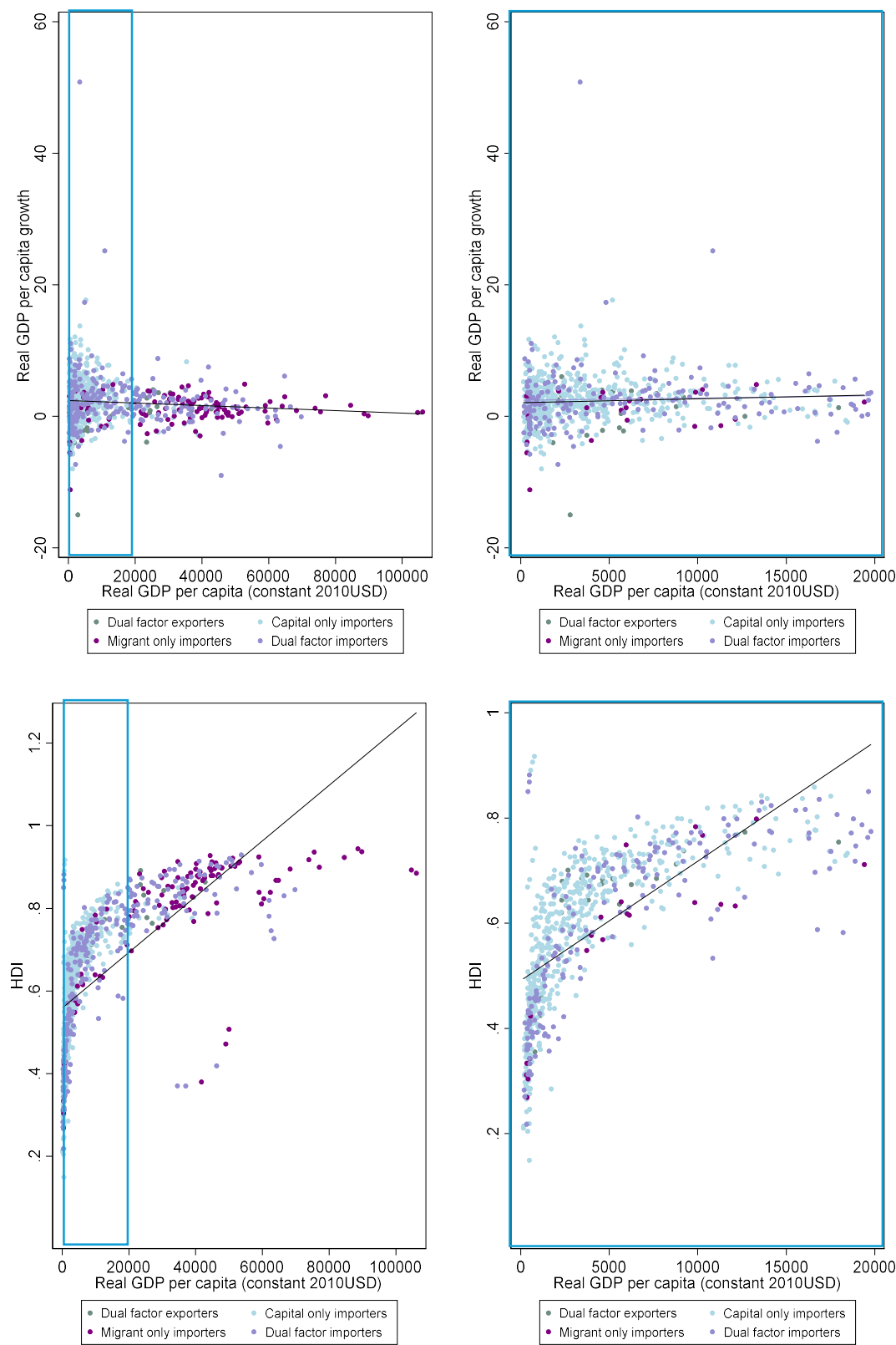
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Argentina	Albania	Angola	Angola	Albania	Argentina	Albania	Angola	Argentina	Albania	Angola	Angola	Albania	Argentina
2	Armenia	Algeria	Argentina	Argentina	Argentina	Armenia	Algeria	Argentina	Armenia	Angola	Argentina	Argentina	Argentina	Armenia
3	Azerbaijan	Angola	Armenia	Armenia	Armenia	Australia	Argentina	Armenia	Australia	Argentina	Armenia	Armenia	Armenia	Bolivia
4	Brazil	Argentina	Bangladesh	Bolivia	Australia	Azerbaijan	Armenia	Australia	Austria	Armenia	Bangladesh	Bangladesh	Bolivia	Brazil
5	Bulgaria	Armenia	Bolivia	Brazil	Azerbaijan	Belgium	Australia	Bangladesh	Bangladesh	Bangladesh	Bolivia	Bolivia	Botswana	Bulgaria
6	Chile	Bahrain	Brazil	Bulgaria	Bahrain	Brazil	Belgium	Belgium	Benin	Brazil	Brazil	Brazil	Brazil	Cameroon
7	Colombia	Bangladesh	Bulgaria	Cameroon	Belgium	Bulgaria	Bangladesh	Bolivia	Bolivia	Bulgaria	Bulgaria	Bulgaria	Bulgaria	Chile
8	Czechia	Benin	Burkina Faso	Chile	Bosnia and Herz	Canada	Belgium	Brazil	Brazil	Botswana	Burkina Faso	Burkina Faso	Cameroon	China
9	Egypt	Bolivia	Cambodia	China	Botswana	Chile	Benin	Bulgaria	Bulgaria	Brazil	Cambodia	Cambodia	Chile	Colombia
10	El Salvador	Botswana	Cameroon	Colombia	Brazil	Hong Kong	Bolivia	Burkina Faso	Burkina Faso	Bulgaria	Cameroon	Cameroon	Chile	Costa Rica
11	Georgia	Brazil	Chile	Costa Rica	Bulgaria	Colombia	Botswana	Cambodia	Cambodia	Burkina Faso	Chile	Chile	Colombia	Czechia
12	Ghana	Bulgaria	China	Czechia	Canada	Czechia	Brazil	Cameroon	Cameroon	Cambodia	China	China	Costa Rica	Dominican Rep.
13	Hungary	Burkina Faso	Colombia	Dominican Rep.	Chile	Denmark	Bulgaria	Canada	Canada	Cameroon	Colombia	Colombia	Croatia	Ecuador
14	Indonesia	Cambodia	Costa Rica	Ecuador	Hong Kong	Egypt	Burkina Faso	Chile	Chile	Chile	Costa Rica	Costa Rica	Czechia	Egypt
15	Iran	Cameroon	Cote d'Ivoire	Egypt	Colombia	El Salvador	Cambodia	China	China	China	Cote d'Ivoire	Cote d'Ivoire	Ecuador	El Salvador
16	Jordan	Chile	Czechia	El Salvador	Croatia	Finland	Cameroon	Colombia	Colombia	Colombia	Czechia	Czechia	Egypt	Guatemala
17	Lebanon	China	DR Congo	Guatemala	Cyprus	Georgia	Canada	Costa Rica	Costa Rica	Costa Rica	DR Congo	DR Congo	El Salvador	Honduras
18	Malaysia	Colombia	Dominican Rep.	Honduras	Czechia	Germany	Chile	Cote d'Ivoire	Cote d'Ivoire	Cote d'Ivoire	Dominican Rep.	Dominican Rep.	Estonia	Hungary
19	Mexico	Costa Rica	Ecuador	Hungary	Denmark	Ghana	China	Czechia	Croatia	Ecuador	Ecuador	Ecuador	Fiji	India
20	Morocco	Cote d'Ivoire	Egypt	India	Egypt	Greece	Colombia	DR Congo	DR Congo	Czechia	Egypt	Egypt	Gabon	Indonesia
21	Peru	Croatia	El Salvador	Indonesia	El Salvador	Hungary	Costa Rica	Denmark	Denmark	DR Congo	El Salvador	El Salvador	Guatemala	Iran
22	Philippines	Czechia	Ethiopia	Iran	Estonia	Indonesia	Cote d'Ivoire	Dominican Rep.	Dominican Rep.	Ecuador	Ethiopia	Ethiopia	Honduras	Iraq
23	Poland	DR Congo	Ghana	Iraq	Finland	Iran	Croatia	Ecuador	Ecuador	Egypt	Ghana	Ghana	Hungary	Jordan
24	Romania	Ecuador	Guatemala	Jordan	Georgia	Ireland	Cyprus	Egypt	Egypt	El Salvador	Guatemala	Greece	India	Kazakhstan
25	Russia	Egypt	Honduras	Kazakhstan	Germany	Israel	Czechia	El Salvador	El Salvador	Estonia	Honduras	Guatemala	Indonesia	Malaysia
26	Saudi Arabia	El Salvador	Hungary	Ghana	Italy	DR Congo	Ethiopia	Ethiopia	Ethiopia	Ethiopia	Honduras	Honduras	Iran	Mexico
27	South Africa	Estonia	India	Mexico	Greece	Jordan	Denmark	Finland	Finland	Fiji	India	Hungary	Iraq	Mongolia
28	Thailand	Fiji	Indonesia	Mongolia	Hungary	Lebanon	Ecuador	Germany	Germany	Gabon	Indonesia	India	Jamaica	Morocco
29	Tunisia	Gabon	Iran	Morocco	Iceland	Malaysia	Egypt	Ghana	Ghana	Ghana	Iran	Indonesia	Jordan	Panama
30	Turkey	Ghana	Iraq	Panama	Indonesia	Mexico	El Salvador	Greece	Greece	Guatemala	Iraq	Iran	Kazakhstan	Paraguay
31	Ukraine	Guatemala	Jordan	Paraguay	Iran	Morocco	Estonia	Guatemala	Guatemala	Honduras	Jordan	Iraq	Lithuania	Peru
32	Uruguay	Honduras	Kazakhstan	Peru	Ireland	New Zealand	Fiji	Honduras	Honduras	Hungary	Kazakhstan	Jordan	Malaysia	Philippines
33		Hungary	Kenya	Philippines	Israel	Peru	Finland	Hungary	Hungary	India	Kenya	Kazakhstan	Mauritius	Poland
34		India	Madagascar	Poland	Italy	Philippines	Gabon	India	India	Indonesia	Madagascar	Kenya	Mexico	Romania
35		Indonesia	Malaysia	Romania	Jordan	Poland	Germany	Indonesia	Indonesia	Iran	Malaysia	Madagascar	Mongolia	Russia
36		Iran	Mali	Russia	Kyrgyzstan	Portugal	Ghana	Iran	Iran	Iraq	Mali	Malaysia	Morocco	Saudi Arabia
37		Iraq	Mexico	Saudi Arabia	Lebanon	S. Korea	Greece	Iraq	Ireland	Jamaica	Mexico	Mali	Namibia	South Africa
38		Jamaica	Mongolia	South Africa	Lithuania	Romania	Guatemala	Ireland	Israel	Jordan	Mongolia	Mexico	Panama	Thailand
39		Jordan	Morocco	Thailand	Luxembourg	Russia	Honduras	Israel	Italy	Kazakhstan	Morocco	Mongolia	Paraguay	Tunisia
40		Kazakhstan	Mozambique	Tunisia	Malaysia	Saudi Arabia	Hungary	Italy	Japan	Kenya	Mozambique	Morocco	Peru	Turkey
41		Kenya	Nepal	Turkey	Mexico	Singapore	India	Jordan	Jordan	Kyrgyzstan	Nepal	Mozambique	Philippines	Ukraine
42		Kyrgyzstan	Niger	Ukraine	Morocco	South Africa	Indonesia	Kazakhstan	Kazakhstan	Laos	Niger	Nepal	Poland	Uruguay
43		Laos	Nigeria	Uruguay	New Zealand	Spain	Iran	Kenya	Kenya	Lithuania	Nigeria	Niger	Moldova	Venezuela
44		Latvia	Pakistan	Venezuela	Oman	Thailand	Ireland	Kuwait	Kuwait	Madagascar	Pakistan	Nigeria	Romania	
45		Lithuania	Panama	Peru	Tunisia	Israel	Madagascar	Madagascar	Madagascar	Malawi	Panama	Pakistan	Russia	
46		Madagascar	Paraguay		Philippines	Turkey	Italy	Malaysia	Malaysia	Malaysia	Paraguay	Panama	Saudi Arabia	
47		Malawi	Peru		Poland	Ukraine	Jamaica	Mali	Mali	Mali	Peru	Paraguay	Slovakia	
48		Malaysia	Philippines		Portugal	UK	Jordan	Mexico	Mexico	Mauritania	Philippines	Peru	South Africa	
49		Mali	Poland		S. Korea	Uruguay	Kazakhstan	Mongolia	Mongolia	Mauritius	Poland	Philippines	Sri Lanka	
50		Mauritania	Romania		Moldova	Kenya	Morocco	Morocco	Mexico	Romania	Poland	Poland	Swaziland	
51		Mauritius	Russia		Romania	Kuwait	Mozambique	Mozambique	Mongolia	S. Korea	Thailand	Thailand		
52		Mexico	Rwanda		Russia		Kyrgyzstan	Nepal	Nepal	Morocco	Rwanda	Romania	Trin & Tob	

53		Mongolia	Saudi Arabia		Saudi Arabia		Laos	New Zealand	New Zealand	Mozambique	Saudi Arabia	Russia	Tunisia	
54		Morocco	Senegal		Singapore		Latvia	Niger	Niger	Namibia	Senegal	Rwanda	Turkey	
55		Mozambique	Sierra Leone		Slovakia		Lithuania	Nigeria	Nigeria	Nepal	Sierra Leone	Saudi Arabia	Ukraine	
56		Namibia	South Africa		South Africa		Luxembourg	Pakistan	Pakistan	Niger	South Africa	Senegal	Uruguay	
57		Nepal	Thailand		Spain		Madagascar	Panama	Panama	Nigeria	Thailand	Sierra Leone	Venezuela	
58		Niger	Tunisia		Thailand		Malawi	Paraguay	Paraguay	Pakistan	Tunisia	South Africa		
59		Nigeria	Turkey		Tunisia		Malaysia	Peru	Peru	Panama	Turkey	Thailand		
60		Pakistan	Uganda		Turkey		Mali	Philippines	Philippines	Paraguay	Uganda	Tunisia		
61		Panama	Ukraine		Ukraine		Mauritania	Poland	Poland	Peru	Ukraine	Turkey		
62		Paraguay	Tanzania		UK		Mauritius	Portugal	Portugal	Philippines	Tanzania	Uganda		
63		Peru	Uruguay		Uruguay		Mexico	S. Korea	S. Korea	Poland	Uruguay	Ukraine		
64		Philippines	Venezuela				Mongolia	Romania	Romania	Moldova	Venezuela	Tanzania		
65		Poland	Viet Nam				Morocco	Russia	Russia	Romania	Viet Nam	Uruguay		
66		Moldova	Yemen				Mozambique	Rwanda	Rwanda	Russia	Yemen	Venezuela		
67		Romania	Zambia				Namibia	Saudi Arabia	Saudi Arabia	Rwanda	Zambia	Viet Nam		
68		Russia	Zimbabwe				Nepal	Senegal	Senegal	Saudi Arabia	Zimbabwe	Yemen		
69		Rwanda					New Zealand	Sierra Leone	Sierra Leone	Senegal		Zambia		
70		Saudi Arabia					Niger	Singapore	Singapore	Sierra Leone		Zimbabwe		
71		Senegal					Nigeria	South Africa	South Africa	Slovakia				
72		Serbia					Pakistan	Spain	Spain	South Africa				
73		Sierra Leone					Panama	Thailand	Sweden	Sri Lanka				
74		Slovakia					Paraguay	Tunisia	Thailand	Swaziland				
75		South Africa					Peru	Turkey	Tunisia	Tajikistan				
76		Sri Lanka					Philippines	Uganda	Turkey	Thailand				
77		Swaziland					Poland	Ukraine	Uganda	Togo				
78		Syria					Portugal	UK	Ukraine	Trin & Tob				
79		Tajikistan					S. Korea	Tanzania	UK	Tunisia				
80		Thailand					Moldova	Uruguay	Tanzania	Turkey				
81		Togo					Romania	Venezuela	USA	Uganda				
82		Tunisia					Russia	Viet Nam	Uruguay	Ukraine				
83		Turkey					Rwanda	Yemen	Venezuela	Tanzania				
84		Uganda					Saudi Arabia	Zambia	Viet Nam	Uruguay				
85		Ukraine					Senegal	Zimbabwe	Yemen	Venezuela				
86		Tanzania					Serbia		Zambia	Viet Nam				
87		Uruguay					Sierra Leone		Zimbabwe	Yemen				
88		Venezuela					Singapore			Zambia				
89		Viet Nam					Slovakia			Zimbabwe				
90		Yemen					Slovenia							
91		Zimbabwe					South Africa							
92							Spain							
93							Sri Lanka							
94							Swaziland							
95							Syria							
96							Tajikistan							
97							Thailand							
98							Togo							
99							Tunisia							
100							Turkey							
101							Uganda							
102							Ukraine							
103							UAE							
104							UK							
105							Tanzania	108. Viet Nam						
106							Uruguay	109. Yemen						
107							Venezuela	110. Zimbabwe						

	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
1	Australia	Australia	Australia	Argentina	Argentina	Angola	Angola	Australia	Australia	Albania	Angola
2	Austria	Austria	Austria	Australia	Australia	Argentina	Argentina	Austria	Austria	Angola	Argentina
3	Bahrain	Bahrain	Belgium	Austria	Austria	Australia	Australia	Bahrain	Belgium	Argentina	Armenia
4	Belgium	Belgium	Canada	Bahrain	Belgium	Austria	Austria	Belgium	Canada	Armenia	Australia
5	Canada	Canada	Czechia	Belgium	Canada	Bahrain	Belgium	Canada	Hong Kong	Australia	Austria
6	Hong Kong	Hong Kong	Denmark	Botswana	Chile	Belgium	Canada	Hong Kong	Czechia	Austria	Bangladesh
7	Cyprus	Cyprus	Finland	Canada	Hong Kong	Belize	Chile	Cyprus	Denmark	Bahrain	Belgium
8	Czechia	Czechia	France	Chile	Czechia	Benin	Costa Rica	Czechia	Finland	Bangladesh	Bolivia
9	Denmark	Denmark	Germany	Hong Kong	Denmark	Botswana	Cote d'Ivoire	Denmark	France	Belgium	Brazil
10	Estonia	Estonia	Greece	Cyprus	Finland	Canada	Czechia	Finland	Germany	Benin	Bulgaria
11	Finland	Finland	Hungary	Czechia	France	Chile	DR Congo	France	Greece	Bolivia	Burkina Faso
12	France	France	Ireland	Denmark	Germany	Hong Kong	Denmark	Germany	Hungary	Botswana	Cambodia
13	Germany	Germany	Israel	Finland	Ghana	Costa Rica	Finland	Greece	Ireland	Brazil	Cameroon
14	Greece	Greece	Italy	France	Greece	Cote d'Ivoire	France	Hungary	Israel	Bulgaria	Canada
15	Hungary	Hungary	Japan	Germany	Hungary	Cyprus	Germany	Iceland	Italy	Burkina Faso	Chile
16	Iceland	Iceland	Kuwait	Ghana	Ireland	Czechia	Ghana	Ireland	Japan	Cambodia	China
17	Ireland	Ireland	Netherlands	Greece	Israel	DR Congo	Greece	Israel	Kuwait	Cameroon	Colombia
18	Israel	Israel	New Zealand	Hungary	Italy	Denmark	Hungary	Italy	Netherlands	Canada	Costa Rica
19	Italy	Italy	Portugal	Iceland	Japan	Finland	Iran	Japan	New Zealand	Chile	Cote d'Ivoire
20	Japan	Japan	S. Korea	Ireland	Jordan	France	Ireland	Kuwait	Portugal	China	Czechia
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23	Netherlands	Netherlands	Spain	Japan	Malaysia	Ghana	Japan	New Zealand	Singapore	Cote d'Ivoire	Dominican Rep.
24	New Zealand	New Zealand	Sweden	Jordan	Netherlands	Greece	Jordan	Norway	Spain	Croatia	Ecuador
25	Norway	Norway	Switzerland	Kuwait	New Zealand	Hungary	Kazakhstan	Oman	Sweden	Cyprus	Egypt
26	Oman	Portugal	UK	Lebanon	Portugal	Iceland	Kenya	Portugal	Switzerland	Czechia	El Salvador
27	Portugal	Qatar	USA	Luxembourg	S. Korea	Ireland	Kuwait	Qatar	UK	DR Congo	Ethiopia
28	Qatar	S. Korea		Malaysia	Russia	Israel	Malaysia	S. Korea	USA	Denmark	Finland
29	S. Korea	Saudi Arabia		Netherlands	Saudi Arabia	Italy	Netherlands	Singapore		Ecuador	France
30	Singapore	Singapore		New Zealand	Singapore	Japan	New Zealand	Slovakia		Egypt	Germany
31	Slovakia	Slovakia		Norway	South Africa	Jordan	Niger	Spain		El Salvador	Ghana
32	Spain	Spain		Oman	Spain	Kazakhstan	Panama	Sweden		Estonia	Greece
33	Sweden	Sweden		Portugal	Sweden	Kenya	Portugal	Switzerland		Ethiopia	Guatemala
34	Switzerland	Switzerland		Qatar	Switzerland	Kuwait	S. Korea	UK		Fiji	Honduras
35	UK	Trin & Tob		S. Korea	Thailand	Luxembourg	Russia	USA		Finland	Hungary
36	USA	UK		Russia	Turkey	Malaysia	Rwanda			France	India
37		USA		Singapore	UK	Mountania	Saudi Arabia			Gabon	Indonesia
38				Slovakia	USA	Netherlands	Sierra Leone			Germany	Iran
39				South Africa		New Zealand	Singapore			Ghana	Iraq
40				Spain		Norway	South Africa			Greece	Ireland
41				Sweden		Panama	Spain			Guatemala	Israel
42				Switzerland		Portugal	Sweden			Honduras	Italy
43				Thailand		Qatar	Switzerland			Hungary	Japan
44				Turkey		S. Korea	Thailand			India	Jordan
45				UK		Russia	Turkey			Indonesia	Kazakhstan
46				USA		Saudi Arabia	Ukraine			Iran	Kenya
47						Sierra Leone	UK			Iraq	Kuwait
48						Singapore	USA			Ireland	Madagascar
49						Slovakia	Zambia			Israel	Malaysia
50						South Africa				Italy	Mali
51						Spain				Jamaica	Mexico
52						Sweden				Japan	Mongolia
53						Switzerland				Jordan	Morocco
54						Thailand				Kazakhstan	Mozambique
55						Turkey				Kenya	Nepal
56						Ukraine				Kuwait	Netherlands
57						UK				Kyrgyzstan	New Zealand
58						USA				Laos	Niger

59										Lithuania	Nigeria
60										Luxembourg	Pakistan
61										Madagascar	Panama
62										Malawi	Paraguay
63										Malaysia	Peru
64										Mali	Philippines
65										Mauritania	Poland
66										Mauritius	Portugal
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105										Trin & Tob	
106										Tunisia	
107										Turkey	
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109										Ukraine	
110										UK	
111										Tanzania	
112										USA	
113										Uruguay	
114										Venezuela	
115										Viet Nam	
116										Yemen	
117										Zambia ←	118 - Zimbabwe

Figure D.1: Real GDP per capita and welfare by comparator group



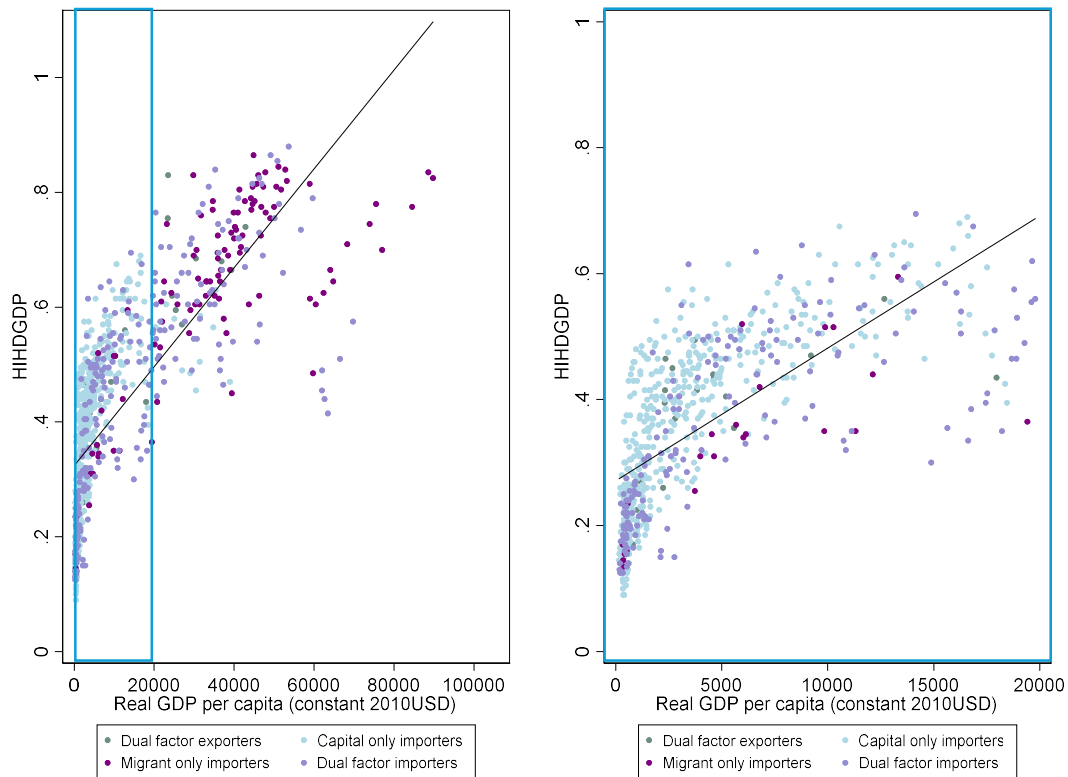
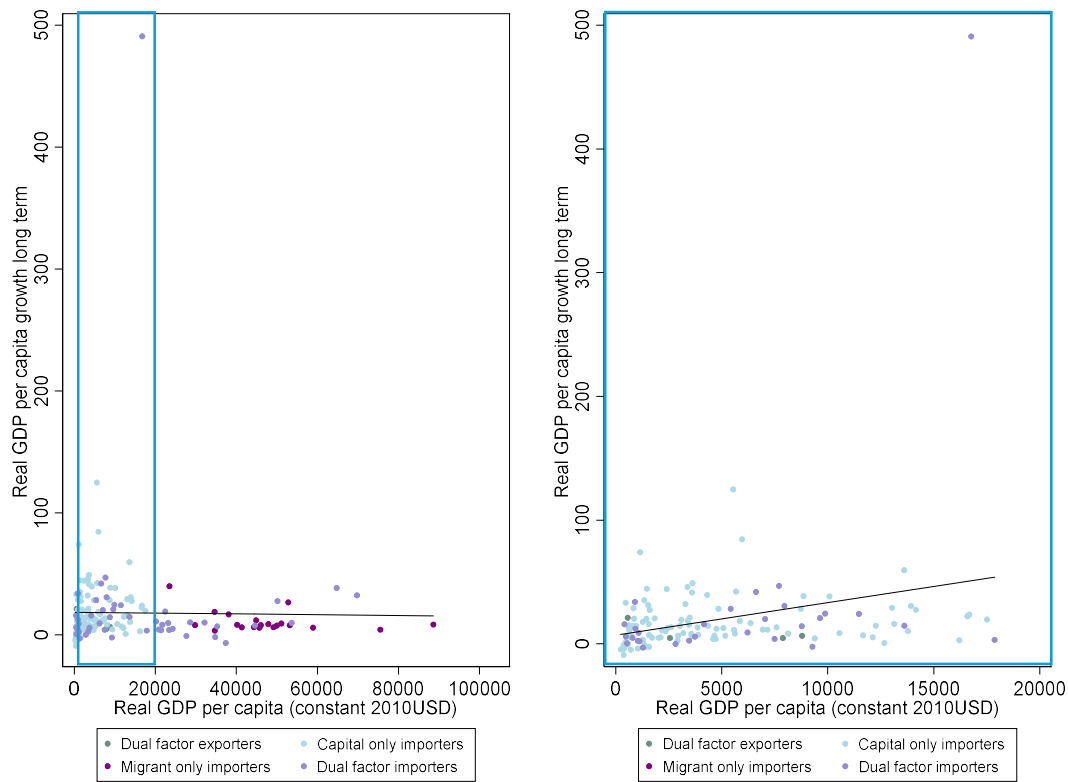


Figure D.2: Real GDP per capita and welfare by comparator group – long-term



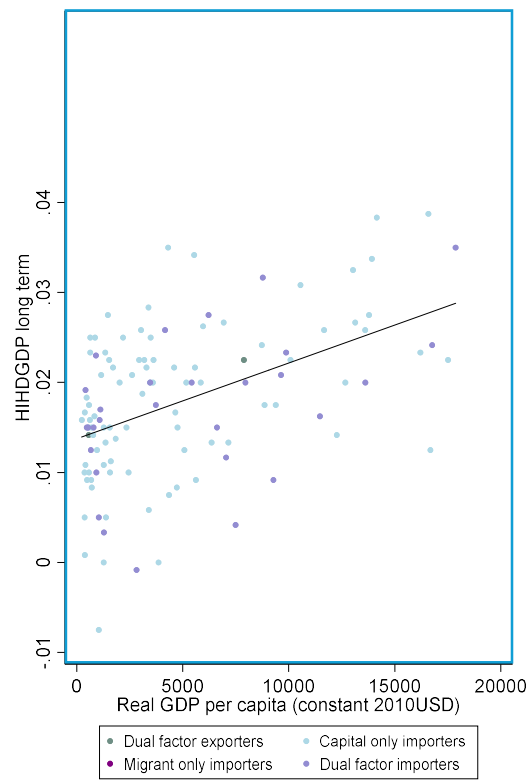
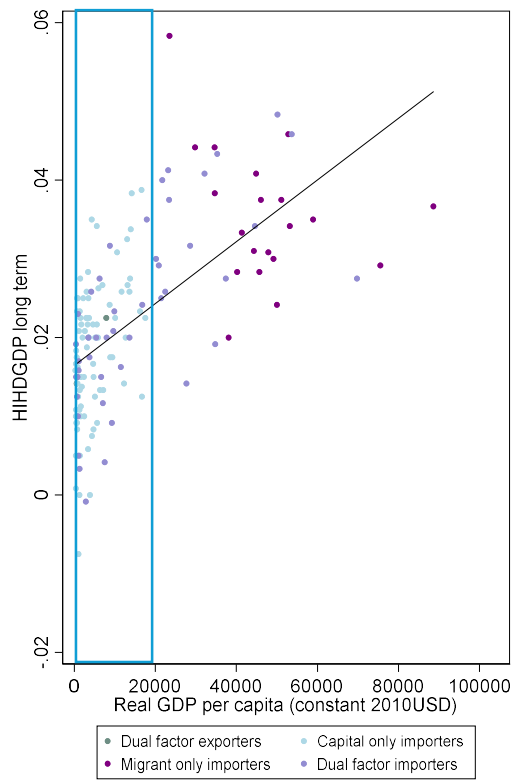
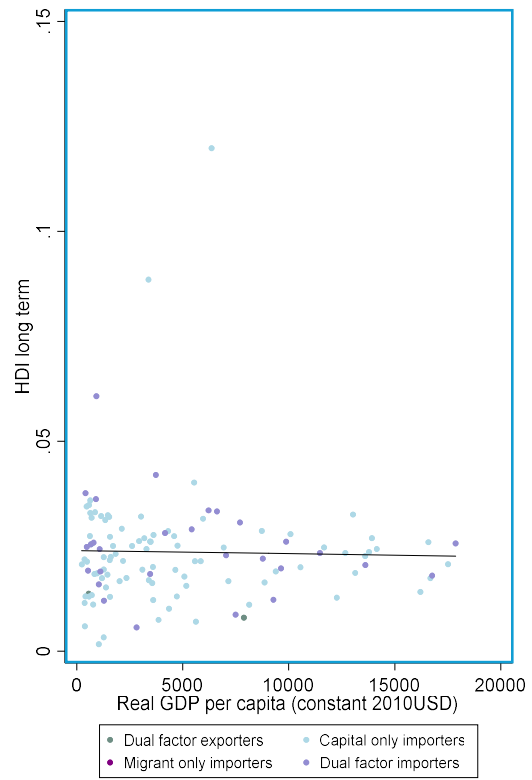
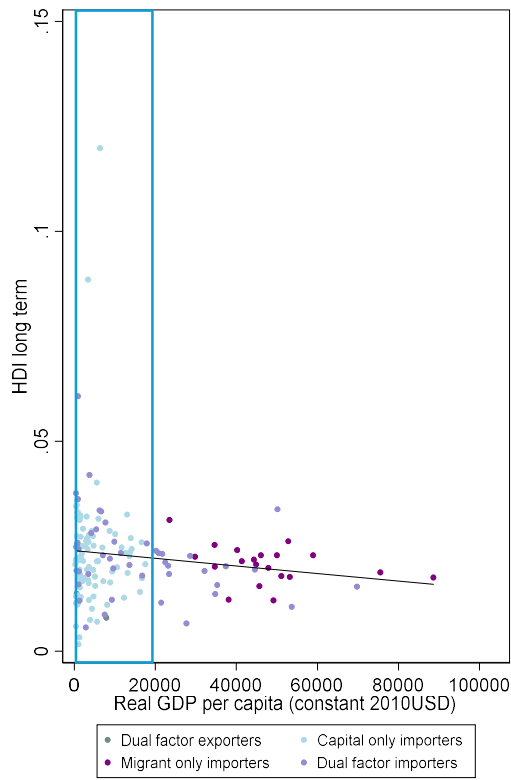


Table D.4: Welfare measure significance tests — dual factor importers vs listed groups

Comparator group →↓	Welfare measure↓	All countries	Low income	Middle income	High income	All incomes long-term
All countries	RGPPC growth	0.192 (3.434)	1.208* (4.609)	0.038 (2.898)	0.366 (2.107)	6.944 (40.099)
	HDI	0.046**** (0.17)	-0.024 (0.125)	0.026** (0.097)	-0.013 (0.088)	0.000 (0.012)
	HIHDGDP	0.037*** (0.183)	-0.034** (0.092)	0.011 (0.102)	-0.04** (0.114)	0.002 (0.011)
FDI importers	RGPPC growth	-0.1 (3.538)	1.038 (4.548)	-0.062 (2.943)	0.369 (2.571)	5.771 (42.996)
	HDI	0.085**** (0.161)	-0.03 (0.125)	0.025** (0.097)	0.026 (0.085)	-0.001 (0.013)
	HIHDGDP	0.086**** (0.165)	-0.037*** (0.092)	0.006 (0.102)	0.086** (0.115)	0.005*** (0.01)
Migrant importers	RGPPC growth	1.191*** (3.94)	6.046* (7.527)	0.556 (3.277)	0.379 (2.03)	11.626 (59.214)
	HDI	-0.118**** (0.178)	0.119** (0.122)	0.018 (0.103)	-0.019 (0.092)	0.002 (0.008)
	HIHDGDP	-0.17**** (0.204)	0.056** (0.065)	0.051 (0.114)	-0.061*** (0.114)	-0.012**** (0.012)

Notes: Figures represent the estimated mean difference between dual factor importers and listed comparator groups, with the sample standard deviation in parentheses. *Italics* where one group tested had <15 observations.

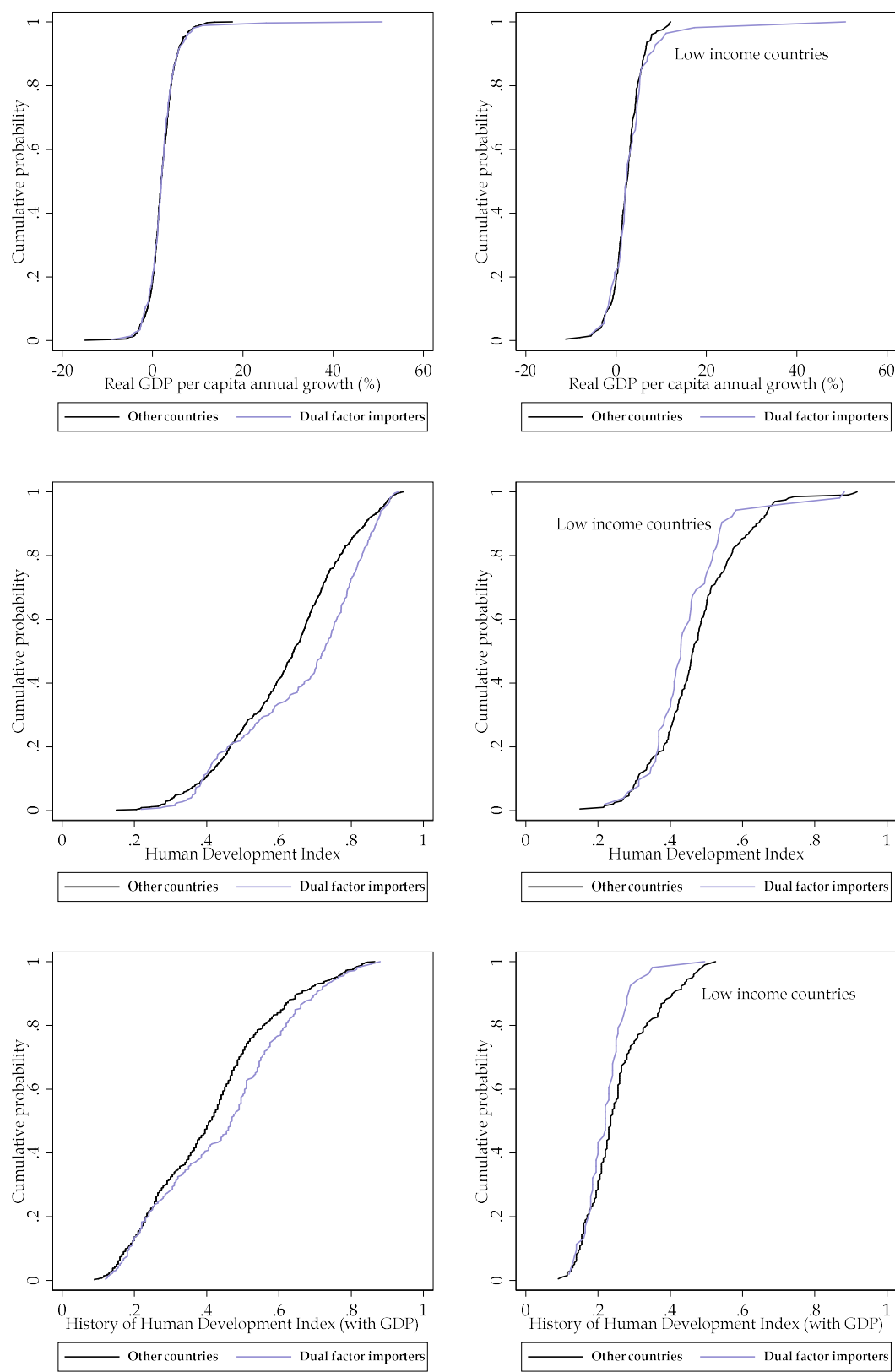
Statistical significance levels: p<0.1, p<0.05, p<0.01, p<0.001

Table D.5: Welfare measure significance tests — dual factor importers vs listed groups controlling for GDP per capita

Comparator group →↓	Welfare measure↓	All countries	Low income	Middle income	High income	All incomes long-term
All countries	RGPPC growth	0.299 (3.434)	0.869 (4.609)	-0.033 (2.898)	0.315 (2.107)	6.732 (40.099)
	HDI	0.008 (0.17)	-0.038** (0.125)	-0.017* (0.097)	-0.006 (0.088)	0.000 (0.012)
	HIHDGDP	-0.011 (0.183)	-0.044**** (0.092)	-0.025** (0.102)	-0.031* (0.114)	0.000 (0.011)
FDI importers	RGPPC growth	0.148 (3.538)	0.743 (4.548)	-0.203 (2.943)	0.548 (2.571)	3.134 (42.996)
	HDI	-0.017 (0.161)	-0.042** (0.125)	-0.019* (0.097)	0.018 (0.085)	0.001 (0.013)
	HIHDGDP	-0.024** (0.165)	-0.047**** (0.092)	-0.0318** (0.102)	0.0738** (0.115)	-0.001 (0.01)
Migrant importers	RGPPC growth	0.928** (3.94)	5.505** (7.527)	0.587 (3.277)	0.291 (2.03)	11.95 (59.214)
	HDI	0.008 (0.178)	0.106*** (0.122)	0.015 (0.103)	-0.008 (0.092)	-0.003 (0.008)
	HIHDGDP	-0.019 (0.204)	0.047*** (0.065)	0.043* (0.114)	-0.046** (0.114)	-0.003 (0.012)

Notes: As per Table D.4.

Figure D.3: Welfare measure cumulative distributions: dual factor importers vs all other



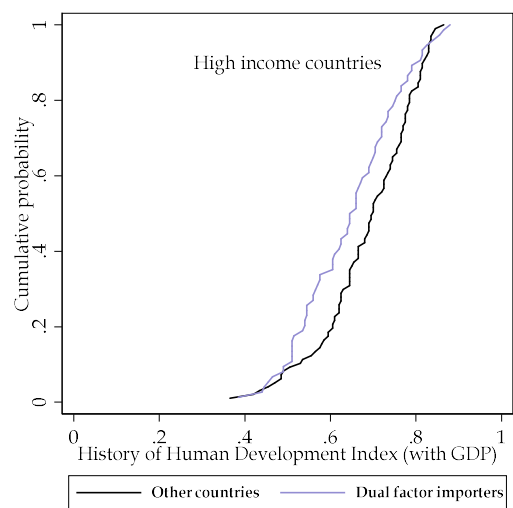
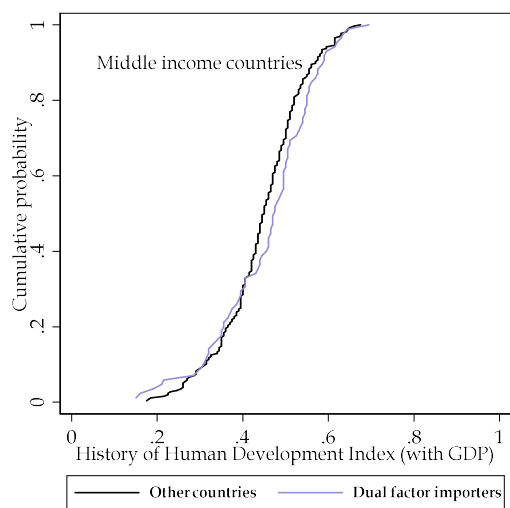
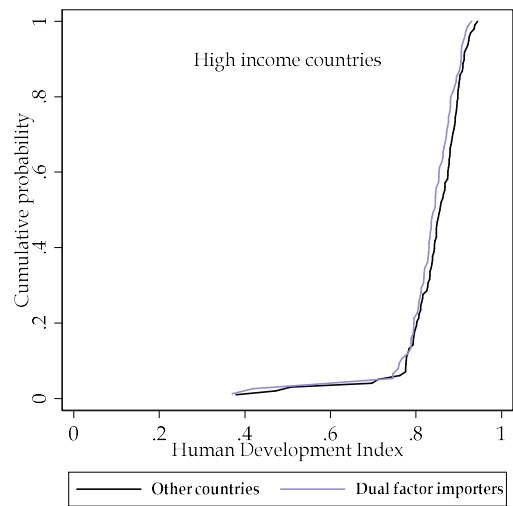
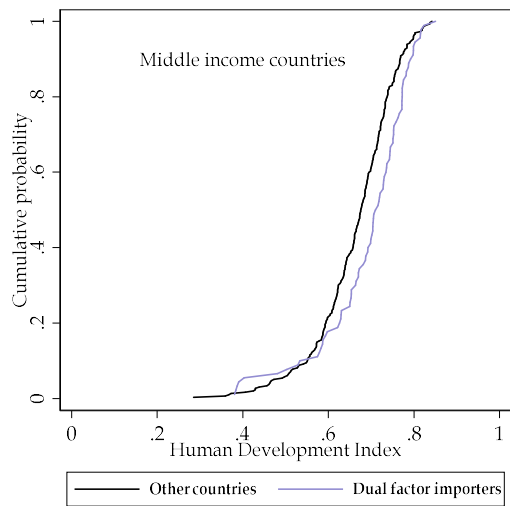
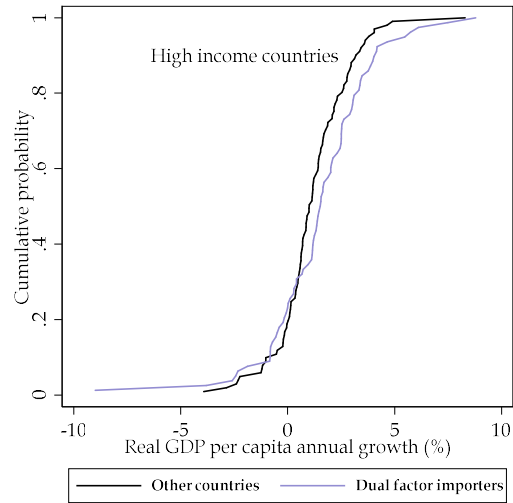
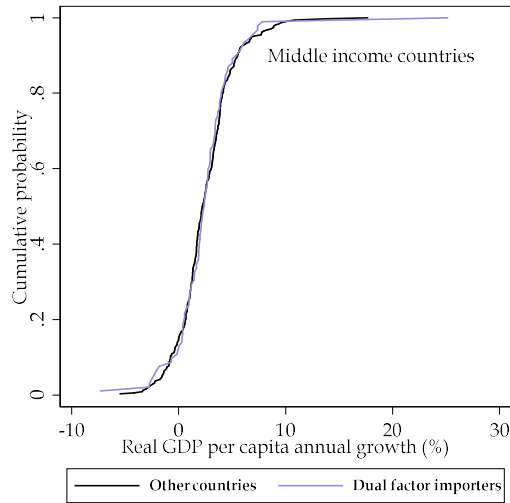
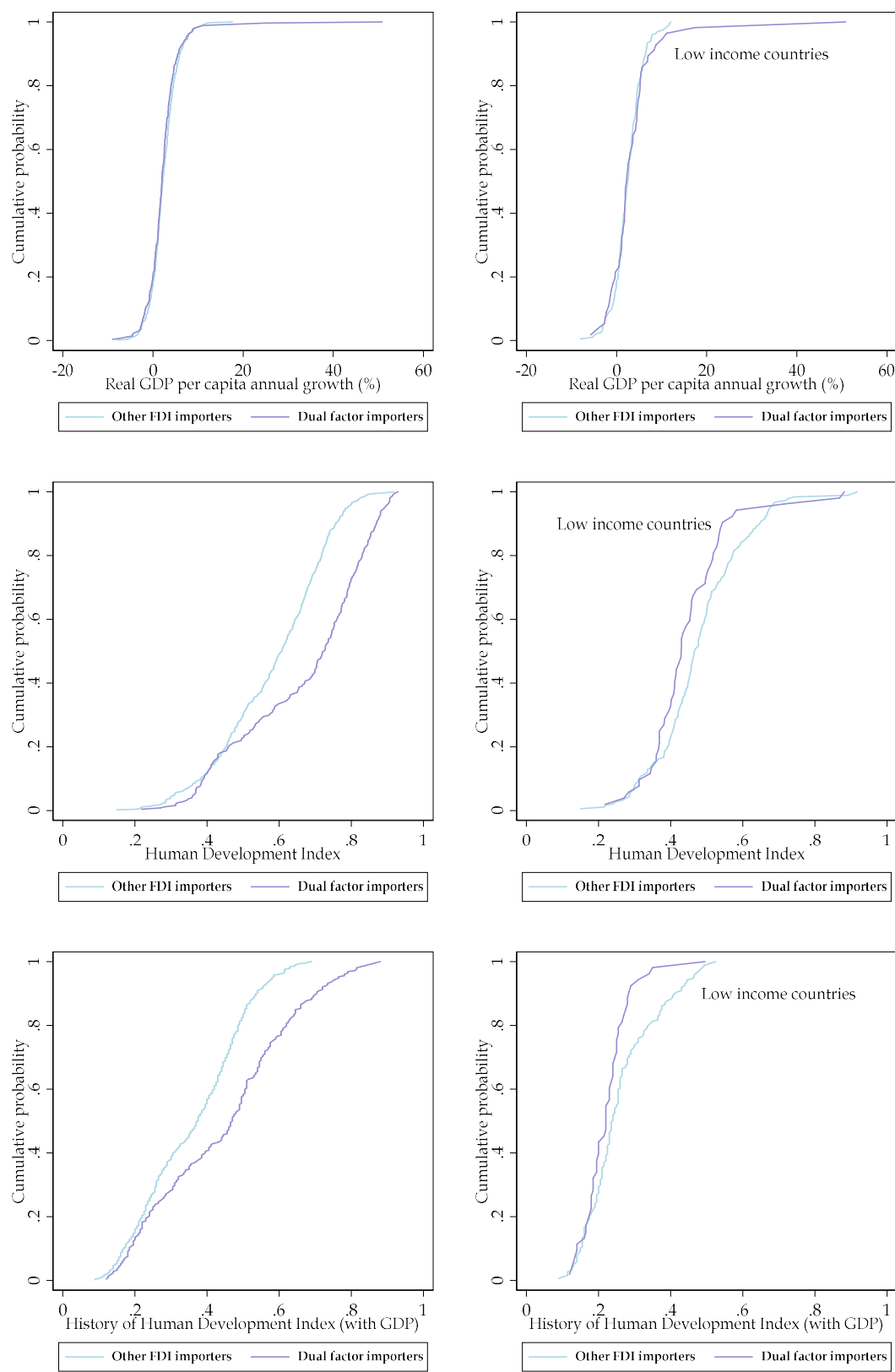


Figure D.4: Welfare measure cumulative distributions: dual factor vs capital importers



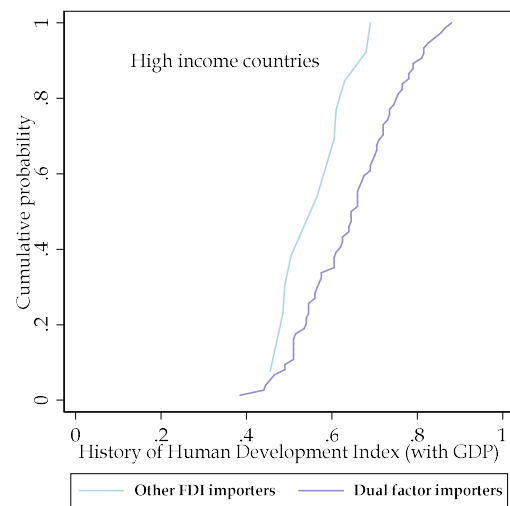
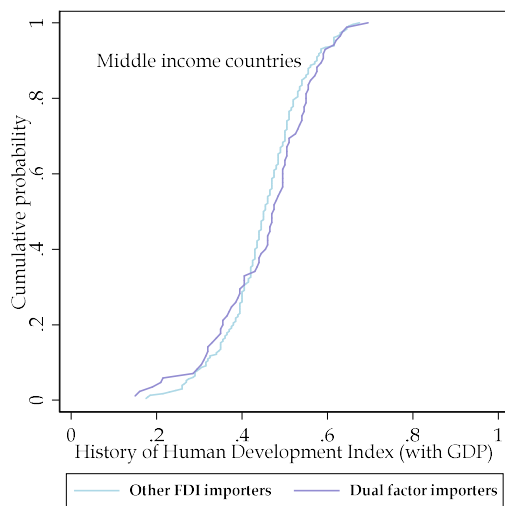
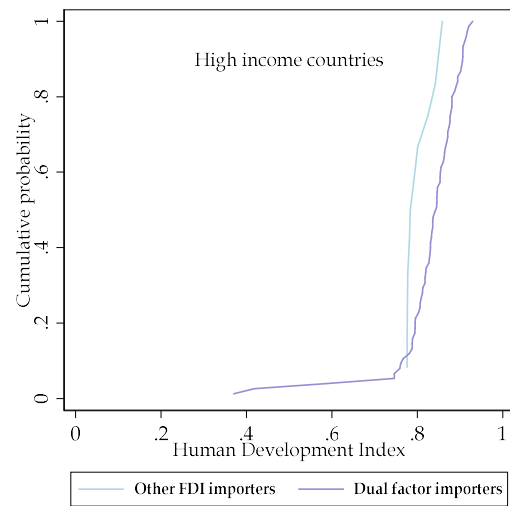
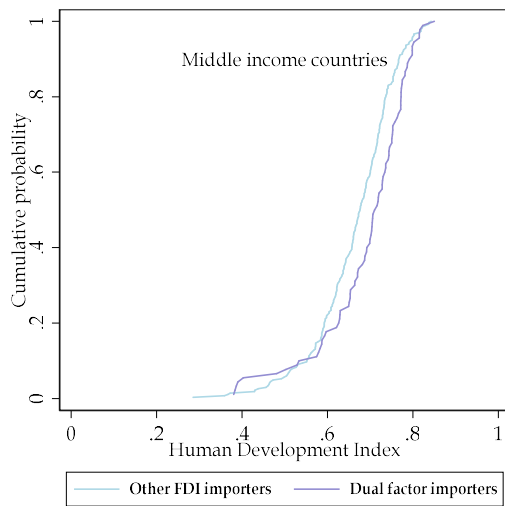
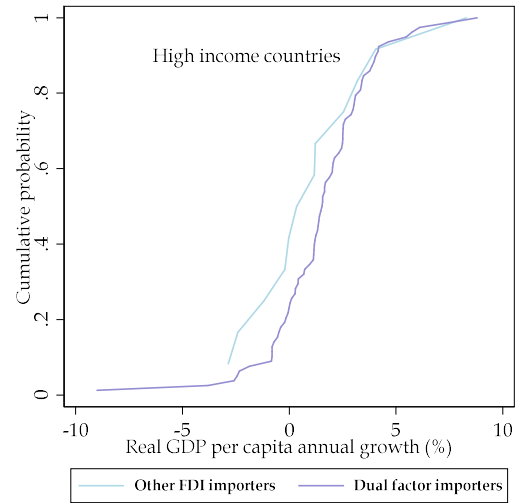
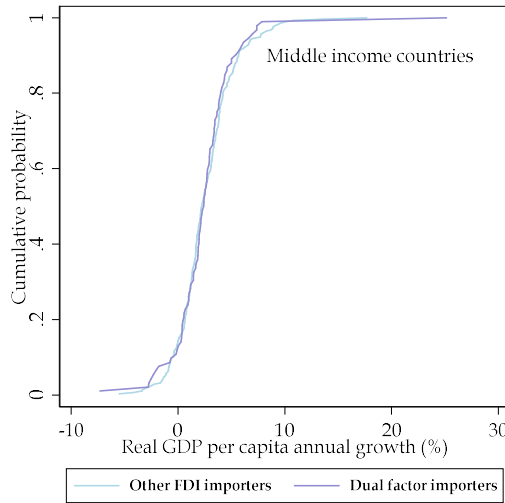
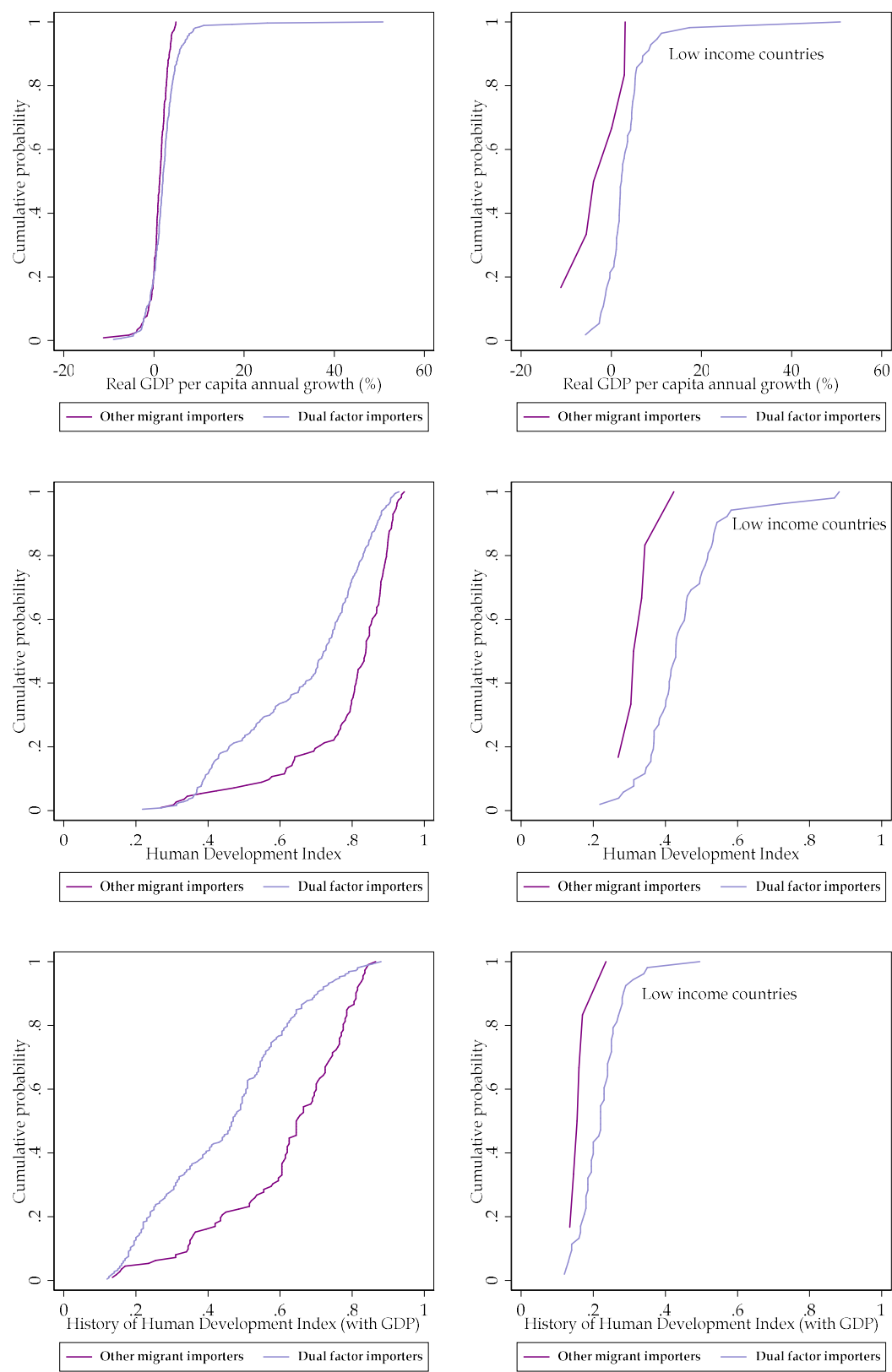


Figure D.5: Welfare measure cumulative distributions: dual factor vs migrant importers



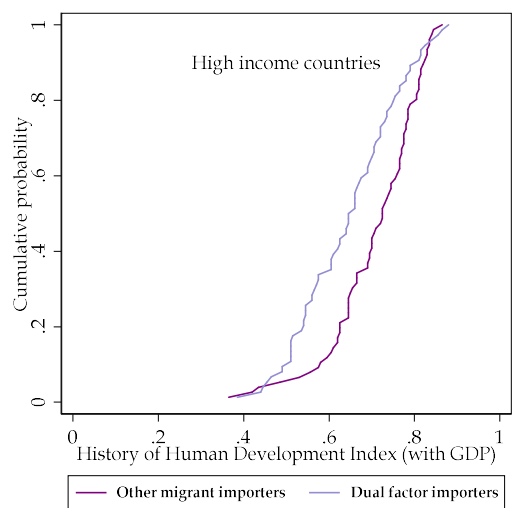
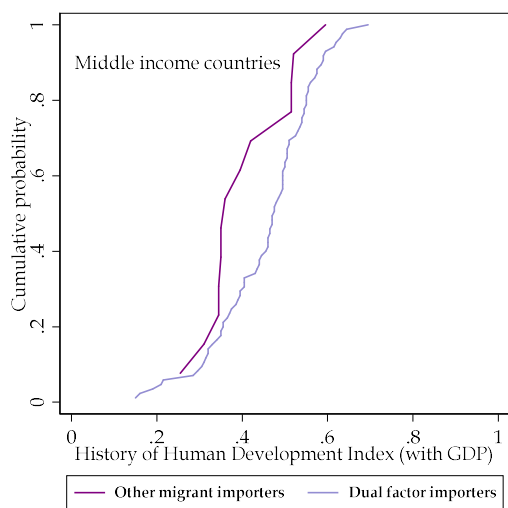
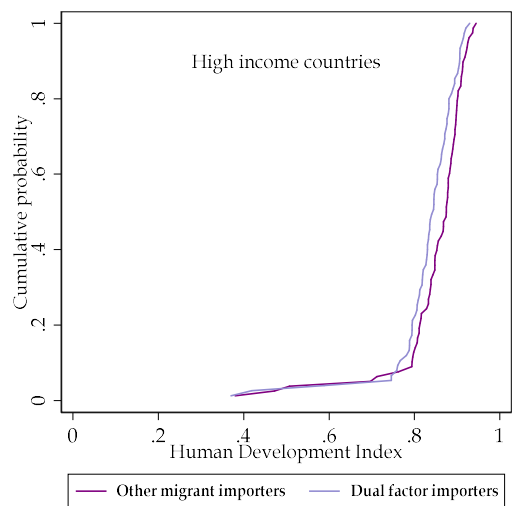
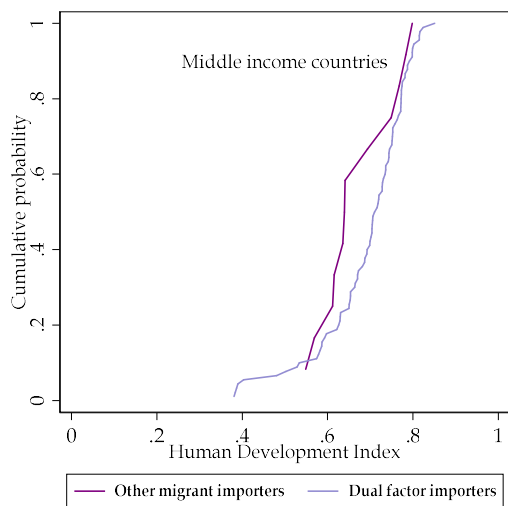
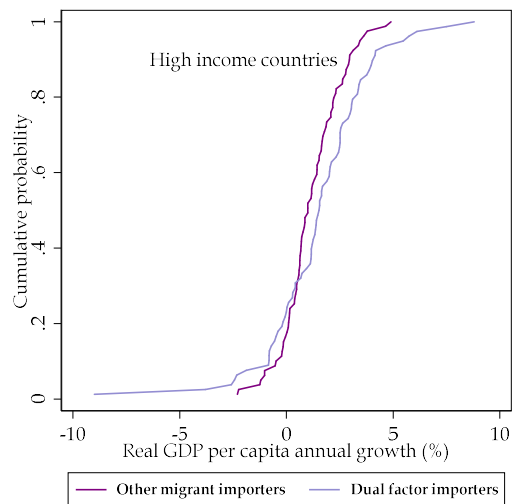
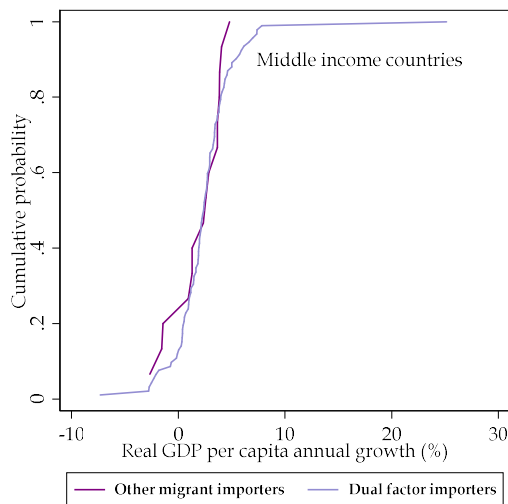
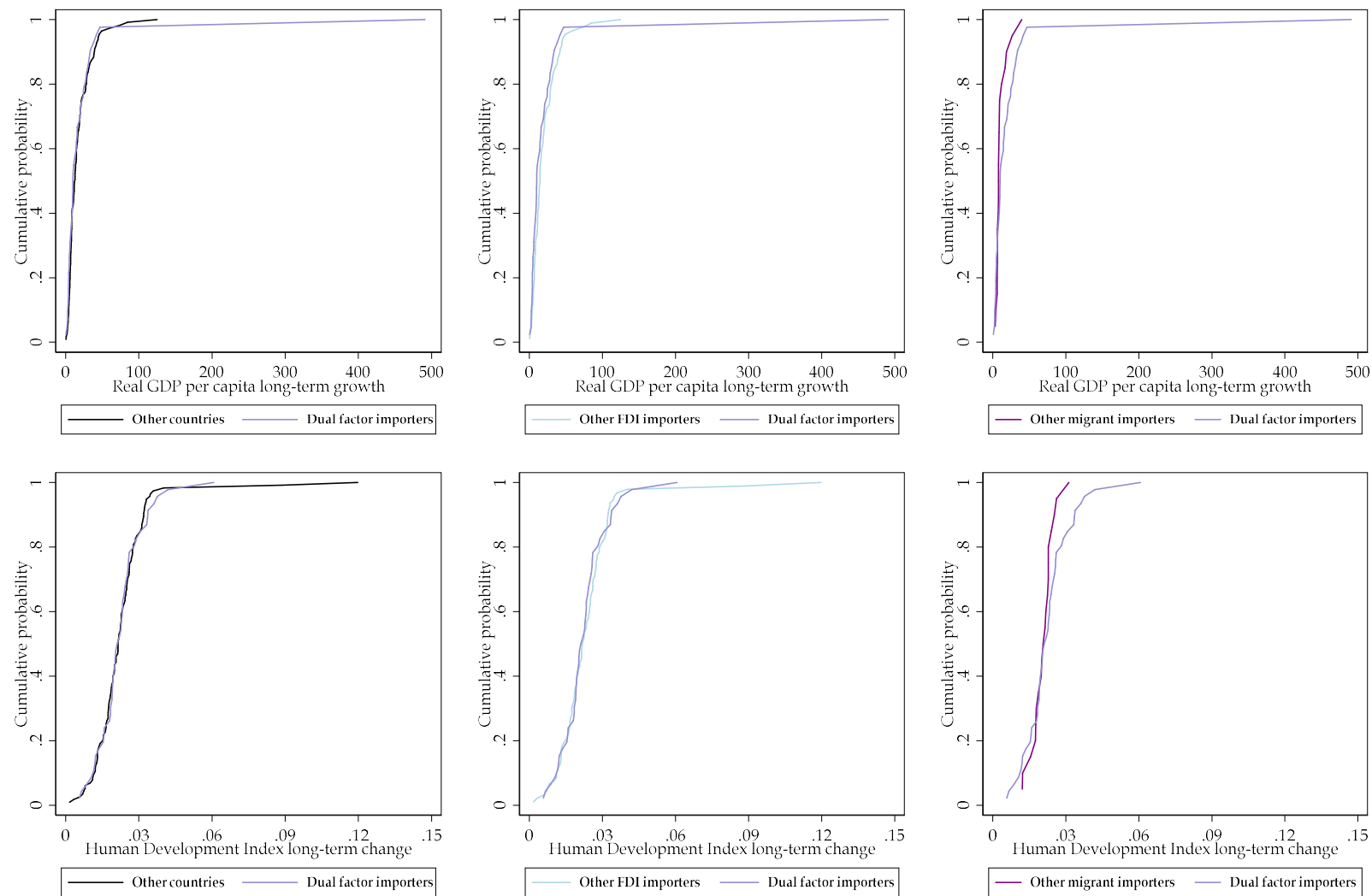
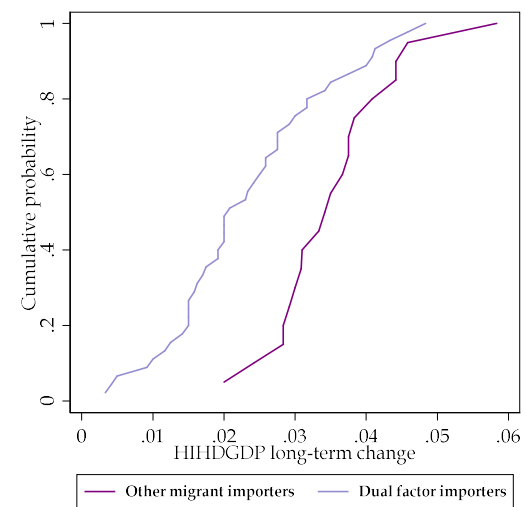
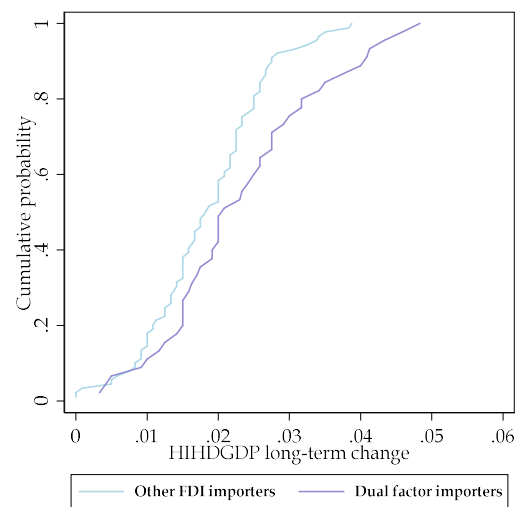
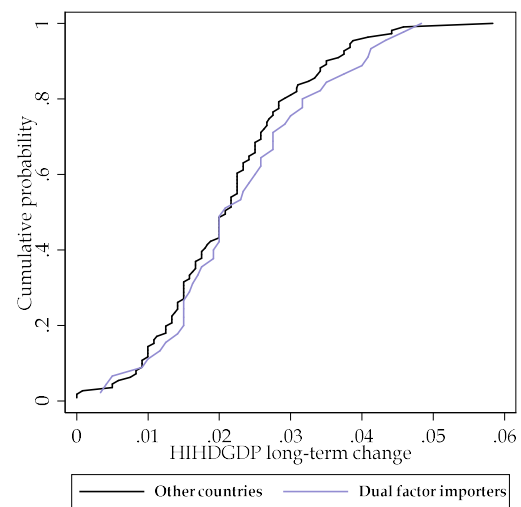


Figure D.6: Welfare measure cumulative distributions: long-term





Appendix E

Supplementary for Chapter 4

Table E.1: Summary statistics

	Mean	Std. Dev.	Min	Max	N
GFDI (US\$bn)	3.762	3.778	0.030	12.198	52
APVD (US\$bn)	5.322	5.896	0.088	22.222	48
NFDI (US\$bn)	0.417	2.796	-7.904	5.023	52
FCR (index)	58.880	19.236	36.930	100.000	56
LFS (mn)	1.005	0.699	0.136	2.244	35
UNhigh(mn)	4.358	1.688	2.540	8.660	55
UNlow(mn)	3.601	1.174	2.120	6.530	55
ECI (index)	0.190	0.648	-0.882	1.118	54
PCI (index)	0.223	0.539	-0.922	1.260	53
EXH (US\$bn)	28.238	34.989	0.000	102.000	52
EXL (US\$bn)	5.598	6.172	0.000	18.400	52
HCI (index)	2.198	0.544	1.394	3.034	55
EDUA (index)	95.349	37.641	40.794	157.730	48
LIBDEM (index)	0.200	0.029	0.133	0.292	56
RGDP	231.307	206.677	24.747	720.269	55
CAPSTK	843.826	737.849	65.020	2594.892	55

Table E.2: Pairwise correlations between FDI and migration measures — selected periods

Complementarity	Full period*			1988-			Before 1988			1988-2004			2005-		
	LFS	UNhigh	UNlow	LFS	UNhigh	UNlow	LFS	UNhigh	UNlow	LFS	UNhigh	UNlow	LFS	UNhigh	UNlow
GFDI	0.85	0.89	0.87	0.79	0.79	0.03	-0.91	0.57	0.19	0.13	0.41	0.43	0.73	0.65	0.65
APVD	0.83	0.84	0.81	0.77	0.73	0.12	-0.08	-0.13	-0.37	-0.11	-0.05	-0.01	0.61	0.56	0.55
FCR	0.95	0.95	0.93	0.93	0.92	0.85	0.99	0.51	-0.03	0.79	0.6	0.57	0.95	0.95	0.95
NFDI	-0.31	-0.35	-0.36	-0.33	-0.48	0.38	-0.89	0.67	0.34	-0.24	0.03	0.06	0.38	0.22	0.24

*Since 1963 for FCR, UNhigh and UNlow; 1967 for GFDI and NFDI; 1971 for APVD; but only 1982 for LFS.

Colour coded with the darkness of the colour indicating correlation strength (white = minimal/no correlation; light=weak correlation; mid=moderate correlation; and dark=strong correlation).

Table E.3: Pairwise correlations between various measures and ECI — selected periods

	Full period*	1988-	Before 1988	1988-2004	2005-		Full period*	1988-	Before 1988	1988-2004	2005-
GFDI	0.76	0.5	0.5	0.06	0.54	HCI	0.97	0.9	0.86	0.94	0.21
APVD	0.7	0.47	0.46	-0.06	0.24	EDUA	0.96	0.89	0.87	0.94	-0.86
FCR	0.89	0.83	0.79	0.84	0.30	LIBDEM	0.33	0.75	0.04	0.71	-0.53
NFDI	-0.22	-0.46	0.39	-0.23	0.30	RGDP	0.87	0.76	0.84	0.94	0.35
LFS	0.81	0.74	0.87	0.87	0.37	CAPSTK	0.92	0.83	0.88	0.94	0.30
UNhigh	0.83	0.78	0.1	0.79	0.32						
UNlow	0.8	0.8	-0.37	0.76	0.34						
GFDI*LFS	0.63	0.55	-0.43	0.51	0.46	FCR*LFS	0.76	0.69	0.86	0.92	0.55
GFDI*UNhigh	0.72	0.57	0.44	0.25	0.52	FCR*UNhigh	0.82	0.76	0.46	0.91	0.48
GFDI*UNlow	0.73	0.57	0.41	0.24	0.53	FCR*UNlow	0.81	0.78	0.18	0.90	0.47
APVD*LFS	0.6	0.54	-0.03	0.69	0.32	NFDI*LFS	-0.23	-0.25	-0.49	0.38	0.52
APVD*UNhigh	0.65	0.53	0.4	0.34	0.29	NFDI*UNhigh	-0.22	-0.36	0.34	0.01	0.45
APVD*UNlow	0.66	0.53	0.35	0.32	0.29	NFDI*UNlow	-0.22	-0.37	0.31	-0.01	0.44

As per Table E.2.

Table E.4: Pairwise correlations between various measures and PCI — selected periods

	Full period*	1988-	Before 1988	1988-2004	2005-		Full period*	1988-	Before 1988	1988-2004	2005-
GFDI	0.55	0.44	-0.72	-0.26	0.34	HCI	0.57	0.89	-0.57	0.76	0.63
APVD	0.62	0.52	-0.32	-0.19	0.36	EDUA	0.41	0.84	-0.57	0.77	-0.40
FCR	0.71	0.89	-0.52	0.80	0.68	LIBDEM	0.47	0.8	0.36	0.77	-0.24
NFDI	-0.44	-0.57	-0.7	-0.52	0.39	RGDP	0.69	0.82	-0.64	0.78	0.66
LFS	0.82	0.76	0.84	0.65	0.59	CAPSTK	0.69	0.87	-0.57	0.77	0.72
UNhigh	0.68	0.77	-0.35	0.48	0.60						
UNlow	0.7	0.76	0.02	0.44	0.62						
GFDI*LFS	0.65	0.59	-0.93	0.18	0.37	FCR*LFS	0.8	0.76	0.85	0.74	0.63
GFDI*UNhigh	0.61	0.56	-0.71	-0.09	0.33	FCR*UNhigh	0.71	0.82	-0.49	0.72	0.65
GFDI*UNlow	0.61	0.56	-0.7	-0.11	0.33	FCR*UNlow	0.72	0.82	-0.33	0.69	0.66
APVD*LFS	0.64	0.61	0.64	0.46	0.13	NFDI*LFS	-0.33	-0.35	-0.95	-0.01	0.36
APVD*UNhigh	0.63	0.59	-0.36	0.09	0.22	NFDI*UNhigh	-0.39	-0.48	-0.68	-0.36	0.36
APVD*UNlow	0.63	0.59	-0.35	0.06	0.23	NFDI*UNlow	-0.4	-0.49	-0.66	-0.38	0.37

As per Table AE.2.

Table E.5: Pairwise correlations between various measures and EXH — selected periods

	Full period*	1988-	Before 1988	1988-2004	2005-		Full period*	1988-	Before 1988	1988-2004	2005-
GFDI	0.7	0.37	0.13	-0.05	-0.55	HCI	0.87	0.84	0.74	0.91	-0.83
APVD	0.67	0.39	0.69	-0.10	-0.51	EDUA	0.85	0.96	0.75	0.91	0.04
FCR	0.9	0.79	0.61	0.87	-0.86	LIBDEM	0.49	0.85	-0.22	0.79	0.24
NFDI	-0.47	-0.64	-0.03	-0.39	-0.13	RGDP	0.86	0.7	0.59	0.93	-0.87
LFS	0.73	0.59	0.58	0.82	-0.80	CAPSTK	0.89	0.75	0.76	0.91	-0.85
UNhigh	0.84	0.69	-0.24	0.72	-0.81						
UNlow	0.83	0.7	-0.62	0.68	-0.82						
GFDI*LFS	0.52	0.39	-0.94	0.43	-0.75	FCR*LFS	0.68	0.56	0.59	0.89	-0.82
GFDI*UNhigh	0.68	0.43	0.07	0.15	-0.68	FCR*UNhigh	0.84	0.69	0.13	0.89	-0.84
GFDI*UNlow	0.69	0.43	0.04	0.13	-0.67	FCR*UNlow	0.84	0.7	-0.15	0.87	-0.84
APVD*LFS	0.51	0.42	0.92	0.66	-0.69	NFDI*LFS	-0.4	-0.42	-0.93	0.24	-0.02
APVD*UNhigh	0.63	0.44	0.54	0.29	-0.61	NFDI*UNhigh	-0.45	-0.54	-0.07	-0.16	-0.07
APVD*UNlow	0.64	0.44	0.48	0.26	-0.60	NFDI*UNlow	-0.45	-0.55	-0.09	-0.17	-0.08

As per Table E.2.

Table E.6: Pairwise correlations between various measures and EXL over selected periods

	Full period*	1988-	Before 1988	1988-2004	2005-		Full period*	1988-	Before 1988	1988-2004	2005-
GFDI	0.86	0.71	0.67	0.71	0.79	HCI	0.81	0.42	0.82	0.18	0.93
APVD	0.69	0.41	0.45	0.02	0.56	EDUA	0.72	0.1	0.82	0.17	0.80
FCR	0.71	0.32	0.74	-0.17	0.93	LIBDEM	0.13	0.17	-0.11	-0.25	-0.29
NFDI	-0.09	-0.1	0.55	0.56	-0.03	RGDP	0.59	0.48	0.87	0.15	0.95
LFS	0.72	0.58	0.29	0.18	0.93	CAPSTK	0.76	0.45	0.86	0.13	0.90
UNhigh	0.8	0.59	0.24	0.49	0.88						
UNlow	0.79	0.6	-0.21	0.53	0.88						
GFDI*LFS	0.71	0.65	0.25	0.50	0.89	FCR*LFS	0.66	0.56	0.28	0.05	0.93
GFDI*UNhigh	0.8	0.65	0.63	0.71	0.87	FCR*UNhigh	0.68	0.48	0.54	0.17	0.90
GFDI*UNlow	0.81	0.66	0.61	0.72	0.87	FCR*UNlow	0.75	0.48	0.28	0.20	0.90
APVD*LFS	0.54	0.45	-0.48	0.18	0.73	NFDI*LFS	-0.23	-0.21	0.22	0.60	-0.18
APVD*UNhigh	0.64	0.44	0.44	0.27	0.65	NFDI*UNhigh	-0.16	-0.12	0.52	0.70	-0.09
APVD*UNlow	0.65	0.44	0.4	0.28	0.65	NFDI*UNlow	-0.15	-0.11	0.49	0.70	-0.09

As per Table E.2.

Table E.7: Baseline complementarity relationships

	Full period			1988-2004			2005-		
	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term
GFDI → LFS	Yes	Yes	Yes	No	No	-	Yes	No	Yes
GFDI → UNhigh	Yes	No	Yes	No	No	Yes	No	-	Yes
GFDI → UNlow	Yes	-	Yes	No	-	Yes	No	-	Yes
APVD → LFS	Yes	Yes	Yes	No	No	Yes	Yes	Yes	-
APVD → UNhigh	Yes	Yes	-	No	No	Yes	Yes	Yes	Yes
APVD → UNlow	Yes	Yes	-	No	No	Yes	Yes	Yes	-
FCR → LFS	No	No	-	Yes	Yes	-	Yes	Yes	-
FCR → UNhigh	No	No	-	No	No	-	Yes	No	-
FCR → UNlow	No	No	-	No	No	-	Yes	No	-
NFDI → LFS	Yes	Yes	-	No	No	-	Yes	Yes	-
NFDI → UNhigh	Yes	Yes	-	No	No	-	Yes	Yes	-
NFDI → UNlow	No	Yes	-	No	No	-	Yes	Yes	-
LFS → GFDI	Yes	No	Yes	No	No	-	Yes	No	Yes
UNhigh → GFDI	Yes	No	Yes	Yes	Yes	No	Yes	-	Yes
UNlow → GFDI	Yes	-	Yes	No	-	No	Yes	-	Yes
LFS → APVD	Yes	Yes	Yes	No	No	No	Yes	Yes	-
UNhigh → APVD	No	No	-	No	No	Yes	No	No	Yes
UNlow → APVD	No	No	-	No	No	Yes	No	No	-
LFS → FCR	Yes	Yes	-	Yes	Yes	-	Yes	No	-
UNhigh → FCR	Yes	No	-	No	No	-	No	No	-
UNlow → FCR	Yes	No	-	No	No	-	No	No	-
LFS → NFDI	Yes	Yes	-	No	No	-	Yes	Yes	-
UNhigh → NFDI	No	No	-	No	No	-	Yes	No	-
UNlow → NFDI	No	No	-	No	No	-	No	-	-

Notes: Individual cells correspond to a unique model specification. 'Yes' indicates Granger causality at the $p < 0.05$ significance level, 'No' is stated otherwise, with a red 'No' indicating a specification that narrowly misses the $p < 0.05$ criteria and/or has statistically significant lags. Colour coding indicates the direction of the relationship based on impulse response functions over a five-year period for short-term results (VAR and Diff/VEC columns) and fifteen-year period for the long-term. Red represents a negative, green a positive and yellow a relatively neutral relationship. A dash represents either a one-lag model in which short-term results are unavailable or the absence of cointegration.

Table E.8: Baseline Granger causal relationships for ECI models

ECI	Full period			1988-2004			2005-		
	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	LT	VAR	Diff/VEC	LT
GFDI	No	No	-	No	No	-	Yes	No	Yes
APVD	No	No	-	Yes	Yes	-	No	No	-
FCR	No	No	-	No	No	Yes	No	No	-
NFDI	No	No	-	Yes	Yes	Yes	Yes	Yes	-
LFS	No	No	-	No	No	-	Yes	Yes	No
UNhigh	No	No	-	No	No	-	Yes	No	-
UNlow	No	No	-	No	No	-	Yes	No	-
GFDI*LFS	No	No	-	No	No	-	Yes	No	-
GFDI*UNhigh	No	No	-	No	No	-	Yes	No	Yes
GFDI*UNlow	No	No	-	No	No	-	Yes	No	Yes
APVD*LFS	No	No	-	Yes	Yes	Yes	Yes	No	-
APVD*UNhigh	No	No	-	Yes	No	Yes	No	No	-
APVD*UNlow	No	No	-	Yes	No	Yes	No	No	-
FCR*LFS	No	No	-	Yes	No	-	Yes	No	Yes
FCR*UNhigh	No	No	-	Yes	No	Yes	No	No	-
FCR*UNlow	No	No	-	Yes	No	Yes	No	No	-
NFDI*LFS	No	No	-	No	No	-	No	No	-
NFDI*UNhigh	No	No	-	Yes	Yes	-	No	No	-
NFDI*UNlow	No	No	-	Yes	Yes	-	No	No	-
HCI	Yes	No	-	Yes	Yes	-	Yes	No	Yes
EDUA	Yes	No	-	Yes	No	-	N/A	N/A	N/A
LIBDEM	No	No	-	No	No	-	No	No	-
RGDP	No	No	No	Yes	No	-	No	No	-
CAPSTK	No	No	-	Yes	No	-	No	No	-

Notes: As per Table E.7.

Table E.9: Baseline Granger causal relationships for PCI models

PCI	Full period			1988-2004			2005-		
	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term
GFDI	No	No	-	Yes	Yes	-	Yes	No	-
APVD	No	No	-	No	No	-	No	No	-
FCR	No	No	-	Yes	No	-	Yes	No	-
NFDI	No	No	-	No	Yes	-	No	No	-
LFS	Yes	No	-	No	Yes	-	Yes	No	Yes
UNhigh	Yes	No	-	No	No	-	Yes	Yes	Yes
UNlow	Yes	No	-	No	No	-	Yes	Yes	Yes
GFDI*LFS	No	No	-	Yes	Yes	Yes	Yes	No	Yes
GFDI*UNhigh	Yes	No	-	Yes	Yes	-	Yes	No	No
GFDI*UNlow	Yes	No	-	Yes	Yes	-	Yes	No	No
APVD*LFS	No	No	-	No	No	-	Yes	No	Yes
APVD*UNhigh	No	No	-	No	No	-	Yes	-	Yes
APVD*UNlow	No	No	-	No	No	-	Yes	No	Yes
FCR*LFS	Yes	No	-	Yes	Yes	-	Yes	No	Yes
FCR*UNhigh	Yes	No	-	Yes	Yes	-	Yes	Yes	Yes
FCR*UNlow	Yes	No	-	Yes	Yes	-	Yes	Yes	Yes
NFDI*LFS	No	No	-	Yes	Yes	Yes	No	No	-
NFDI*UNhigh	No	No	-	No	Yes	-	No	No	-
NFDI*UNlow	No	No	-	No	Yes	-	No	No	-
HCI	Yes	No	-	No	No	-	Yes	Yes	-
EDUA	No	No	-	No	No	-	N/A	N/A	N/A
LIBDEM	Yes	Yes	-	No	No	No	No	No	Yes
RGDP	Yes	No	-	Yes	Yes	Yes	Yes	No	-
CAPSTK	Yes	No	-	Yes	Yes	Yes	Yes	No	Yes

Notes: As per Table E.7.

Table E.10: Baseline Granger causal relationships for EXH models

EXH	Full period			1988-2004			2005-		
	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term
GFDI	Yes	Yes	-	Yes	No	Yes	Yes	-	Yes
APVD	No	Yes	-	Yes	Yes	Yes	Yes	No	Yes
FCR	Yes	Yes	-	Yes	Yes	Yes	Yes	No	-
NFDI	Yes	Yes	Yes	Yes	Yes	Yes	No	No	-
LFS	Yes	Yes	-	Yes	Yes	Yes	Yes	No	Yes
UNhigh	No	No	Yes	No	No	-	Yes	No	Yes
UNlow	No	No	-	No	No	-	Yes	No	Yes
GFDI*LFS	Yes	Yes	-	Yes	Yes	-	Yes	-	Yes
GFDI*UNhigh	Yes	Yes	-	Yes	Yes	Yes	Yes	-	Yes
GFDI*UNlow	Yes	Yes	-	Yes	Yes	Yes	Yes	-	Yes
APVD*LFS	Yes	Yes	-	Yes	Yes	-	Yes	No	-
APVD*UNhigh	No	No	Yes	Yes	Yes	-	Yes	No	-
APVD*UNlow	No	No	Yes	Yes	Yes	-	Yes	No	-
FCR*LFS	Yes	Yes	-	Yes	Yes	-	Yes	No	Yes
FCR*UNhigh	No	No	No	Yes	Yes	-	Yes	No	Yes
FCR*UNlow	No	No	-	Yes	Yes	-	Yes	No	Yes
NFDI*LFS	Yes	No	Yes	Yes	Yes	Yes	No	No	-
NFDI*UNhigh	Yes	Yes	Yes	Yes	Yes	Yes	No	No	-
NFDI*UNlow	Yes	Yes	Yes	Yes	Yes	Yes	No	No	-
HCI	No	No	-	No	No	-	Yes	Yes	Yes
EDUA	Yes	Yes	Yes	No	Yes	-	N/A	N/A	N/A
LIBDEM	No	No	-	No	No	-	No	No	-
RGDP	Yes	Yes	No	No	Yes	-	Yes	No	Yes
CAPSTK	Yes	Yes	-	Yes	Yes	Yes	Yes	No	-

Notes: As per Table E.7.

Table E.11: Baseline Granger causal relationships for EXL models

EXL	Full period			1988-2004			2005-		
	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term	VAR	Diff/VEC	Long-term
GFDI	Yes	-	Yes	Yes	Yes	-	No	Yes	Yes
APVD	Yes	No	-	No	No	-	No	No	-
FCR	Yes	Yes	No	No	No	Yes	Yes	No	-
NFDI	No	Yes	-	Yes	Yes	-	No	No	-
LFS	No	Yes	-	Yes	Yes	No	Yes	Yes	-
UNhigh	No	No	-	No	No	-	Yes	No	Yes
UNlow	No	No	-	No	No	-	Yes	No	Yes
GFDI*LFS	No	No	-	Yes	Yes	Yes	No	Yes	-
GFDI*UNhigh	No	No	-	Yes	Yes	-	No	Yes	-
GFDI*UNlow	No	No	-	Yes	Yes	-	No	Yes	-
APVD*LFS	No	No	-	No	No	-	Yes	No	Yes
APVD*UNhigh	No	No	-	No	No	-	No	Yes	-
APVD*UNlow	No	No	-	No	No	-	No	Yes	-
FCR*LFS	No	No	-	Yes	Yes	Yes	Yes	Yes	-
FCR*UNhigh	No	No	No	No	No	-	No	-	Yes
FCR*UNlow	No	Yes	No	No	No	-	No	-	Yes
NFDI*LFS	No	No	-	Yes	Yes	-	No	Yes	Yes
NFDI*UNhigh	No	No	-	Yes	Yes	-	No	Yes	Yes
NFDI*UNlow	No	No	-	Yes	Yes	-	No	Yes	Yes
HCI	Yes	No	-	No	No	-	Yes	Yes	Yes
EDUA	No	No	-	No	No	-	N/A	N/A	N/A
LIBDEM	No	No	-	No	No	-	No	No	-
RGDP	No	No	-	Yes	No	-	Yes	No	Yes
CAPSTK	Yes	Yes	Yes	No	Yes	Yes	No	No	-

Notes: As per Table E.7.

Table E.12: FDI and migration complementarity – Granger causality under VAR at levels specifications (ECI)

	ECI	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall*	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	69%	94%	55%	9%
GFDI → UNhigh	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	50%	75%	100%	100%
GFDI → UNlow	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No	No	No	Yes	50%	75%	100%	0%
APVD → LFS	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	81%	94%	46%	31%
APVD → UNhigh	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	81%	81%	85%	0%
APVD → UNlow	Yes	No	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	63%	63%	80%	10%
FCR → LFS	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No	44%	50%	29%	43%
FCR → UNhigh	Yes	No	Yes	No	No	No	No	No	No	Yes	No	No	Yes	No	No	25%	44%	25%	50%
FCR → UNlow	No	No	Yes	No	No	No	No	No	No	Yes	No	No	Yes	No	No	19%	19%	0%	67%
NFDI → LFS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	88%	94%	21%	0%
NFDI → UNhigh	No	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	63%	63%	40%	20%
NFDI → UNlow	No	Yes	No	No	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	50%	50%	38%	13%
LFS → GFDI	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	69%	88%	44%	6%
UNhigh → GFDI	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	75%	81%	83%	0%
UNlow → GFDI	Yes	Yes	No	No	Yes	No	Yes	No	Yes	No	No	Yes	Yes	Yes	No	56%	75%	89%	0%
LFS → APVD	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	69%	88%	82%	0%
UNhigh → APVD	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	Yes	19%	19%	0%	67%
UNlow → APVD	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	Yes	19%	19%	0%	100%
LFS → FCR	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	No	No	No	50%	63%	100%	0%
UNhigh → FCR	Yes	No	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	63%	69%	90%	0%
UNlow → FCR	Yes	No	Yes	Yes	No	Yes	No	No	No	Yes	Yes	No	Yes	No	Yes	56%	56%	89%	0%
LFS → NFDI	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	69%	69%	0%	45%
UNhigh → NFDI	No	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	25%	38%	0%	100%
UNlow → NFDI	No	No	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	No	38%	44%	0%	100%

Notes: Individual cells correspond to a unique model specification, relating to the relationship in the first column and the control variable(s) noted in the first row. 'Yes' indicates Granger causality at the $p < 0.05$ significance level, 'No' is stated otherwise, with a red 'No' indicating a specification that narrowly misses the $p < 0.05$ criteria and/or has statistically significant lags. Colour coding indicates the direction of the relationship based on impulse response functions over a five-year period. Red represents a negative relationship, green a positive relationship and yellow an up and down (relatively neutral) relationship. The final four columns indicate the overall proportion of 'Yes' cells (*including the baseline full period specification for ECI), the overall proportion of 'Yes' plus red 'No' cells, the share of green 'Yes' cells in total yesses and the share of red 'Yes' cells in total yesses.

Table E.13: FDI and migration complementarity – VAR levels PCI specifications

	PCI	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	87%	100%	62%	8%
GFDI → UNhigh	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	60%	93%	100%	0%
GFDI → UNlow	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No	No	Yes	No	47%	93%	100%	0%
APVD → LFS	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	67%	80%	50%	10%
APVD → UNhigh	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No	No	53%	73%	100%	0%
APVD → UNlow	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No	Yes	No	No	47%	60%	100%	0%
FCR → LFS	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	73%	73%	36%	64%
FCR → UNhigh	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	33%	40%	80%	0%
FCR → UNlow	Yes	No	No	Yes	No	No	No	No	No	Yes	No	No	Yes	No	No	27%	27%	50%	0%
NFDI → LFS	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	67%	67%	20%	0%
NFDI → UNhigh	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	47%	47%	14%	14%
NFDI → UNlow	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	47%	47%	14%	14%
LFS → GFDI	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	67%	67%	40%	40%
UNhigh → GFDI	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	80%	93%	58%	0%
UNlow → GFDI	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	80%	93%	75%	0%
LFS → APVD	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	73%	73%	64%	9%
UNhigh → APVD	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	No	No	13%	13%	0%	0%
UNlow → APVD	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	7%	7%	0%	0%
LFS → FCR	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	No	53%	60%	75%	0%
UNhigh → FCR	Yes	No	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	67%	80%	90%	0%
UNlow → FCR	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	67%	73%	100%	0%
LFS → NFDI	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	60%	60%	11%	44%
UNhigh → NFDI	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	13%	13%	0%	100%
UNlow → NFDI	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	13%	13%	0%	100%

Notes: As per Table E.12.

Table E.14: FDI and migration complementarity – VAR levels EXH specifications

	EXH	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No	Yes	53%	87%	88%	13%
GFDI → UNhigh	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	Yes	No	No	No	33%	93%	80%	0%
GFDI → UNlow	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	Yes	No	No	No	33%	87%	80%	0%
APVD → LFS	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	73%	80%	47%	7%
APVD → UNhigh	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	87%	100%	92%	0%
APVD → UNlow	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	Yes	No	No	60%	93%	100%	0%
FCR → LFS	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	87%	87%	0%	46%
FCR → UNhigh	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	53%	53%	13%	63%
FCR → UNlow	No	Yes	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	47%	53%	14%	71%
NFDI → LFS	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	73%	73%	27%	0%
NFDI → UNhigh	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	60%	93%	100%	0%
NFDI → UNlow	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	73%	87%	100%	0%
LFS → GFDI	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	60%	67%	44%	44%
UNhigh → GFDI	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	87%	93%	62%	0%
UNlow → GFDI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	93%	93%	71%	0%
LFS → APVD	No	No	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	No	47%	60%	57%	29%
UNhigh → APVD	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	73%	73%	9%	55%
UNlow → APVD	Yes	Yes	Yes	No	No	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	53%	60%	13%	63%
LFS → FCR	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	60%	73%	100%	0%
UNhigh → FCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	87%	93%	77%	0%
UNlow → FCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	87%	93%	62%	0%
LFS → NFDI	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	53%	60%	13%	75%
UNhigh → NFDI	Yes	Yes	No	Yes	No	Yes	Yes	No	No	Yes	No	Yes	No	Yes	Yes	60%	80%	11%	0%
UNlow → NFDI	No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	60%	73%	44%	0%

Notes: As per Table E.12.

Table E.15: FDI and migration complementarity – VAR levels EXL specifications

	EXL	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	80%	100%	73%	8%
GFDI → UNhigh	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	73%	93%	100%	0%
GFDI → UNlow	Yes	No	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No	47%	93%	100%	0%
APVD → LFS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	93%	93%	67%	0%
APVD → UNhigh	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	80%	80%	100%	0%
APVD → UNlow	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	73%	80%	100%	0%
FCR → LFS	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	67%	67%	60%	20%
FCR → UNhigh	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	13%	33%	100%	0%
FCR → UNlow	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	13%	40%	100%	0%
NFDI → LFS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	87%	87%	38%	0%
NFDI → UNhigh	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	73%	87%	45%	18%
NFDI → UNlow	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	73%	87%	55%	9%
LFS → GFDI	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	80%	87%	50%	8%
UNhigh → GFDI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	93%	93%	57%	0%
UNlow → GFDI	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	87%	93%	62%	0%
LFS → APVD	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	73%	80%	45%	18%
UNhigh → APVD	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	13%	13%	50%	50%
UNlow → APVD	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0%	0%	N/A	N/A
LFS → FCR	No	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	60%	80%	78%	0%
UNhigh → FCR	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	87%	100%	100%	0%
UNlow → FCR	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	80%	100%	100%	0%
LFS → NFDI	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No	Yes	60%	67%	0%	89%
UNhigh → NFDI	No	No	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	53%	60%	0%	100%
UNlow → NFDI	No	No	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	53%	60%	0%	100%

Notes: As per Table E.12.

Table E.16: FDI and migration complementarity – short-term Granger causality under VAR first-differences/VECM specifications (ECI)

	ECI	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall*	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	-	No	No	60%	80%	56%	0%
GFDI → UNhigh	Yes	No	No	Yes	No	Yes	No	No	No	No	-	No	No	Yes	Yes	33%	40%	100%	0%
GFDI → UNlow	Yes	No	No	Yes	No	No	No	No	No	No	-	No	No	Yes	-	23%	31%	100%	0%
APVD → LFS	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	-	Yes	Yes	Yes	87%	87%	38%	23%
APVD → UNhigh	Yes	Yes	No	Yes	-	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	73%	93%	82%	9%
APVD → UNlow	Yes	No	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	63%	69%	70%	10%
FCR → LFS	No	No	No	No	No	No	No	-	Yes	No	No	-	No	No	Yes	14%	43%	0%	50%
FCR → UNhigh	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	13%	19%	0%	50%
FCR → UNlow	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	6%	13%	0%	0%
NFDI → LFS	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	81%	81%	23%	15%
NFDI → UNhigh	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	-	No	No	Yes	Yes	73%	73%	36%	0%
NFDI → UNlow	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	63%	63%	60%	0%
LFS → GFDI	Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	No	-	Yes	Yes	40%	47%	67%	0%
UNhigh → GFDI	No	No	Yes	No	Yes	No	No	No	Yes	No	-	Yes	No	Yes	No	33%	40%	60%	0%
UNlow → GFDI	No	No	Yes	No	Yes	No	No	No	No	No	-	Yes	No	Yes	-	31%	38%	50%	0%
LFS → APVD	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	No	-	No	No	Yes	53%	60%	38%	0%
UNhigh → APVD	No	No	No	No	-	No	No	No	No	No	No	No	No	No	No	0%	7%	N/A	
UNlow → APVD	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0%	6%	N/A	
LFS → FCR	Yes	Yes	Yes	No	No	No	No	-	No	Yes	Yes	-	Yes	No	No	50%	50%	100%	0%
UNhigh → FCR	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	6%	23%	0%	0%
UNlow → FCR	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	13%	23%	0%	0%
LFS → NFDI	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	50%	50%	13%	23%
UNhigh → NFDI	No	No	No	No	No	No	No	No	No	No	-	No	No	No	No	0%	0%	N/A	
UNlow → NFDI	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	6%	6%	0%	100%

Notes: As per Table E.12

Table E.17: FDI and migration complementarity – VEC/DIFF short-term PCI specifications

	PCI	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	-	No	No	No	No	43%	43%	100%	0%
GFDI → UNhigh	-	Yes	-	No	No	No	No	Yes	No	No	No	No	No	Yes	No	23%	31%	100%	0%
GFDI → UNlow	-	Yes	No	Yes	No	No	No	No	No	No	No	No	No	No	No	14%	14%	100%	0%
APVD → LFS	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	67%	73%	50%	10%
APVD → UNhigh	-	Yes	No	-	Yes	Yes	Yes	No	Yes	Yes	-	No	Yes	Yes	No	67%	67%	75%	13%
APVD → UNlow	-	No	No	Yes	-	Yes	Yes	No	Yes	No	-	No	No	Yes	No	42%	42%	100%	0%
FCR → LFS	No	Yes	No	No	No	Yes	No	No	No	No	No	No	No	No	No	13%	13%	50%	50%
FCR → UNhigh	No	No	-	No	No	No	No	No	No	No	-	No	Yes	No	No	8%	15%	100%	0%
FCR → UNlow	No	No	-	No	No	Yes	No	No	No	No	-	No	Yes	No	No	15%	15%	50%	50%
NFDI → LFS	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	-	Yes	Yes	No	Yes	71%	71%	40%	10%
NFDI → UNhigh	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	-	-	-	Yes	Yes	83%	83%	20%	0%
NFDI → UNlow	Yes	Yes	-	Yes	Yes	Yes	No	Yes	Yes	Yes	-	-	-	Yes	Yes	91%	91%	20%	0%
LFS → GFDI	No	No	No	No	No	No	No	No	No	No	-	Yes	Yes	No	No	14%	14%	0%	100%
UNhigh → GFDI	-	No	-	No	Yes	No	No	No	Yes	Yes	No	Yes	No	No	No	31%	38%	100%	0%
UNlow → GFDI	-	No	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	No	No	No	36%	36%	100%	0%
LFS → APVD	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	60%	67%	100%	0%
UNhigh → APVD	-	No	No	-	No	No	No	No	No	No	-	No	No	No	No	0%	0%	N/A	
UNlow → APVD	-	No	No	No	-	No	No	No	No	No	-	No	No	No	No	0%	0%	N/A	
LFS → FCR	Yes	No	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	No	No	47%	47%	86%	0%
UNhigh → FCR	No	No	-	No	Yes	Yes	No	No	No	No	-	No	Yes	No	Yes	31%	31%	50%	0%
UNlow → FCR	No	No	-	No	No	No	No	No	No	No	-	No	No	No	Yes	8%	15%	0%	0%
LFS → NFDI	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	-	No	No	No	No	36%	36%	20%	60%
UNhigh → NFDI	No	No	No	No	No	No	No	No	No	No	-	-	-	No	No	0%	0%	N/A	
UNlow → NFDI	No	No	-	No	No	No	No	No	No	No	-	-	-	No	No	0%	0%	N/A	

Notes: As per Table E.12.

Table E.18: FDI and migration complementarity – VEC/DIFF short-term EXH specifications

	EXH	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	No	No	Yes	Yes	No	No	Yes	-	No	No	-	No	No	-	No	25%	42%	67%	33%
GFDI → UNhigh	No	No	No	-	No	No	No	Yes	No	Yes	No	No	No	No	No	14%	36%	100%	0%
GFDI → UNlow	No	No	No	-	No	No	No	Yes	No	No	No	No	No	No	No	7%	29%	100%	0%
APVD → LFS	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No	67%	67%	50%	20%
APVD → UNhigh	No	Yes	No	No	Yes	No	No	Yes	No	Yes	No	Yes	No	-	Yes	43%	50%	67%	0%
APVD → UNlow	No	No	Yes	No	No	Yes	No	Yes	No	Yes	No	Yes	No	-	Yes	43%	50%	67%	17%
FCR → LFS	No	Yes	Yes	-	No	Yes	Yes	No	Yes	Yes	Yes	-	-	Yes	No	67%	67%	0%	75%
FCR → UNhigh	No	Yes	No	No	No	No	No	Yes	Yes	No	Yes	Yes	No	No	No	33%	40%	0%	60%
FCR → UNlow	No	No	No	No	No	No	No	Yes	Yes	No	No	Yes	No	No	No	20%	27%	0%	67%
NFDI → LFS	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	-	Yes	Yes	No	Yes	79%	79%	18%	0%
NFDI → UNhigh	No	No	No	No	Yes	No	No	No	Yes	No	No	No	No	Yes	No	20%	20%	100%	0%
NFDI → UNlow	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	7%	7%	100%	0%
LFS → GFDI	No	No	No	No	No	No	No	-	No	Yes	-	No	No	-	Yes	17%	17%	50%	50%
UNhigh → GFDI	Yes	Yes	Yes	-	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	79%	79%	82%	0%
UNlow → GFDI	Yes	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	86%	86%	92%	0%
LFS → APVD	No	Yes	No	No	No	No	No	Yes	No	No	No	No	No	No	No	13%	20%	100%	0%
UNhigh → APVD	Yes	No	No	No	No	Yes	No	No	Yes	No	No	No	No	-	No	21%	29%	0%	67%
UNlow → APVD	Yes	Yes	No	No	No	No	Yes	No	No	No	No	No	No	-	No	21%	29%	0%	67%
LFS → FCR	No	No	No	-	No	No	No	No	No	No	Yes	-	-	No	No	8%	8%	100%	0%
UNhigh → FCR	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	60%	73%	89%	0%
UNlow → FCR	No	Yes	No	No	Yes	No	No	No	No	No	Yes	Yes	Yes	No	No	33%	47%	60%	0%
LFS → NFDI	Yes	No	No	Yes	No	No	Yes	No	No	Yes	-	No	No	No	No	29%	36%	75%	25%
UNhigh → NFDI	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0%	0%	N/A	N/A
UNlow → NFDI	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	7%	7%	0%	0%

Notes: As per Table E.12.

Table E.19: FDI and migration complementarity – VEC/DIFF short-term EXL specifications

	EXL	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → LFS	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	No	Yes	No	No	47%	53%	43%	43%
GFDI → UNhigh	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	-	No	Yes	Yes	64%	64%	89%	0%
GFDI → UNlow	Yes	No	No	Yes	No	No	No	Yes	No	No	No	-	No	No	No	21%	43%	100%	0%
APVD → LFS	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	93%	100%	86%	0%
APVD → UNhigh	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	67%	73%	90%	0%
APVD → UNlow	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	No	No	Yes	No	No	40%	53%	83%	0%
FCR → LFS	Yes	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	13%	47%	0%	50%
FCR → UNhigh	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	7%	7%	100%	0%
FCR → UNlow	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	7%	7%	100%	0%
NFDI → LFS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	87%	93%	38%	8%
NFDI → UNhigh	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	67%	73%	70%	0%
NFDI → UNlow	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No	60%	73%	78%	0%
LFS → GFDI	No	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	No	20%	33%	33%	0%
UNhigh → GFDI	No	No	Yes	No	Yes	No	No	No	No	No	No	-	Yes	Yes	No	29%	57%	50%	0%
UNlow → GFDI	Yes	No	No	No	Yes	No	No	No	Yes	No	No	-	Yes	Yes	No	36%	57%	80%	0%
LFS → APVD	No	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes	Yes	33%	40%	60%	20%
UNhigh → APVD	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	7%	20%	100%	0%
UNlow → APVD	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0%	7%	N/A	
LFS → FCR	Yes	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	20%	33%	67%	0%
UNhigh → FCR	No	No	Yes	Yes	No	No	No	No	Yes	No	No	No	No	No	No	20%	40%	100%	0%
UNlow → FCR	No	No	Yes	Yes	No	No	No	No	Yes	No	No	No	No	No	No	20%	33%	100%	0%
LFS → NFDI	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Yes	47%	53%	0%	86%
UNhigh → NFDI	No	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	13%	27%	0%	100%
UNlow → NFDI	No	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	13%	27%	0%	100%

Notes: As per Table E.12.

Table E.20: FDI and migration complementarity – long-term cointegrated relationships under VEC specifications (ECI)

	ECI	HCI	EDU	LIB	RGDP	CAP	INT	XH	HL	HR	HC	XE	EL	ER	EC	XL	LR	LC	XR	XC	XI	XHL	XHR	XHC	XEL	XER	XEC	XLR	XLC	+ve	-ve	insig	coin.
GFDI → LFS	PP	P			I															N	N	P	P	I			N	I	N	42%	42%	17%	12
GFDI → UNhigh	N				P			PPN	P	N		PN		I		P			PP		N			P	I		P			55%	35%	10%	20
GFDI → UNlow	PP		P		N			PP	P			N		I		P			P				N	P	I		P		P	63%	21%	16%	19
APVD → LFS	PP	P	I					PI	P	I		N		I		P			PIN					P	N		N			44%	28%	28%	18
APVD → UNhigh	PP	P			N			PNI	P	N	N	NN		N	N	PP			P	IP	N		N		I					48%	33%	19%	21
APVD → UNlow								PP	P		P	NN		N	N	PP			P	PP	N		N		I					53%	41%	6%	17
FCR → LFS	PPP		P		P	P	P	N				P				PN	P		P				P	N		P	N			73%	27%	0%	15
FCR → UNhigh	P		P					NN		N		PP		N	P	P		P	PPP	PPP		P			P					79%	21%	0%	19
FCR → UNlow	PP	P	P					N		N		NP		N	P	P		P	NNP	PPP		P			P					70%	30%	0%	20
NFDI → LFS	IPIN		N	P	I	P		NP		P		N		P		P		N	NI	N		P				P				35%	35%	30%	20
NFDI → UNhigh												NN		P	I				NN	N	N				I					11%	67%	22%	9
NFDI → UNlow												INN		P	I				NN	N	N				N					10%	70%	20%	10
LFS → GFDI	PP	P			P															N	N	P	P	P			I	I	N	58%	33%	8%	12
UNhigh → GFDI	P				N			PPN	P	N		PN		N		P			PP		N			I	N		P			50%	45%	5%	20
UNlow → GFDI	PP		P		N			PP	P			N		N		P			P				N	P	P		P		I	63%	32%	5%	19
LFS → APVD	PPP	P	P					P	P	I		N		I		P			PII					P	N		N			56%	17%	28%	18
UNhigh → APVD	PP	P			N			II	P	I	I	NI		N	N	P			P	PP	N		N		P					57%	29%	14%	21
UNlow → APVD								P	P		P	NI		N	I	P			P	PP	N		N		P					59%	24%	18%	17
LFS → FCR	PPP				P	P	P	I				P				PN	P		P				P	I		P	N			80%	7%	13%	15
UNhigh → FCR	P		I					II		I		IP		I	P	P		I	IPI	PPP		I			I					42%	0%	58%	19
UNlow → FCR	PP	P	I					I		I		IP		I	P	P		I	III	PPP		I			I					45%	0%	55%	20
LFS → NFDI	NIPN		N	I	N	P		IP		P		N		I		P		N	NI	N		P				P				45%	40%	15%	20
UNhigh → NFDI												NN		P	P				IN	N	N				P					33%	56%	11%	9
UNlow → NFDI												IIN		P	P				IN	N	N				N					20%	50%	30%	10

Notes: Individual letters within cells correspond to a unique cointegrated relationship within a specification. 'P' indicates a positive long-term relationship at the $p < 0.05$ significance level, 'N' represents a negative long-term relationship at the $p < 0.05$ significance level. 'I' represents a statistically insignificant relationship. Colour coding provides ease of viewing only. The uneven distribution of specifications across columns reflects different ranks of cointegrated relationship. Abbreviations are used for specification labels: X=ECI; H=HCI; E=EDU; L=LIB; R=RGDP; C=CAP; I=INT. For example, the cell corresponding to 'GFDI→LFS' and 'XHL' represents the cointegrated relationship from GFDI to LFS for the specification incorporating ECI, HCI and LIBDEM. The final four columns provide the overall share of specifications with positive, negative and insignificant relationships respectively and the overall number of cointegrated

relationships. The cointegration figures are comparable horizontally (between ECI/PCI/EXH/EXL) and within categories vertically (the categories are: GFDI/APVD/FCR/NFDI to upgrading; LFS/UNhigh/UNlow to upgrading; and all the remaining complementarity relationships).

Table E.21: FDI and migration complementarity – VEC long-term PCI specifications

	PCI	HCI	EDU	LIB	RGDP	CAP	INT	XH	HL	HR	HC	XE	EL	ER	EC	XL	LR	LC	XR	XC	XI	XHL	XHR	XHC	XEL	XER	XEC	XLR	XLC	+ve	-ve	insig	coin.
GFDI → LFS	PPPPP	P	N		I	I		IP		P	N	NPN	I	N	N	PIP		P	PI	PNN	P	P						N		52%	29%	19%	31
GFDI → UNhigh	PP		P					PP			N	P	P			PP			N	PP		P	N			N	P	P	P	79%	21%	0%	19
GFDI → UNlow	PI		P					PPP		P	P	P	P			NP			PP	PP		P				N	P	P	P	86%	10%	5%	21
APVD → LFS	PPP	P		P				PPP	P	P	P	PPPP	I	N	I	NP			PPN	NPP	P							P		79%	14%	7%	28
APVD → UNhigh	PNP				N	P		NP		N	P	N			I	P			P	PN	P	P			I		N	N		50%	40%	10%	20
APVD → UNlow	PP					P		NP		N	P	N			I	P			NP	PN	P	P			I		I	N		53%	32%	16%	19
FCR → LFS	PNP	P			N		P	P			N	PPPN	I	P	N	PPP	P	P	PNN	PNI		P	N							61%	32%	7%	28
FCR → UNhigh								PNP		N	P	PI		N					PN	PP		P			P		P			67%	27%	7%	15
FCR → UNlow	P				P			PNNP	I	N	P	PI		N		P			PN	IP					P		P			58%	26%	16%	19
NFDI → LFS	NPN		N	P			N	NIP	I	N		III	I	I	I	II			INP	IN				N				P		19%	35%	46%	26
NFDI → UNhigh												N			P				N	P					I	P				50%	33%	17%	6
NFDI → UNlow												NN			P				N						I	P				33%	50%	17%	6
LFS → GFDI	PPPPP	P	I		P	N		IP		P	I	NIN	P	N	N	PPP		I	PP	PNN	P	P						N		58%	26%	16%	31
UNhigh → GFDI	PP		P					PI			I	P	P			PP			I	II		P	N			I	P	P	I	58%	5%	37%	19
UNlow → GFDI	PI		I					PPI		I	I	P	P			NP			IP	II		P				I	P	P	I	48%	5%	48%	21
LFS → APVD	PPP	P		P				PPP	P	P	P	PPPP	P	N	P	II			PPN	NPP	P							P		82%	11%	7%	28
UNhigh → APVD	PPP				P	P		NI		N	P	I			N	P			P	PI	I	I			N			I	I	45%	20%	35%	20
UNlow → APVD	PP					P		NP		N	P	I			N	P			IP	PI	I	I			N			I	I	42%	21%	37%	19
LFS → FCR	INP	I			N		P	P			N	PPPI	P	P	N	PPP	P	P	INN	PNP		P	N							57%	29%	14%	28
UNhigh → FCR								PIP		I	P	PI		I					PI	PP		P			P		P			67%	0%	33%	15
UNlow → FCR	P				I			PIIP	P	I	P	PI		I		P			PI	NP					P		P			58%	5%	37%	19
LFS → NFDI	IPN		N	P			N	NIP	N	I		IIP	P	P	N	NN			PNP	NN				I				P		35%	42%	23%	26
UNhigh → NFDI												N			I				N	I					N	P				17%	50%	33%	6
UNlow → NFDI												NN			I				N						N	P				17%	67%	17%	6

Notes: As per Table E.20.

Table E.22: FDI and migration complementarity – VEC long-term EXH specifications

	EXH	HCI	EDU	LIB	RGDP	CAP	INT	XH	HL	HR	HC	XE	EL	ER	EC	XL	LR	LC	XR	XC	XI	XHL	XHR	XHC	XEL	XER	XEC	XLR	XLC	+ve	-ve	insig	coin.	
GFDI → LFS	PPI	P	N		N			NPN	P	P	N	P			P	PP		N	P	PNN	N				I	N		N		50%	42%	8%	26	
GFDI → UNhigh	NI		P		N			PPNN	P	I	N	PNP	P	N	P	PPPP		I	NN	PPPN	N							N		50%	40%	10%	30	
GFDI → UNlow	NI		P		N			PNN		I	P	PNP	P	N	P	PPP		N	NN	PPPN	N	N						N		46%	46%	7%	28	
APVD → LFS	INP		N		I	P		PPPP	P	P	P	PI	I	I		PPPP	P	I	PII	NI	I						P			57%	10%	33%	30	
APVD → UNhigh	IPPP				P	I	I	NI		N		IPP		P	P	P			PP	N		N		N	P			P	N	54%	25%	21%	24	
APVD → UNlow	IIP				N	I		I		N		PPP		P	P	P			II	N	I	N		N	P			P	P	45%	23%	32%	22	
FCR → LFS	PPPPP	P	P		P	N		PP	P		P	PP		I	N	PPP	P		IP	PI	I		P		N			P		76%	10%	14%	30	
FCR → UNhigh	PPPIP	P			P	P	P	N		P		NPP	I	P		PP	N		PPP			N		I			P		N		69%	19%	12%	26
FCR → UNlow	PP	P						N		P		NPP	I	P		II	N		PPPN	N	N	N		I			P		N		48%	35%	17%	23
NFDI → LFS	PPNPPN	N	N	P		I	N	PP	P	P						PPN	N	N	NPP	N				P	I	I	N			50%	39%	11%	28	
NFDI → UNhigh	NPN		N			N		NIP		I	P	NN		P	N	P			NPI	PN	N	N			P			I	N	32%	52%	16%	25	
NFDI → UNlow	NPNNI		N		N	N	I	NI		I		NN		P	N	P			II	N				P	P			N	N	21%	54%	25%	25	
LFS →GFDI	PPN	P	N		I			IIN	I	I	N	P			P	PI		P	I	INPI	N				N	N		I		31%	31%	38%	26	
UNhigh →GFDI	II		I		N			IPNN	P	I	N	PIP	P	I	P	PPPP		N	II	IPI	N							N		37%	23%	40%	30	
UNlow →GFDI	II		I		N			IIN		I	I	PIP	P	I	P	PPP		N	II	PPPI	N	I						I		36%	14%	50%	28	
LFS → APVD	PIPP		N		N	P		PPPI	P	P	P	PI	P	N		PPPI	P	N	PPP	NN	P						I			63%	20%	17%	30	
UNhigh → APVD	PPPP				P	N	N	NP		N		NPI		P	I	I			PP	I		I		N	P			I	I	46%	25%	29%	24	
UNlow → APVD	NIP				I	N		P		N		PPI		P	I	I			PP	I	P	N		N	P			I	I	41%	23%	36%	22	
LFS → FCR	IPPPP	I	P		I	I		PP	P		P	PP		N	N	PPP	P		PPP	PN	P		I		N			P		70%	13%	17%	30	
UNhigh → FCR	PPPPP	P			P	P	P	I		P		IPP	P	I		PI	N		III			N		P			P		N		62%	12%	27%	26
UNlow → FCR	PP	P						I		P		IPP	P	I		PI	I		IPI	N	I	N		P			P		I		48%	9%	43%	23
LFS →NFDI	PIPPN	I	I	P		P	N	II	P	P						PPI	N	N	NPP	N				I	P	N	N			43%	29%	29%	28	
UNhigh →NFDI	NPN		N			N		IIP		N	I	II		P	I	P			IIN	PI	I	I			P			I	N	24%	28%	48%	25	
UNlow →NFDI	NPINN		N		I	N	P	IN		N		II		P	I	P			IN	I				P	P			N	N	25%	42%	33%	25	

Notes: As per Table E.20.

Table E.23: FDI and migration complementarity – VEC long-term EXL specifications

	EXL	HCI	EDU	LIB	RGDP	CAP	INT	XH	HL	HR	HC	XE	EL	ER	EC	XL	LR	LC	XR	XC	XI	XHL	XHR	XHC	XEL	XER	XEC	XLR	XLC	+ve	-ve	insig	coin.
GFDI → LFS	PPPPPP	P	N		P	N	P	PPI	P	P	P					PPP	P	N	PI	IP					I	N	N			69%	17%	14%	29
GFDI → UNhigh	PPP				N	P		PPPI	P	P	I	PPI	P	N		PPPP	N	P	NPP	IPP	P				P					74%	13%	13%	31
GFDI → UNlow	PPP				N	P		PIP	P	I		PPP	P	P		PPPPP	N	P	PPP	P	P			I						82%	7%	11%	28
APVD → LFS	PPP		P		I			PPPP	P	P	I	P			P	PPPP	P	P	PP	PPPP	N					P				89%	4%	7%	28
APVD → UNhigh	IPP	P				P	N	IPP	P	P	I	I			N	NPP	P		IIN	II					N	I			N	42%	23%	35%	26
APVD → UNlow	PP					P	N	PI			I	I			N	PP	P		IN	II		P	I		N	I			N	38%	24%	38%	21
FCR → LFS	PPPPPP	P	P		N	P	P	P			P	P	P			PPP	N	P	N	PP		P	N			P	N			81%	19%	0%	27
FCR → UNhigh	PPPPP	P	P		N	P		PN	P		P	PP		I	P	PPP	N	I	NP	PNP			P		P					76%	17%	7%	29
FCR → UNlow	PPP				N	P		PIN	P		P	PI		P		PPP	N	N	NP	PP			P		P		P			72%	20%	8%	25
NFDI → LFS	NNNNN		N	P	P			NPN	P	P		I			N	NP		P	N	NNP	N			N	I	P		N		35%	58%	8%	26
NFDI → UNhigh	N						P					I			N	II	N	I	II	NIN		N	I	N		P				12%	41%	47%	17
NFDI → UNlow	N						I	PI			I	N			N	II	N	I	NN	IIPN		N	I			P				15%	40%	45%	20
LFS → GFDI	PPPPPP	P	N		P	N	P	PPP	P	P	P					PPP	P	I	IN	PI					N	N	N			69%	21%	10%	29
UNhigh → GFDI	PPP				N	P		PPPP	P	I	P	PPP	P	N		PPPP	N	P	IPP	INP	I				P					74%	13%	13%	31
UNlow → GFDI	PPP				N	P		PNP	P	N		PPP	P	P		PPIPP	N	P	PPP	P	I			P						79%	14%	7%	28
LFS → APVD	PII		I		P			PPPP	P	P	P	P			I	PPPP	P	P	PP	PPPP	I					P				82%	0%	18%	28
UNhigh → APVD	PPP	P				P	I	PPP	P	P	P	P			N	IPP	I		PPI	PN					I	P			N	69%	12%	19%	26
UNlow → APVD	PP					P	I	PP			P	P			N	PP	I		PI	NP		P	N		I	I			N	57%	19%	24%	21
LFS → FCR	PPPPPP	I	P		I	P	P	P			P	P	P			PPP	N	P	N	II		P	N			P	N			70%	15%	15%	27
UNhigh → FCR	PPPPP	P	P		I	P		II	P		P	PP		P	P	PPP	N	N	IP	PNP			P		P					76%	10%	14%	29
UNlow → FCR	PPP				I	P		PNI	P		P	PP		P		PPP	N	N	II	PP			P		P		P			72%	12%	16%	25
LFS → NFDI	NINI		N	P	I			NIN	P	P		I			N	NP		P	N	NIP	N			N	P	P		I		31%	42%	27%	26
UNhigh → NFDI	N						P					N			I	PI	N	N	NN	NNN		N	P	N		P				24%	65%	12%	17
UNlow → NFDI	N						P	IN			P	I			I	PI	N	N	NN	NIIN		N	P			P				25%	45%	30%	20

Notes: As per Table E.20.

Table E.24: FDI and migration measures and industrial upgrading under VAR at levels specifications

	FDI/ MIG	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → ECI	NNN	NYN	YNN	NNN	NNN	YNN	NNN	NYN	YNN	YNN	NNN	NYN	NNN	NNN	NNN	24%	33%	0%	91%
APVD → ECI	NNN	NYN	YYY	NNN	NNN	NNN	NYN	NYN	YNN	YNN	NNN	YYY	YYY	NNN	NNN	37%	41%	0%	100%
FCR → ECI	NNN	NNN	NNN	NNN	NNN	YNN	NYN	NNN	YNN	YYY	YNN	YNN	NNN	NNN	YNN	26%	30%	58%	8%
NFDI → ECI	NNN	NNN	NNN	YNN	NNN	YNN	NNN	NNN	NNN	YNN	NNN	NNN	NNN	NNN	YNN	13%	20%	83%	0%
LFS → ECI	YNNN	YNNY	YYYN	NNNY	NNNY	NNNY	YNNY	NNNN	YNNN	YNNY	YNNY	YNNY	YNNY	YNNY	NNNY	39%	49%	63%	17%
UNhigh → ECI	NNNN	NNNN	NNNY	NNNN	NNNN	NNNN	YNNY	NNNN	YNNY	YNNY	NNNN	YYYN	NNNY	NNNN	NNNN	21%	23%	38%	23%
UNlow → ECI	NNNN	NNNN	NNNY	NNNN	NNNN	NNNN	YNNY	NNNY	YNNN	YNNY	NNNN	YYYN	NNNY	NNNN	NNNN	18%	23%	27%	27%
GFDI → PCI	YNN	YNN	NNN	YNN	YNN	NNN	NNN	YNN	NNN	YNN	NYN	NNN	YNN	NNN	NNN	20%	20%	0%	33%
APVD → PCI	NNN	NNN	YNN	YNN	YNN	NNN	NNY	NNN	NNN	YNN	YNN	YNN	YNN	NNN	YNN	22%	29%	0%	40%
FCR → PCI	NNN	NNN	NNN	YNN	YNN	NNN	YNN	YNN	YNN	YYY	NYN	NNN	NYN	YNN	NNN	31%	33%	36%	21%
NFDI → PCI	NNN	YNN	YNN	NNN	YNN	YNN	YNN	NNN	NNN	YNN	NNN	NNN	YNN	NNN	YNN	18%	18%	13%	13%
LFS → PCI	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	YNNY	60%	62%	36%	11%
UNhigh → PCI	NNNY	NNNN	NNNN	YNNY	NNNN	NNNN	YNNY	NNNN	NNNN	NNNN	YNNN	NNNN	NNNN	NNNN	YNNN	12%	13%	71%	14%
UNlow → PCI	NNNY	NNNN	NNNN	YNNY	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN	YNNN	NNNN	NNNN	YNNY	YNNY	15%	15%	78%	0%
GFDI → EXH	YYY	YYY	YYY	YYY	NYN	NYN	NYN	YYY	YYY	YYY	YYY	YYY	YYY	YYY	NYN	91%	98%	0%	93%
APVD → EXH	NYN	YYY	YYY	NYN	NNN	YYY	YYY	YYY	YYY	YYY	YYY	YYY	YYY	NNN	NYN	80%	84%	0%	89%
FCR → EXH	NYN	YYY	YYY	NYN	NYN	NNN	YYY	NYN	NNN	NYN	YNN	YYY	YYY	YYY	NNN	67%	67%	43%	20%
NFDI → EXH	YYY	YYY	YNN	NYN	YYY	YYY	YYY	NYN	NYN	NYN	YNN	NYN	YYY	YYY	NYN	78%	82%	97%	0%
LFS → EXH	NYNN	NYNN	NYNN	NNNN	NYNN	NYNN	YNNY	YNNY	YNNY	YNNY	NNNY	NNNY	NNNY	NYNN	NYNN	63%	68%	18%	66%
UNhigh → EXH	YNNY	NYNN	YNNN	YNNY	YNNN	YNNY	YNNY	YNNY	YNNY	YNNY	YNNN	YNNY	YNNY	NNNY	YNNY	62%	63%	73%	8%
UNlow → EXH	YNNY	YNNY	YNNN	YNNY	YNNN	YNNY	YNNY	YNNY	YNNY	YNNY	YNNN	YNNY	YNNY	NNNY	YNNY	52%	60%	87%	6%
GFDI → EXL	YYY	NYN	NYN	YYY	YNN	NNN	YYY	YNN	YNN	NYN	NYN	YNN	NNN	YNN	YYY	58%	84%	100%	0%
APVD → EXL	YYY	YYY	YYY	YYY	YNN	YNN	YYY	YYY	YYY	NYN	NNN	YYY	YYY	YNN	YYY	80%	89%	100%	0%
FCR → EXL	NYN	YYY	NYN	NNN	YYY	YYY	NNN	YNN	YYY	YYY	NYN	NYN	NYN	NYN	YYY	71%	76%	47%	34%
NFDI → EXL	NYN	NYN	YNN	NNN	YNN	YYY	YYY	NYN	YNN	YYY	NNN	NYN	NYN	YNN	NNN	56%	80%	72%	8%
LFS → EXL	YNNN	YNNN	YYYN	YNNN	YYYN	YYYN	YYYN	YNNN	YNNN	YYYN	YNNN	YNNN	YNNN	YNNN	YNNN	77%	82%	54%	7%
UNhigh → EXL	YNNY	YNNY	YNNN	NNNN	YYYN	YYYN	YNNN	YNNN	YNNN	YNNN	YNNN	YNNN	YNNN	YNNY	YNNY	63%	78%	47%	13%
UNlow → EXL	YNNY	YNNN	YNNN	YNNN	YYYN	YYYN	YNNN	YNNN	YNNN	YNNN	YNNN	YNNN	YNNN	YNNY	YNNY	62%	78%	59%	3%

Notes: As per Table E.12 except: As an example of how to read the cells, the first red cell corresponding to 'GFDI' and 'HCI' reads 'NYN'. The 'N' suggests GFDI does not quite Granger cause ECI at the $p < 0.05$ level under a specification with LFS and HCI (but meets the $p < 0.1$ level). The subsequent Ys correspond to evidence of GFDI Granger causing ECI under specifications with HCI and UNhigh and UNlow respectively. That the cell is red indicates both the Ys are negative relationships. The same reading approach applies to the red cell corresponding to 'LFS' and 'HCI'. The 'YNNY' in this cell corresponds to specifications with the FDI measures in the order they appear in the table. That is, evidence of a significant relationship from LFS to ECI is evident in the GFDI and NFDI specifications and it reduces ECI under these models.

Table E.25: FDI and migration measures and industrial upgrading under VAR at first differences/VEC specifications (short-term)

	FDI/ MIG	HCI	EDUA	LIB	RGDP	CAP	INT	HCI+ LIB	HCI+ RGDP	HCI+ CAP	EDUA+ LIB	EDUA+ RGDP	EDUA+ CAP	LIB+ RGDP	LIB+ CAP	Overall	Plus	%pos/ Yes	%neg/ Yes
GFDI → ECI	NNN	NNN	NNN	NNN	NNN	NNN	NNN	YYY	NNN	NNN	N--	NNN	-NN	NNN	NN-	5%	10%	0%	100%
APVD → ECI	NNN	YYN	YYY	NNN	N-N	NNN	YYY	YYY	NNN	NYN	YYY	-YN	NNN	NNN	NNN	30%	41%	0%	62%
FCR → ECI	NNN	NNN	NNN	NNN	NNN	NNN	NNN	-NN	NNN	NNN	NNN	NNN	YYY	NNN	NNN	4%	16%	0%	100%
NFDI → ECI	NNN	NNN	NNN	NNN	NNN	NNN	NNN	NNN	NNN	NNN	N-N	YYN	NNN	NNN	NNN	2%	4%	0%	100%
LFS → ECI	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN	NN-N	NNNN	NNNN	NNNN	N--	-NNN	NNNN	NNNN	0%	10%	N/A	
UNhigh → ECI	NNNN	NNNN	YYNN	NNNN	N-NN	NNNN	YYNN	YYNN	NNNN	NNNN	-NN-	NNNY	NNNY	NNNN	NNNN	11%	24%	40%	20%
UNlow → ECI	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN	YYNN	YYNN	NNNN	NNNN	-NNN	NNNY	NNNY	NNNN	-NNN	14%	30%	33%	17%
GFDI → PCI	Y--	NNN	Y-N	YYN	NNN	YYN	NNN	NNN	NNN	YYN	-YY	NNN	NNN	NNN	YYN	19%	19%	0%	75%
APVD → PCI	Y--	NNN	YYN	Y-N	YN-	YYN	YYN	NNN	NNN	YYN	Y--	NNN	YYN	NNN	NNN	23%	23%	0%	100%
FCR → PCI	NNN	YYN	N--	NNN	YYN	YYN	YYN	NNN	NNN	YYN	N--	NNN	NNN	NNN	NNN	14%	14%	50%	17%
NFDI → PCI	NNN	NNN	YN-	NNN	NNN	NNN	NNY	NNN	NNN	NNN	---	N--	N--	NNN	NNN	5%	5%	50%	50%
LFS → PCI	NNNN	YYNN	YYNN	YYNN	NNNN	YYNN	NNNN	NNNN	NNNN	YYNN	-NY-	YYNY	NNNY	NNNN	NNNN	36%	36%	31%	44%
UNhigh → PCI	-NN	NNNN	N-N	N-NN	NNNN	NNNN	NNNN	NNNN	NNNN	NNNN	Y--	NNN-	NNN-	NNNN	NNNN	6%	6%	100%	0%
UNlow → PCI	-NN	NNNN	NN-	NNNN	N-NN	NNNN	NNNN	NNNN	NNNN	NNNN	Y--	NNN-	NNN-	NNNN	NNNN	6%	6%	100%	0%
GFDI → EXH	YYY	NYN	YYY	Y--	NYN	NNN	NYN	-NN	YYY	NNN	-NN	YYY	YYY	-YY	NNN	43%	53%	0%	89%
APVD → EXH	YYY	NNY	YYY	NNN	NNN	YYY	YYN	YYN	YYN	YYN	NNN	YYY	NNN	N--	NNN	30%	35%	0%	100%
FCR → EXH	YYY	NNN	YYY	-YY	YYY	NNN	YYN	NNN	NNY	YYN	YYY	-NN	-YY	NNY	NNN	42%	42%	56%	6%
NFDI → EXH	YYY	YYY	YYY	YYY	YYY	YYY	YYY	YYY	YYY	YYY	-YY	NNN	NNY	NNY	YYY	57%	64%	80%	0%
LFS → EXH	YYNN	YYNY	YYNN	NY-Y	YYYY	NNNY	YYNY	-YYNN	NNNY	NNNY	-YN-	NN-Y	NN-N	-NNN	NNNN	38%	42%	15%	65%
UNhigh → EXH	YYNN	YYNY	YYNN	-NNN	YYNN	YYNN	YYNY	YYNN	NNNY	NNNY	NNNN	NNNN	YYYN	N-NN	NNNY	29%	33%	59%	24%
UNlow → EXH	NNNY	YYNY	YYNN	-NNN	NNNN	YYNN	NNNY	YYNY	NNNY	NNNY	NNNN	NNNN	YYNN	N-NN	NNNY	24%	31%	64%	29%
GFDI → EXL	NNN	NNN	NNN	NNN	NNN	NNN	NNN	NNN	NNN	NNN	YYY	N--	NNN	NNN	NNN	5%	28%	100%	0%
APVD → EXL	YYN	YYN	YYN	YYY	YYN	YYN	YYY	YYY	YYY	YYY	YYY	YYY	YYY	NNN	YYN	60%	60%	96%	0%
FCR → EXL	YYY	YYN	YYN	YYY	YYY	YYY	NNN	YYY	YYY	YYN	YYY	YYY	YYY	YYY	YYY	67%	78%	47%	30%
NFDI → EXL	YYY	YYN	NNN	YYY	YYY	NNN	NNN	NNN	NNN	YYN	YYY	YYN	NNY	YYY	YYN	36%	53%	94%	0%
LFS → EXL	YYNN	YYNN	YYNY	YYNN	YYYY	YYNN	YYNN	YYNN	YYNN	YYNN	YYYY	NNNY	YYYY	YYNN	YYNN	60%	70%	56%	6%
UNhigh → EXL	YYNN	YYNN	NNNN	YYNY	YYYY	YYYY	YYNN	YYNN	NNNN	YYNN	YYNN	-NNN	YYNN	NNNY	YYNY	44%	63%	58%	4%
UNlow → EXL	YYNN	YYNN	NNNN	YYNY	NNNY	YYYY	YYNN	YYNN	NNNN	YYNY	NNNN	-NNN	YYNN	NNNY	YYNY	39%	54%	74%	0%

Notes: As per Table E.24. A dash represents a one-lag model for which short-term results are unavailable.

Table E.26: FDI and migration measures and industrial upgrading under VEC specifications (long-term)

	FM	HCI	EDU	LIB	RGDP	CAP	INT	FMH	HL	HR	HC	FME	EL	ER	EC	FML	LR	LC	FMR	FMC	FMI	FMHL	FMHR	FMHC	FHEL	FHER	FMEC	FMLR	FMLC	+ve	-ve	insig	coin
GFDI → ECI	PNPNP	NN	N		NP			NNNN	NN	N		NNN		N		NNN			PIN	N	PP	P	PP	IN	II		NN	I	NP	27%	63%	10%	48
APVD → ECI	NNPN	NN	N		N			NNNI	PN	I	NI	NNNN		IN	NN	NNPN			NINPN	INNN	PP		NN	P	NII		N			13%	70%	17%	53
FCR → ECI	PPPPP	NN	NN		P	N		NNNN		NI		NNNN		N	II	PPPP	P	N	NNPN	PPNNPP	N	PN	P		PP	P	N			39%	56%	5%	57
NFDI → ECI	IIIPPP	P	NI	I	I	P		PN		N		IIIPPP		PP	PP	P		P	PPPIP	PPP	PP	P			IP		P			70%	7%	23%	43
LFS → ECI	IINPPPNP	II	IPP	P	NP	NP		NIPPIN	NN	IN		PIIP		NP		PPNPP		N	PNNNP	NPP	PP	NN	NI	NN	N	N	INI	N	N	38%	43%	19%	69
UNhigh → ECI	PINNP	NI	N		NP			PNPPPI	NN	PI	P	PIPPIPP		PP	PI	PPPN	P	N	IIPINPI	NIIIPP	PPP	I	N	P	NPI		P			54%	23%	23%	69
UNlow → ECI	NNNIN	N	INI		N			PPPIP	NN	I	I	PPIPPPP		PP	PI	PPPN		N	IINNII	NPIPPN	PP	I	PN	P	NPI		P		I	44%	27%	29%	63
GFDI → PCI	NNNNN	P	NNP		N	N		PPNNN		IN	NP	NNNN	NN	N	N	NNPIN		N	NNNN	NNNN	N	NN	N			PN	PP	NN	PP	23%	70%	7%	71
APVD → PCI	NNNNPN	I		P	P	II		PNPPN	P	NP	III	PNNNPP	N	N	NP	PPNN			NNNN	PNNNN	NN	PP			II			II	NP	34%	51%	15%	67
FCR → PCI	NNNP	N			NP		P	PPPP	P	PP	PII	NPPNNII	N	PP	I	PNNN	P	P	PPPPP	NINPPN		NP	P		PP		NN			56%	32%	11%	62
NFDI → PCI	PNP		I	I			N	NIN	I	P		NIIPPN	I	I	PN	II			IPN	IPNN	N			P	III	PP			P	28%	33%	38%	39
LFS → PCI	PPPIPPP	PIN	PN	PP	NI	P	PP	NIPPP	PN	IN	PIP	IPNIPHIP	NN	PP	IN	PIPPP	P	NP	PIPNP	NNINP	PP	PP	P	I				N	PN	55%	26%	19%	112
UNhigh → PCI	PPPPP		N		P	I		NNNNI		NI	III	NPIIN	N	I	NN	PNP			IINII	IPIININ	II	PIN	N		NN	IN	NP	PI	II	23%	38%	39%	61
UNlow → PCI	PIIIP		I		I	I		NNNP	P	NN	PII	NNPIN	N	I	NN	PIPP			IINNII	IPIPNIN	I	PI			NN	IN	NP	PI	II	25%	35%	40%	65

Notes: As per Table E.24.