

Kiribati economic survey: Oceans of opportunity

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Abstract

Kiribati is one of the poorest and most remote Pacific nations but has the largest productive tuna fishery. The Vessel Day Scheme implemented in 2012 led to unprecedented growth in fishing revenue between 2012 and 2015, with similarly unprecedented expansion of government expenditure from 2016 to 2019. For the first time in its history, the Kiribati Government, rather than any foreign development partner, is the single largest financier of public investment. Whereas the general economy and government finances have benefited greatly from the fisheries boom, questions have been raised around recent government spending and how long there will be the fiscal space to support such discretionary decisions in the context of rapidly increasing operating costs. Fishing revenue alone will not be enough to fundamentally shift the development trajectory of the Kiribati people. A new period of reform is needed.

1 | INTRODUCTION

With 110,136 people spread across 33 atolls and 3.5 million square kilometres of ocean, Kiribati faces enormous development challenges. Kiribati is categorised as a low-income country by the World Bank and as a least developed country by the United Nations. It faces major environmental challenges including climate change, as well as acute public health issues from high

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rates of communicable and non-communicable diseases.¹ The main island of South Tarawa is densely populated and sanitation levels are low.

The Kiribati economy over the past decade can be characterised by two distinct periods: before and after the implementation of the Vessel Day Scheme (VDS) in 2012. The Parties to the Nauru Agreement (PNA) implemented the VDS to limit fishing effort in the combined exclusive economic zones of the eight member nations.² The VDS targets the total number of days that can be fished and replaced the Palau Arrangement, which had attempted to limit fishing effort by controlling the total number of purse seine vessels in the region (Aqorau, 2009). A significant increase in revenues over a short period gave the traditionally austere Kiribati Government an exceptional degree of fiscal freedom.

This survey reviews the recent economic and fiscal performance of Kiribati in the context of the rapid increase in government fishing revenue: in particular, Kiribati's fiscal policy settings (Section 2) and fish stock management (Section 3). Section 4 summarises economic performance in relation to gross domestic product (GDP), employment, trade, and inflation. Section 5 analyses major policy initiatives and debates, and Section 6 concludes. Time is running out for the government to engage in independent investment decisions using its own income, and priorities need to be reviewed. Rapid revenue increases have allowed the government to delay the initiation of new reforms; however, in light of stable fishing revenues going forward, the case for further reform is strong.

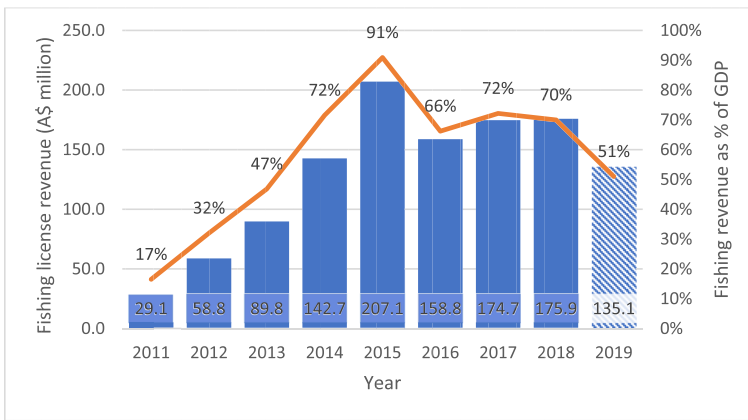
2 | FISCAL TRENDS AND POLICY

In 2011, Kiribati's fishing license revenue was just \$29.1 million (17% of GDP), but by 2015, revenue had risen to \$207.1 million (91% of GDP; Figure 1). Over the same period, general taxes increased by \$17.5 million and other revenues by \$8.7 million, despite the successful rollout of a value-added tax in 2014. Overall, fisheries revenue accounted for 85% of total revenue growth between 2011 and 2018.

The improved fishing revenue was responsible for a significant turnaround in national finances. Prior to 2012, the Budget was regularly in deficit, and there was an ongoing reliance on drawdowns on Kiribati's sovereign wealth fund, the Revenue Equalisation Revenue Fund or RERF. However, from 2013, there were significant surpluses and contributions to the RERF. Examination of the government revenue estimates between 2012 and 2015 reveals a strong conservative bias in fishing license forecasts, with actual revenue exceeding estimates by \$318.4 million over this period. By contrast, budget documents estimated that the net financing need was \$91.8 million in deficits across the four years. As a result, there was a significant surplus of cash flowing onto the government balance sheet. Non-RERF cash balances increased from \$11.3 million in January 2013 to an estimated \$173.5 million by the end of 2018 (Ministry of Finance and Economic Development [MFED], 2018), and the RERF balance grew from \$613.9 million to \$994.4 million over that same period—just short of the government's \$1 billion target. State-owned enterprise commercial debts with ANZ were also eliminated within this timeframe, and the government invested \$10 million in a land purchase in Fiji.

¹Kiribati has the fourth highest levels of both tuberculosis and diabetes prevalence in the world (Burkot, 2015, April 23).

²The eight member states of the PNA are Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands, and Tuvalu.

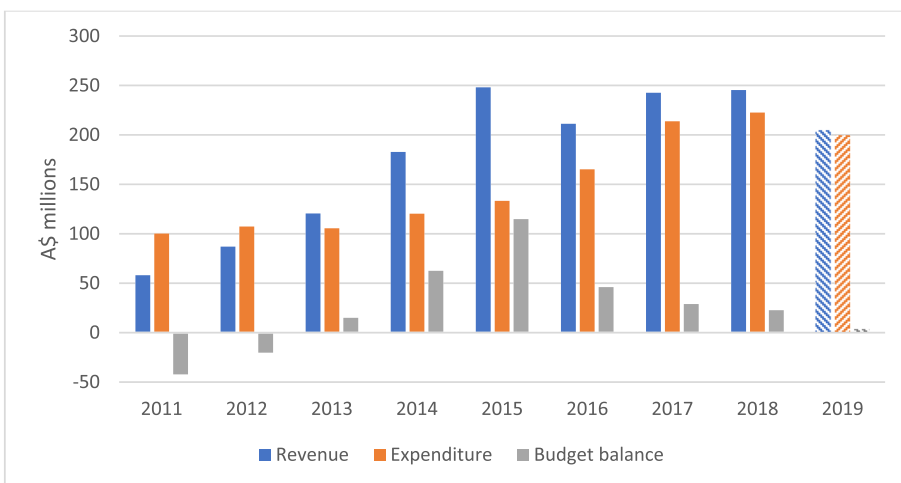


Source: Kiribati Ministry of Fisheries and Marine Resource Development and Kiribati Ministry of Finance and Economic Development, Fishing License Revenues in Kiribati, 2017 Report (2018); for 2019, projections are from the Kiribati 2019 Budget; GDP unavailable for 2018 and 2019, with International Monetary Fund estimates used

FIGURE 1 Kiribati fishing revenue as a proportion of gross domestic product (GDP)

The accumulation of significant cash holdings and dramatically higher revenues resulted in rapid increases in government expenditure from 2015 onwards. With no new revenue since the peak of 2015, this expenditure growth served to significantly reduce the budget balance from its high of \$120.1 million in 2015 (53% of GDP) to an estimated \$22.7 million by 2018 (9% of estimated GDP; Figure 2).

Total government expenditure increased from \$107.3 million in 2012 to \$222.6 million by 2018, with significant growth in 2016 and 2017 in particular (24% and 29% increases, respectively). Including donor projects, total public expenditure was equivalent to 119% of estimated GDP by 2017, funded predominantly by fishing licenses (72% of GDP) and development



Source: Kiribati Ministry of Finance and Economic Development and Kiribati Audit Office; for 2019, projections are from the Kiribati 2019 Budget

FIGURE 2 Kiribati Government fiscal aggregates, 2011–2019

partners (31% of GDP). The International Monetary Fund (IMF) estimated that total public spending reached 143% of GDP in 2018 due to the commencement of development partner projects and continued government spending (IMF, 2018, p. 23).

Whereas every major spending category has experienced increases, some stand out. The government doubled its copra subsidy from \$1/kg to \$2/kg in 2016, fulfilling an election promise made during the 2015 campaign. This increased the cost of the scheme from almost \$8 million in 2015 to around \$32 million in 2017. The increase to the per kilogram price guarantee is the single largest spending decision by the government in the post-VDS period, costing \$86.1 million over three years (2016–2018). Because of its ongoing nature, the total cost of this policy decision (which is discussed further in Section 5.1) will continue to grow.

Growth in public sector wages was relatively restrained from 2012 to 2016, at a modest 2.7% on average. However, 2017 saw a 3% expansion in the number of public servants, and the wage bill increased by 6.2%. Moreover, the 2018 Budget increased public servant salaries by 30% across the board, significantly raising personnel expenses. This added around \$18 million to existing public sector wages (7.4% of 2017 GDP) and was publicly signalled to be the initial step in the government's promise during the 2015 election to double public sector salaries. The 2019 Budget did not continue the public sector wage rises but again saw the public service expand by an estimated 5.8% with total salaries and wages rising by 5.4%.

Together, the public sector salary increases and copra subsidy have grown cash incomes among public servants and copra cutters by around \$46 million a year. Whereas this has likely driven retail growth and consumption since 2016, these decisions are not easily unwound and have made it more difficult for future governments to find fiscal space to make discretionary spending decisions.

The current government has also engaged in large capital works for the first time. Previously, most major capital works were funded almost exclusively by development partners. However, with the accumulation of significant reserves and large fiscal surpluses, the government committed significant finances in 2016 and 2017 to ensure the completion of the Kiribati Road Rehabilitation Project (KRRP) in Tarawa and upgrades to the airports in Tarawa and Kiritimati island via the Kiribati Aviation Investment Program (KAIP).

KRRP, which commenced in 2011, is the single largest project ever undertaken in Kiribati at a final cost of \$98.8 million (MFED, 2018b). It involved the resealing of the main road surfaces on South Tarawa, most of which were initially sealed by the Japanese in the 1970s but not maintained. The project was co-financed by the government (\$19.6 million), the World Bank (\$30.2 million), the Asian Development Bank (\$26.2 million), and Australia (\$22.8 million),³ with the World Bank taking the lead on project implementation. The KRRP has now rehabilitated over 32 km of the main road in South Tarawa, upgraded 10 km of feeder roads, and added 57 km of footpaths and pavement markings. The upgraded roads have resulted in improved drainage and less flooding and damage from heavy rains and dramatically reduced travel times. Street lighting has been installed and signage and speed humps have been added to town areas. The incidence of upper-respiratory illness is expected to fall, and maintenance costs for vehicles are expected to decline. The project also had several side benefits: It

³It should be noted that the World Bank figures differ slightly from the Kiribati Government figures. The World Bank Independent Evaluation report states the total project cost at US\$75.1 million, with US\$26 million from the International Development Agency, US\$12 million from ADB loans, US\$11.4 million in ADB grants, and US\$12.8 million from Australia/Pacific Regional Infrastructure Facility. The Government of Kiribati is noted in the report to have contributed US\$6.8 million to direct project costs (World Bank, 2018b, p. 3).

complemented the rehabilitation of the Betio causeway⁴ in linking all the islands of South Tarawa with all-weather roads; it initiated the first example of contracted maintenance services (road and drainage cleaning); and it inspired the creation of a dedicated maintenance fund to meet future road and other infrastructure operational and maintenance costs (\$2 million a year in the 2019 Budget).

The KAIP project was also managed by the World Bank and again involved a significant government contribution. Both international airports (Bonriki and Cassidy) required new surfaces and terminals capable of handling larger, more modern aircraft in compliance with international safety standards. Predominantly funded by the World Bank, \$18.3 million of the final \$70.1 million cost was met by the Government of Kiribati (including the settlement of a dispute with the primary contractor). Whereas the number of flights into both Bonriki and Cassidy are yet to significantly increase, the runways, terminals, and ground equipment are now largely compliant with international standards and can accommodate additional flight capacity.

Other notable projects budgeted by the government include building a new national sports stadium in Bairiki (currently budgeted at \$6 million) and sealing all roads in the outer islands (Phase I is budgeted at \$30 million). The government has also committed significant funds to the procurement of heavy equipment and moveable capital, including a new landing craft in 2017 (\$3.4 million), a host of heavy machinery in 2017 (\$2.9 million),⁵ and a new Dash 8 for Air Kiribati Limited in 2018 (\$5.7 million). As part of its push to boost tourist numbers (analysed in Section 5.3), the government has also committed to the purchase of two Embraer 190 jets in 2019 (\$20.8 million as the initial contract payment; with a total estimated cost of US\$74 million for the capital purchase alone).

Looking forward, the fishing license revenue estimate for 2019 is still a conservative \$130 million (down from an average of \$163.9 million over 2014–2017), resulting in a fall in the operational surplus from \$53.3 million in 2018 to an estimated \$24.5 million in the 2019 Budget. Only \$16 million was appropriated for the copra subsidy in 2019, down from \$31.1 million in 2018, due to a poor harvest and logistical issues leaving a surplus of cash in the Development Fund from the previous year.⁶ The copra subsidy is expected to return to \$25–\$29 million across the forward estimates, reducing the operating surplus to \$12.2 million by 2022. In this context, current government estimates forecast \$72.8 million in operational surpluses between 2019 and 2022, with \$48.5 million of these surpluses already committed to existing capital projects.

However, there is also a conservative bias on expenditure estimates. Within the remaining \$24.3 million of forecast fiscal surpluses, the government must fund the remaining capital costs for the Embraer purchase (an estimated \$54 million of additional funding), cater for cost overruns on the construction of the national stadium (an estimated \$4 million of additional funding), as well as cater for annual policy decisions and any required subsidisation of Embraer operations. The 2019 Budget forecast operational expenses to grow at only 2.1%, well below the average increase of 10.3% over the 2012–2018 period.

As operational expenses rise, the Government of Kiribati will be unable to continue to use operational surpluses to fund its capital program after 2022 and will likely have to revert to using cash reserves, as it did prior to 2012 and the VDS. As at the end of 2018, these cash

⁴An estimated \$44.3 million project completed in 2019 and funded by a Japanese grant.

⁵It should be noted that this purchase of the used machinery from the KRRP was initially funded by the government and reimbursed by Taiwan over a year later—essentially making the Taiwan grant funds equivalent to the budget support arrangements with other development partners.

⁶Unlike regular appropriations, the Development Fund does not require reappropriation to draw down previously approved funds.

reserves are plentiful, at an estimated \$173.4 million (71.6% of 2017 GDP), but their significant depletion would be risky.

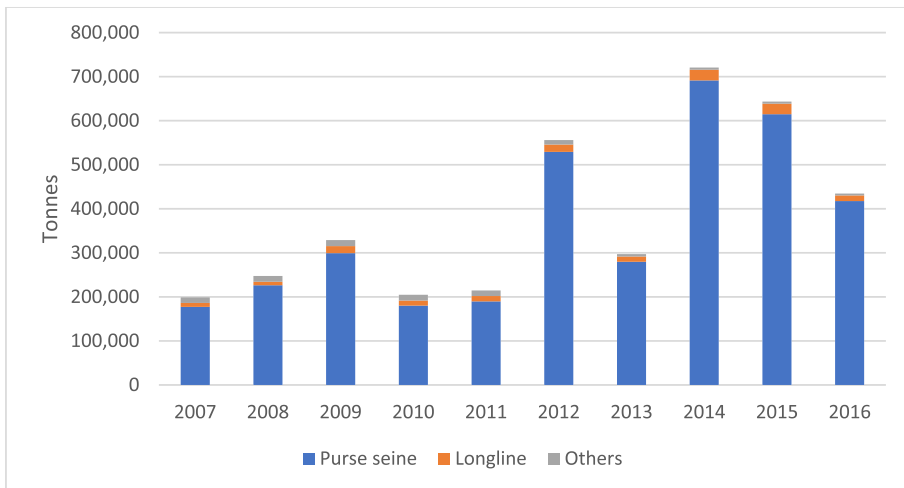
3 | FISH STOCK MANAGEMENT

The continued success of Kiribati's fiscal position relies on the sustainability of the fishery and the ability of the government to extract rents from this crucial resource.

The Western and Central Pacific Fishery (WCPF) accounts for around 52% of the world's production of tuna (ISSF, 2019, p. 35). In 2016, Kiribati waters were the most productive⁷ tuna fishing zone among the Forum Fisheries Agency (FFA) nations⁸ (which together control the waters of the WCPF) for the third year in a row. Kiribati accounted for 28.4% of all FFA tuna catch in 2016 and 45.0% in 2015.

Purse seine fishing, which targets skipjack tuna, is by far the largest contributor to total volume accounting for 96% of the total (Figure 3). As the main target species of the purse seine fishery, volumes of skipjack continued to be high in 2016 at 340,018 tonnes, even though this is a 35% fall from the 525,372 tonnes in 2015 and well below the record 573,944 tonnes in 2014. Skipjack represents 78.2% of all catch. Other species include yellowfin (16.3% of the total), bigeye tuna (5.9% of the total), and albacore (0.6% of the total).

With volumes falling dramatically since 2014, Kiribati has reduced its overall pressure on the regional fishery. Historically, 2014 was the highest year on record for FFA waters (1.73 million tonnes), with average catch for 2015 and 2016 (1.48 million tonnes) being just below the



Source: Forum Fisheries Agency (FFA)

FIGURE 3 Kiribati fisheries, total catch by gear type, 2007–2016

⁷“Productive”, as used here, is defined as the total catch by weight from the EEZ of the nations reported in the FFA catch database.

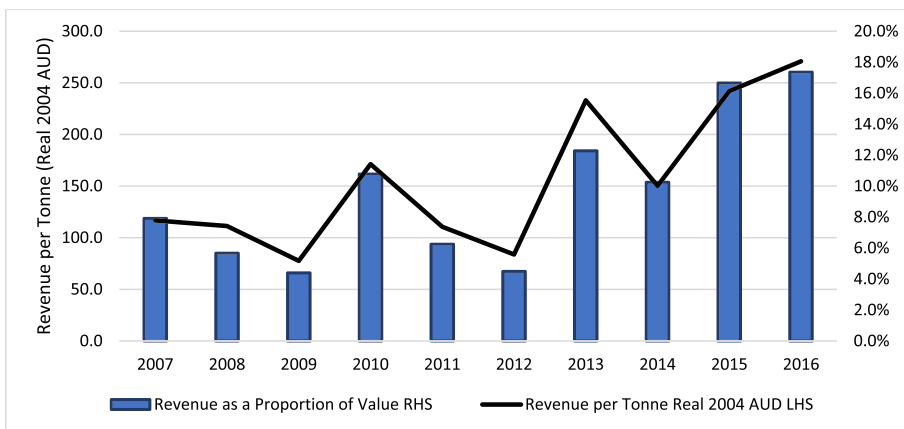
⁸The 17 member states of the FFA are Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu.

five-year average prior to 2014 (1.50 million tonnes). Kiribati's relatively lower share of the total FFA catch in 2016 (28.4% compared with 45.0% in 2014) was due to both a decline in total Kiribati-based catch and a proportionally larger increase in the total take from other FFA nations. Without further information, it is difficult to discern whether this fall in Kiribati's relative contribution is a seasonal phenomenon or a return to the pre-2014 five-year average of 21.2% of the FFA total.

The implementation of the VDS by the PNA has significantly improved revenues as a percentage of the total catch value. Together with closing the two high-seas pockets⁹ and limiting fish aggregating devices, the PNA have acted collectively to significantly boost the revenue of the respective governments.¹⁰ In 2011, a fishing day in the WCPF cost a benchmark rate of US \$5,000 for each purse seine vessel, but this increased to US\$6,000 per day in 2013 and US\$8,000 in 2015.

For Kiribati, in the five years prior to 2012, revenue as a proportion of the total value of the catch (revenue capture) was 7%. Following the full implementation of the VDS, this rose to a five-year average of 12.2%, with 2013–2016 having an average of 14.1% (Figure 4). In 2016, 17.4% of the total catch value being captured by the government was in the form of fishing revenue, the highest rate on record. Whereas the total catch has fallen from the highs of 2014, the dramatic improvement in revenue capture has driven a step change in total revenue for Kiribati. For example, despite falling volumes in 2015, the higher rate of revenue capture propelled fishing revenue to a record high.

Whereas the ability of Kiribati to better capture revenue should be welcomed, the fall in fishing volumes highlights Kiribati's key vulnerability. If Kiribati returns to catch rates approaching the pre-2014 five-year average (a 35.7% decline in total catch from 2016), fishing license revenue would fall to around \$100 million.¹¹ Whereas this figure is well above the pre-



Source: MFED, FMFRD and FFA data

FIGURE 4 Revenues as proportion of value and per tonne, Kiribati, 2007–2016

⁹High-seas pockets are areas of international water that are completely encircled by PNA member countries. The PNA states that vessels fishing within these areas are excluded from fishing in PNA nations.

¹⁰See Yeeting, Weikard, Bailey, Ram-Bidesi, and Bush (2018) for a summary of the VDS governance and pricing arrangements.

¹¹Assuming that no changes in the Australian–US dollar exchange rate and that effort follows the same path as total volumes.

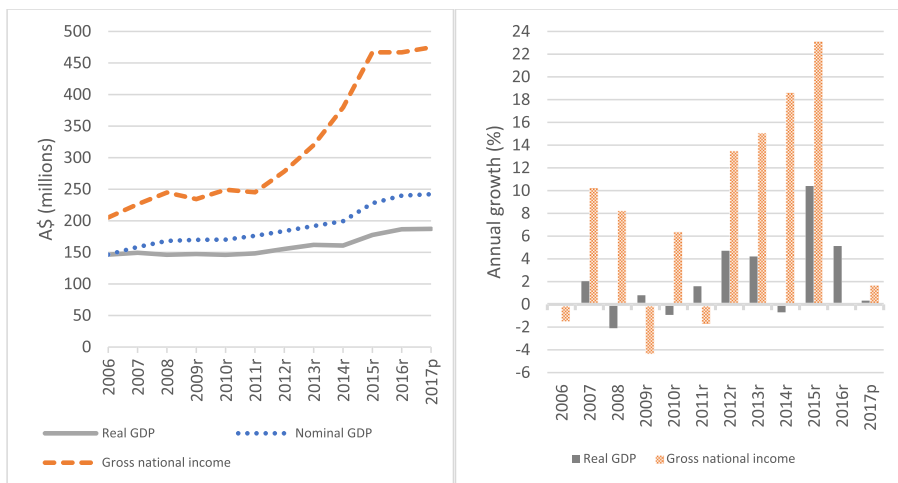
VDS level, it is still below the government's conservative revenue estimate and risks reducing government revenue by around \$120 million across the forward estimates. This would require the government to use cash reserves to meet all planned capital expenditures as well as 6%–9% of operational costs each year. Even if revenue capture was further improved to 20% of the total catch value, it would only result in an extra \$15 million in revenue per year, which would still require almost all government capital spending across the forward estimates to be funded from cash reserves. It is clear then that whereas the present fiscal position is healthy, the future revenue prospects are a key source of fiscal risk.

4 | RECENT ECONOMIC TRENDS

4.1 | GDP growth

In the five years leading up to the introduction of the VDS (2006 to 2011), Kiribati experienced no economic growth, with the economy shrinking by 0.7% in real terms over this period. In contrast, between 2012 and 2017, the economy experienced 20.5% real growth, growing 10.4% in 2015 alone (Figure 5). The largest portion of post-2012 GDP growth came from agriculture and fisheries (contributing 6.5 percentage points, or 32% to total GDP growth) with these gains being strongly supported by the dramatic increase in the copra subsidy from 2016 onwards. The next largest contributors over the five years were wholesale and retail trade (contributing 5.0 percentage points), government consumption and administration (3.5 percentage points), and financial intermediation (3.1 percentage points).

These trends in real GDP mask a significant contribution from government in nominal terms, with government consumption and administration contributing a much larger 8.4 percentage points to GDP growth since 2012 and agriculture and fisheries contributing 16.2 percentage points. The relative contribution of wholesale and retail trade remains roughly the same, at a 5.2 percentage point contribution to nominal growth. These large variances



Source: Kiribati National Statistics Office (KNSO); r = revision, p = provisional

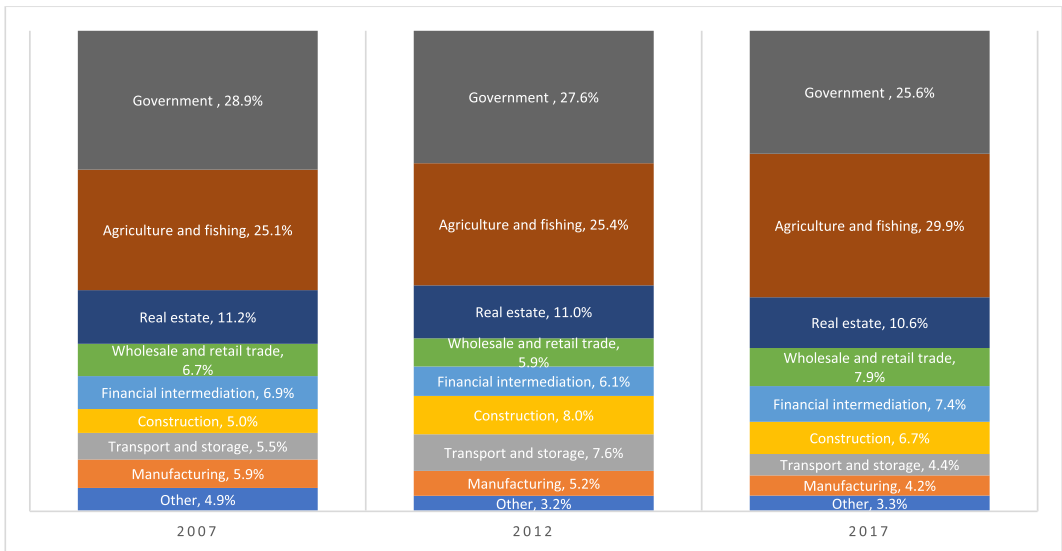
FIGURE 5 Kiribati GDP, Real GDP (2006 prices), GNI, and growth rates, 2006–2017

in the implied deflators are not surprising in the agricultural sector, where the impact of the copra scheme on GDP would be significantly lower if 2006 prices were maintained. The reason for the dramatic increase in the implied government consumption deflator is less clear, as the government consumption of services would have faced similar price changes to wholesale and retail trade, the latter of which was consistent with inflation data (that showed no price increases).

Gross national income (GNI) increased 94% between 2011 and 2017 due to the fourfold increase in fishing license revenue (69% of the total GNI growth) being factored directly into the estimate. Other overseas income also increased strongly, with a 42% increase in net salaries from abroad, but this only contributed 2% to overall GNI growth due to a much lower base. The increasing gap between GNI and GDP suggests that only a portion of the new government revenue made its way into local production despite the large increase in both government and donor spending. Indeed, imports almost doubled between 2011 and 2017, with dramatic increases in capital and manufactured goods being the largest contributors (see Section 4.3).

Structurally, the Kiribati economy is still heavily dependent on government consumption spending (25.6% of GDP), although this has fallen slightly as the economy has grown faster than the increases in government operational expenditure over the past decade. Agriculture and fishing (29.9% of GDP) is the largest contributor to the economy but is heavily supported by the copra price scheme (13.3% of GDP). The total growth in agriculture and fishing between 2012 and 2017 was \$29.8 million, with \$24.5 million of this growth directly attributable to the copra price increase (Figure 6).

Real estate investment (10.6% of GDP) is the third-largest sector of the economy, and although it grew by \$7.0 million since 2012, its size declined relative to GDP overall. Wholesale and retail trade only represent 7.9% of the economy despite growing \$9.5 million since 2012.



Source: KNSO

FIGURE 6 Contributions to GDP (production method), Kiribati, 2007–2017

One puzzling aspect of the GDP figures is the contribution of government and donor capital investments, which have been substantial. The IMF estimates that development spending (which blends government capital and development partner capital and non-capital spending) was 46% of GDP in 2016 and 31% in 2017. There is no official measure of public fixed capital formation, but the official estimate of total capital investment in 2017 was 6.7% of GDP (\$16.7 million), a fall from 9.1% of GDP in 2016 (\$21.7 million). Whereas the IMF definition is not exclusively capital investment, the reported capital investment figure in the national accounts seems low against the backdrop of KRRP, KAIP, and the sanitation project¹² (an average of \$27 million over eight years). The import leakage from large projects may go some way to explaining this puzzle, with the vast majority of materials and expertise being imported. Total GDP figures for construction over the 2012–2017 period amount to \$119.8 million with imports of capital and construction materials adding up to \$134.3 million—but the three projects mentioned were far from the only construction activity taking place. Without a detailed breakdown on the national accounting treatment of these projects, it is difficult to conclude the final net impacts of these large capital investments. It may be the case that the mismatch between financial figures and official statistics is largely to imported services costs, which are not well represented in official accounts.

4.2 | Employment

Unemployment was estimated by the 2015 census to be 37.8%, with 43.5% for females. This was an increase from the 30.9% unemployment rate measured in the 2010 census, with labour force growth of 16.0% far outstripping the 3.2% growth in employment. Labour force growth was driven by a 3.8 percentage point increase in labour force participation and 8.8% growth in working-age population across the five years.

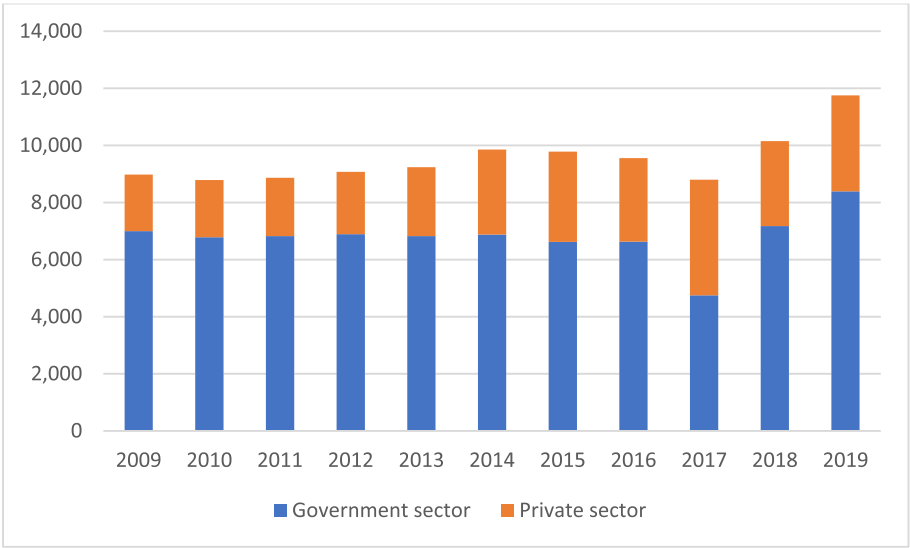
The only other measure of labour market performance is the Kiribati Provident Fund (KPF) member numbers, which are reported annually (Figure 7).

Between 2015 and 2019, KPF-derived jobs growth has been 20.1%, compared with 5.5% in Kiribati National Statistics Office-estimated population growth over that period—a positive sign. However, women's labour force participation has showed continuing growth over the past decade and was still 20 percentage points lower than men in 2015 (demonstrating further room to grow). The KPF data may also be a poor proxy for overall jobs growth, with the 2010 to 2015 employment growth (as measured by the Census) being only 3.2% compared with the KPF growth of 11.3%. Overall, unemployment may have fallen since 2015, but it is difficult to be sure, and it may not be sustained.

4.3 | Trade

Kiribati has an extremely low level of economic diversity. It has little in the way of fertile land and is too remote for integrated industry value chains, so local goods production tends to centre

¹²The South Tarawa Sanitation Improvement Sector Project is a US\$26.13 million project funded by the ADB, Australia, The Multi-Donor Trust Fund (Water Financing Partnership), and the Government of Kiribati (Asian Development Bank, 2016).

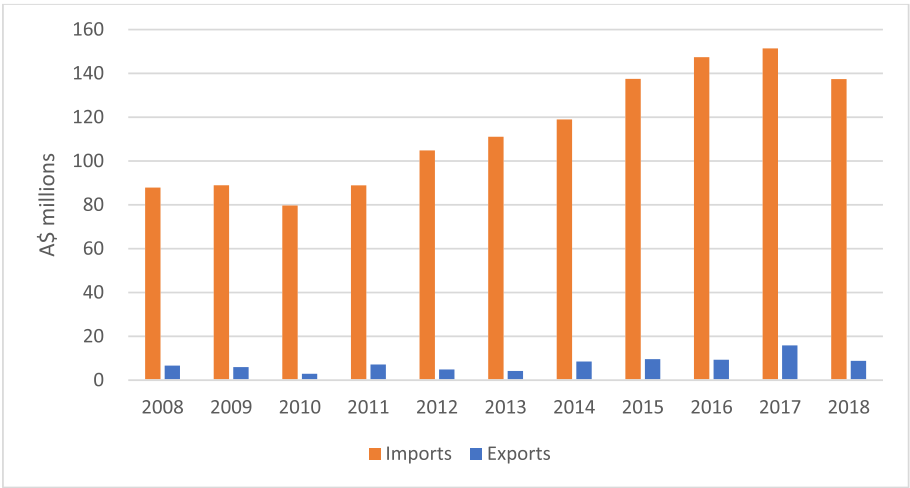


Source: Kiribati Provident Fund

FIGURE 7 Average Kiribati Provident Fund members per year

on traditional products, with most consumption and capital being imported. As is typical with many small island economies, goods imports far outweigh goods exports with this gap widening due to growing domestic demand from 2012 onwards (Figure 8). In 2011, the goods deficit was \$80.6 million. It grew to \$133.3 million by 2016 and was \$126.4 million in 2018.

The \$137.4 million of goods imported in 2018 included almost every good in the consumption basket apart from fish. Food products dominate, with collectively 40.4% of total imports (\$45.5 million). Around one-fifth (21.9%) of this category is beverages and tobacco (\$10.0



Source: KNSO

FIGURE 8 Kiribati goods trade, 2008–2018

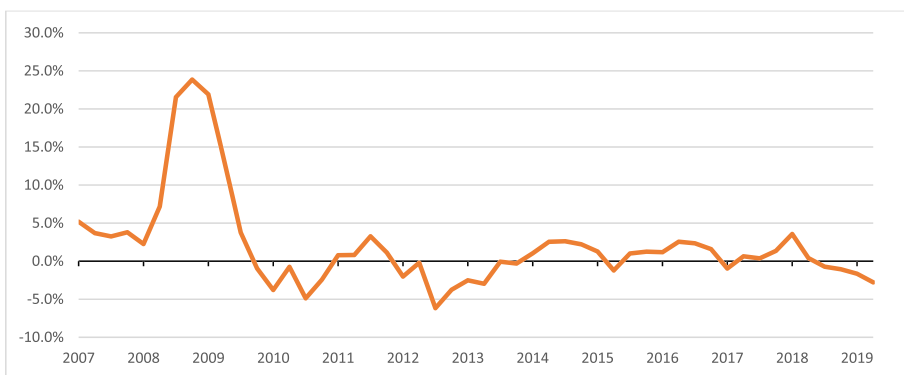
million). Non-food imports are predominantly manufactured goods (19.0%; \$26.1 million), machinery and transport equipment (18.5%; \$25.5 million), and fuel (14.2%; \$19.5 million), with oils, fats, and other chemicals making up the remaining 5.3% (\$7.3 million).

Data from 2018 show that total exports of \$8.8 million comprised just three products: \$4.7 million of fish, \$3.2 million of crude coconut oil, and \$0.9 million of unprocessed copra. Kiribati does not have a consistent export market: official statistics show the top destination market for Kiribati goods has changed five times in the past ten years, with these destination markets showing an average of four of these ten years having no export activity at all.¹³ This is explained by thin export markets, the homogenous nature of the key export products, and likely poor business-to-business links.

4.4 | Inflation

Perhaps surprisingly, given the rapid increase in public expenditure, inflation has been relatively subdued. Following the oil and rice price shocks of 2008–2009, retail price index (RPI) inflation has averaged -0.1% in the past ten years (Figure 9). The June 2019 index is only 0.7% higher than the 2010 level, raising considerable doubts about rising cost of living declarations by both sides of politics and the pressure on public sector wages. If the 2008–2009 inflationary spike is included, average annual inflation across the entire 2007–2019 period is 1.7% —well below the 2.5% average for the Australian economy over the same period (Australia is used as the comparison point as Kiribati uses the Australian currency). A possible reason for the muted inflation response to increased public spending may be the heavy dependence on imported goods.

It is notable that the implementation of a 10% value-added tax in 2014 has had no identifiable inflationary impact. Although some import duties were phased out at the same time, the



Source: KNSO

FIGURE 9 Kiribati RPI average annual inflation, 2007–2019 (June)

¹³Top destination markets across the period included Hong Kong (2008–09), Taiwan (2010–12), “Other” (2013–15), Malaysia (2016–17), and Japan (2018). Each of these destinations received no Kiribati products in at least two years over the past decade.

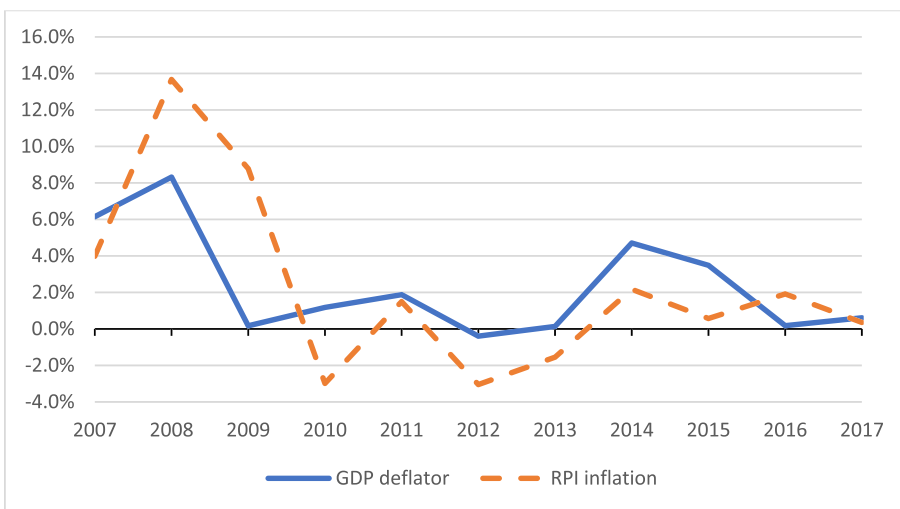
value-added tax was much broader in its coverage and improved net revenue, suggesting it should have had at least some impact on general prices the following year.

It should be noted here that the RPI basket has not been updated since the previous Household Income and Expenditure Survey in 2005–2006 and is now out of date. For example, internet and mobile costs do not appear in the current RPI, but market penetration has increased from 12% in 2012 to an estimated 45% in 2019 (World Bank, 2019, p. 3).

Using the GDP deflator as an alternative price measure, Figure 10 shows a similar trend of low price growth since 2009, with the exceptions of small increases in 2014 and 2015. Comparing the two series, the GDP deflator only has one period of negative growth (2012), whereas RPI inflation is negative in 2010, 2012, and 2013 (and later, in 2019). Both the deflator and RPI are consistent with a low price-growth environment over the past decade, despite the high production and retail prices regularly reported in Tarawa and the other islands.

5 | POLICY AND REFORMS

The Tobwaan Kiribati Party was voted into power in the December 2015 election, marking a significant change in direction from the outgoing president, Anote Tong, who had served the maximum three-term limit. Formed from a merger of the Maurin Kiribati Party and the United Coalition Party, Tobwaan Kiribati Party nominated Taneti Mamau as their presidential candidate in 2016. The incoming government's election manifesto (*Te Motinnano*) outlined 140 targets across 20 areas but notably excludes any mention of climate change (a key policy area of the Anote government, particularly on the world stage). The comfortable victory for Mamau during the presidential race created a strong political mandate for the new government. Soon after coming to power, the Mamau government released the 2016–2019 Kiribati Development Plan (KDP), the successor to the previous 2012–2015 KDP. Whereas there is some overlap between the KDP and Motinnano, there are also important differences. A notable example is



Source: KNSO

FIGURE 10 Kiribati annual GDP deflator, 2007–2017

the doubling of the copra price to \$2/kg, which does not appear in the KDP. In 2018, the Mamau government released the *Kiribati 20-year Vision* (KV20), which was more aligned to the key themes of the Motinnano. The KV20 includes more references to climate change and climate resilience (as cross-cutting issues) and could be considered the *de facto* KDP going forward. It appears to have strongly guided government decision-making in its recent Budget.

This section will discuss some of the major policy reforms over the past few years, including key actions taken by the current government in light of the significant surge in fishing revenue. The focus is on the copra subsidy, public investment, and tourism.

5.1 | Copra

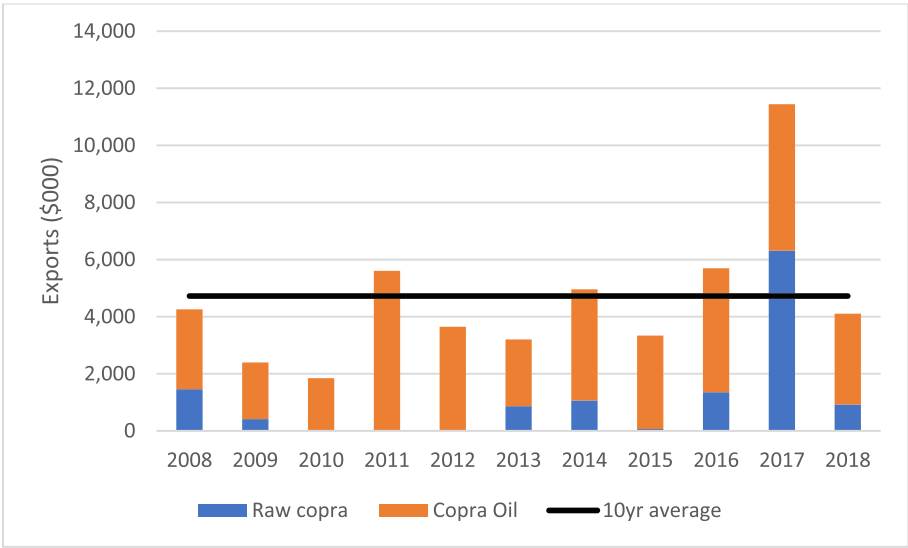
The Mamau government was keen to highlight the importance of the copra policy during the election period, and doubling of the price of copra from \$1 to \$2/kg in mid-2016 was one of its first major policies. The initial subsidy was enacted in the mid-1990s and has multiple objectives. It is an agricultural subsidy to maintain copra production, boost GDP, and export growth; a cash transfer to ensure a supply of cash in outer island economies; an unemployment benefit; a form of conditional cash transfer to encourage people to remain on the outer islands (in order to slow urban migration); and one of the key transfer mechanisms that the government uses to redistribute its rising resource wealth (fishing license fee revenue) to the population of the outer islands (World Bank, 2018c). The decision to double the copra price increased the cost of the program from \$7.9 million in 2015 (3.5% of GDP) to \$32.2 million in 2017 (13.3%).

Copra-based exports (copra, crude oil, and copra meal) peaked in 2017 at \$11.4 million but slumped to \$4.1 million in 2018, below the ten-year average (Figure 11). In 2017, the amount of raw copra stockpiled in the outer islands from the previous year was notable, with the government chartering additional shipping to collect (and export) the excess product to create storage space. The total value for the 2016–2018 period for copra exports is \$8.6 million for raw copra and \$12.6 million for crude coconut oil. This compares with \$86.1 million for the increased copra price subsidy. Almost all of the copra production and processed oil is exported, suggesting a significant loss in economic value from the subsidy being in place.

The current scheme price is also introducing distortions to the labour market and is undermining the viability of other uses for coconuts. For example, Kiribati Coconut Development Limited (KCDL) reports that virgin coconut oil would require an equivalent copra price of around \$1.50/kg to make virgin coconut oil a commercially viable alternative—this is also supported by an IMF assessment (IMF, 2018, p. 19).

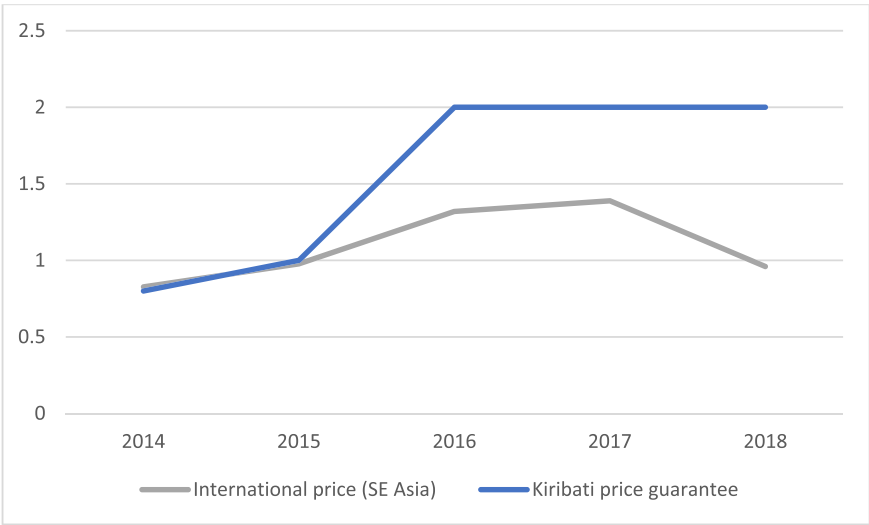
With the price for copra on Asian markets between 2014 and 2018 averaging \$1.10/kg (Figure 12), the 2015 rate of \$1/kg would have allowed the possibility of a break-even (or small loss-making) exercise once the shipping costs to the international ports of Betio (South Tarawa) or London (Kiritimati) were included. However, at \$2/kg, the copra price scheme can no longer be touted as an economic policy.

The copra subsidy clearly does transfer national fishing revenues to outer island communities. From the increase in price in 2016 to the end of 2018, an additional \$62.4 million was sent to the outer islands, representing an additional annual income of between \$2,000 and \$2,500 per outer island household. It is unlikely that the government (or any development partner) would be in a position to mobilise a similar amount of direct payments to outer island communities as rapidly as the copra price adjustment has.



Source: KNSO

FIGURE 11 Copra-based exports, by value, 2008–2018



Source: World Bank Commodity Markets as cited on <https://ycharts.com> accessed 18 August 2019

FIGURE 12 Southeast Asia copra price versus Kiribati copra price guarantee, 2014–2018

However, the copra subsidy is likely to be poor at targeting Kiribati’s most vulnerable populations (World Bank, 2007). Those without access to land are unlikely to have access to the scheme. Those living on an island with a lack of sizeable crop (such as Banaba or Kanton islands) or with relatively high population concentrations (such as North Tarawa and Abaiang) benefit little or not at all. Those households with higher dependency ratios will likewise not be

well served, such as those in the Southern Gilberts that have been shown to have a higher incidence of food and basic needs poverty (MFED, 2018a). Inadvertently, outer island businesses and capital owners who have access to storage facilities have also been able to obtain additional rents by accepting discounted copra as payment (for later resale) when government stores are full. There is no political will to prevent this practice, as these business owners are essentially fulfilling the government's aims of distributing cash payments as rapidly as possible.

The World Bank undertook preliminary work in 2007 to identify potential social protection alternatives to the copra subsidy—looking at possibilities of cash for work, recalibrating the eligibility criteria for the existing social protection scheme for the elderly, increasing post-secondary scholarships, and providing transport grants to seafarers from the outer islands to work on foreign vessels. However, there is sizeable political capital invested in maintaining the new status quo, and it would be politically challenging for any government to unwind the current arrangements without also sacrificing their political base in the outer islands. With 37 of the 44 elected seats in Parliament coming from islands that receive the subsidy¹⁴ and the current price now considered the “new normal”, it would be unlikely that this would ever occur.

Even if the current scheme cannot be dismantled, it can be improved. There are known problems with secure storage and transaction verification. Numerous cases have been reported of “recycling”, a practice whereby copra is stolen from storage only to be resold the next day, as well as of copra with a moisture content too high for crude oil production. Whereas no official data track such cases, export data suggest a large gap between what the island governments collect at the weigh stations and what eventually reaches the copra mill or export market. In 2017 and 2018, 2,020 tonnes of copra and copra oil was exported, at a value of \$15.5 million. Using the global prices from Southeast Asia (a competitor market) of \$1.40 in 2017 and \$0.96 in 2018 and assuming that copra oil is at least as valuable as raw copra, this would suggest raw copra production of at least 15,200 tonnes over two years at a total cost to government of \$30.5 million at the weigh station. Even allowing for much higher prices in destination markets, the cost to government implied by official trade figures (both value and implied volumes) should be dramatically lower than the \$63.3 million paid out by government for copra purchases over the same time period. At best, this suggests significant shrinkage between the weigh station and the destination market; at worst, it suggests significant financial malgovernance.

A possible improvement may be to move the government subsidy payment further along the supply chain. For example, if the government only paid \$2/kg to the copra that reaches the border or the copra mill, the incentives for agents along the supply chain to ensure a full pass through of quality copra would be strengthened. The current system does not allow for this to occur. At present, the copra cutters are paid directly at the weigh station, the weigh station operators are paid by the island councils, and the shipments to collect the copra are paid for by KCDL. KCDL does not pay for any of the subsidised product and only needs to meet its shipment and processing costs. Each participant in the supply chain is guaranteed to receive their pay, regardless of the administrative efficiency of the copra subsidy. Whereas this ensures that funds reach the community and jobs are secure, it does not allow for any incentive-compatible innovation or control along the supply chain nor does it incentivise KCDL to demand better quality product (as it does not need to pay for materials).

¹⁴All islands in Kiribati receive copra subsidy payments except for Banaba and the islets in South Tarawa; Banaba has one Member of Parliament, Betio has three, and South Tarawa has three. There is an additional seat for the Speaker (who is from outside the House of Assembly), and one seat is elected by the Rabi Council of Leaders (the Banaban community living on island in Fiji) bringing the total number of the Members of the House of Assembly to 46.

Whereas government revenues are strong and fiscal surpluses prevail, reforming the copra subsidy will likely be a low political priority, despite the large opportunity cost created from the current design of the scheme. However, now would be an opportune time to experiment with reform, whereas the government has the reserves to take calculated risks. Future increases to the copra subsidy would need to be weighed against the poor economic and fiscal outcomes, as well as the high opportunity costs of diverted expenditures and entrenching an already difficult to reform subsidy. It is also unlikely that any further increase above the world price would deliver the intended social benefits that may or may not be occurring from rent redistribution.

5.2 | Investment in infrastructure

As a small remote economy, Kiribati suffers from significant infrastructure gaps in a number of key sectors (IMF, 2018, p. 19). However, it is clear that previous investments have not fulfilled their design potential, with serviceability and utilisation rates well below prudent levels. The lack of preventative maintenance and minor repair has led to the significant degradation of capital, with a large portion of older infrastructure investments unserviceable well before the end of their design life. Indeed, many of the new investments over the past five years have aimed to restore the functionality of ageing or degraded capital. Whereas these projects have been used as opportunities to improve climate resilience and the scale of services provided by this infrastructure, the types of investments mirror the “build-neglect-rebuild” cycle found elsewhere in the Pacific (Alejandrino-Yap, Dornan, & McGovern, 2013). Meanwhile, new revenues have enabled the funding of poorly designed and selected projects, diverting funds from potentially more productive investments and creating new challenges for agencies.

The asset management and investment challenges that Kiribati faces were raised in a Pacific Regional Infrastructure Facility (PRIF) report in 2015 and subsequent Roadmap (PRIF, 2015). Key weaknesses identified include inadequate reporting and monitoring, poor communication within and between agencies, strained internal capacity, and a lack of overall infrastructure planning and scheduling (PRIF, 2016).

The project reporting templates and program that were attempted under the PRIF Roadmap appear to have only partially been retained. The 2016–2019 KDP did not have the consolidated six-month reporting of government and development partner projects envisioned under the PRIF reforms, although most projects are required to submit their project report at least once a year as part of the regular project warranting process. However, the wide range of quality in project documentation, as well as a lack of National Economic and Planning Office (NEPO) staff capacity, did not enable effective consolidated reporting or evaluation.

The IMF has also identified that Kiribati faced particular challenges in national and sectoral planning, project selection, procurement, monitoring of assets, and the implementation of regulatory frameworks—a conclusion supporting the PRIF assessment. In terms of organisational and legal frameworks, no unit is responsible for inspecting assets or enforcing asset management practices, with the closest divisions at MFED and the Ministry of Infrastructure and Sustainable Energy (MISE) not able or required to do so. Similarly, there is currently no system or requirement to manage the risks associated with planned, new, or existing assets. Once a project is approved, a poor understanding of project and asset lifecycle risks does not enable effective mitigation strategies or design variation (such as planning for regular coastal inundation or adapting designs to better suit the capacity to maintain/repair). A second reform program for asset management is yet to commence under the current Economic Reform Taskforce (ERT)

budget support arrangements; however, with the election in 2020 rapidly approaching, administrative reform measures (such as staffing and funding) would be the most likely areas for government action (as compared with the longer-term institutional and legislative reform).

Infrastructure maintenance is a key institutional gap in Kiribati, with limited funding prior to the 2019 Budget cycle (IMF, 2018, p. 25). With larger and sustained capital investments on the horizon for both government and development partners, asset management will need to improve to ensure that the new investments are effectively expanding the capital base of the economy rather than only replacing degraded investments. A focus on maintenance and operations also allows for the creation of a maintenance industry—one that local companies would have a comparative advantage in servicing when compared with large infrastructure projects (which are predominantly built by foreign companies). This will require the introduction of a robust and embedded system for asset management in Kiribati that supports a culture of maintaining new and existing capital. The \$2 million per year set aside in the 2019 Budget (half of which is to ensure that the road clearing and drainage contracts are fully funded) is a good start but will fall well short of meeting incumbent infrastructure maintenance needs (IMF, 2018, p. 30). Kiribati's 2020 Fiscal Strategy has already indicated that these maintenance funds will be expanded to include other infrastructure and assets, but it is too early to determine if implementation will meet the required standards. Even short-term lapses can have longer-term consequences, as was evident by the delay in the appointment of the South Tarawa road maintenance contractors in 2019. This led to a rapid build-up of sand in drainage areas, causing potential damage to the road surface during heavy rain events. Repeated lapses such as this will inevitably degrade the road surface earlier than intended.

Project selection, planning and management are also key weaknesses in Kiribati systems. Prior to 2012, most capital investment and all infrastructure development was carried out using development partner funding and direct donor project management, somewhat limiting the impact of these shortcomings. After 2012, the government became more involved with infrastructure investment mainly by co-financing existing development partner projects—although the management of these projects often remained in partner-led project teams (KAIP, KRRP, and sanitation).

However, the prudent conservative bias in revenue estimates in the main budget rounds has led to a dramatic increase in supplementary budget spending. This has resulted in a number of large government capital projects avoiding the more rigorous process of a full budget cycle, degraded the credibility of the annual budget, and created a divergence between development partner and government funding priorities. The first example of this divergence was the \$30 million (12% of GDP) Outer Island Infrastructure Project in a 2017 supplementary budget. Despite being a funded project in 2017 there has yet to be any mobilisation of the funding for implementation (as at late 2019), nor are there any public project preparation documents. Development partners (particularly the development banks) have declared that they will support the government's aims and priorities in the outer islands through maritime and other critical infrastructure (such as bridges) but will not be involved in the main priority area of road construction and sealing.

Similarly, large singular investments that would not have previously been possible within the annual fiscal envelope have become features of government spending. Aside from the aforementioned outer islands project (which would likely run into the hundreds of millions of dollars if fully costed), the Embraer purchases are by far the largest example of this. Such large and complex projects will undoubtedly strain the nascent management capability within Kiribati agencies and could potentially overburden the system as a whole. Importantly, such projects

carry significant operational, fiduciary and financial risks that Kiribati institutions and politics have not previously experienced.

Ultimately, the management of government investments will likely be the defining issue during these years of booming revenues. The IMF, 2018 Article IV Consultation estimates that climate change adaptation costs alone will amount to 6% of GDP a year within the next five years, in addition to the servicing costs of existing infrastructure of around 2% of GDP. Combined with rapidly increasing operational expenditure in the core budget, these escalating maintenance and adaptation costs will progressively limit the ability of current and future governments to make discretionary investments. Together with improvement to project selection, effective practices across the whole asset management cycle will ensure that the limited fiscal space is not used up selecting high-risk/low-return projects and replacing poorly designed or maintained investments.

5.3 | Tourism

The development of a tourism industry in Kiribati is a key focus of the KV20. The government views the development of sustainable tourism as providing a range of benefits from jobs and investment to improved services and reduced urban drift. Consistent with these aims, the KV20 features large investments in tertiary skills training and transport infrastructure.

The crowded Pacific tourist market and inconvenient transport links will make it difficult for Kiribati to compete with other destinations nearby, notably Fiji and Hawaii, which are the main air-transit links to Kiribati's Tarawa and Kiritimati islands. With just 5,663 total arrivals in 2017 (compared with 842,884 for Fiji), Kiribati is one of the least visited nations in the world (South Pacific Tourism Organisation, 2018, p. 3). With such a low level of international visitation, significant investment and training would be required to reach service standards similar to the rest of the region. Environmental issues, particularly the poor health of Tarawa lagoon, also present major hurdles. More broadly, in Tarawa (the main island), environmental and urban overcrowding are likely to result in low returns on tourism investment and poor tourist experiences. The outer islands have more potential in terms of environmental attraction, but the costs of development are expensive when compared with regional peers and there are many alternatives within the region for both consumers and investors.

Moreover, the risks of adopting a single-industry economic policy are obvious. There are numerous examples across the Pacific where tourism-based gambles have wasted precious government resources on public investments in hotels and airlines. Kiribati has its own example: the Otintaai Hotel in Tarawa, a government-owned hotel that was supposed to be the focus of Tarawa-based tourism, has failed to live up to expectations. The hotel has not been the largest accommodator in Tarawa for many years, and government efforts to revive the site have struggled to gain traction. Following a failed private concession aimed at commercialising operations, half of its rooms had to be demolished due to safety concerns from poor upkeep.

There is also no guarantee that the significant recent commitment by the government to buy two Embraer 190-E2 aircraft (estimated at \$37 million each) will necessarily increase the number of passenger arrivals into Tarawa or Kiritimati island. There are already international air-links into Tarawa once a week via Nauru (Nauru Airlines), Honiara (Solomon Airlines), and the Republic of Marshall Islands (Nauru Airlines), twice a week via Nadi

(Air Fiji), and once a week via Nadi–Honolulu to Kiritimati island (Air Fiji). Air Kiribati also runs a weekly service to the Federated States of Micronesia on its newly government-purchased Dash 8, which is serviced in Pohnpei. With current capacity utilisation on these routes already low, two additional aircraft will likely struggle to gain traction without significant subsidisation by the government. If Air Kiribati performs well, the likely outcome would be a reduction in the passenger share of competing airlines, rather than net gains in overall tourist numbers. The size and longevity of the required subsidies are currently unknown and uncoded, especially if the rumoured Boeing 737 from switching recognition to the People's Republic of China is included in operational requirements.¹⁵

It is difficult to envisage the new jets significantly boosting tourism figures in the short term, as Tarawa-based accommodation is regularly booked out with current volumes of tourism and foreign workers. The development of tourist capacity takes time. Fiscal risks aside, success for Air Kiribati does not mean success for Kiribati tourism overall.

Tourism development should be a long-term aim for Kiribati authorities. Tourism can have many pro-poor spillovers to the general population, and has been shown (in the case of Fiji and Vanuatu) to be resilient in the face of economic and environmental shocks.

Given this and the risks identified above, Kiribati should focus on the precursors for tourism ahead of more direct investments that may absorb large amounts of resources with little immediate return. To be concrete, the government should invest in sanitation, water, and basic education ahead of industry-specific measures such as flight subsidies, international marketing campaigns, or direct market intervention/creation (e.g., building hotels). In this way, any public investment in core activities of government will have benefits beyond supporting an industry that may or may not eventuate.

To develop tourism, Kiribati will also need to develop the private sector. This will be a significant challenge for the country, which ranks 157 (out of 190) on the 2018 World Bank Ease of Doing Business Indicators, has stringent foreign investment controls, a lack of idle land, and no banking and finance legislation (World Bank, 2018a). Addressing these issues would be a useful starting point for broader economic participation by the private sector and would require significant regulatory change. Examples would include lifting biosecurity embargoes that appear to have little correlation to domestic agricultural risks; reviewing the tariff structures on imported foodstuffs; increasing the minimum tax threshold for small businesses; allowing electronic settlement of public sector payments to suppliers; and the eventual withdrawal of public enterprises from areas directly competing with the private sector (such as printing, carpentry, construction, shipping, and widespread public housing).

6 | CONCLUSION

The increase in fishing revenue over the past decade has been a game changer for Kiribati, enabling the country's government to embark on an unprecedented program of capital and infrastructure investment that has the potential to lift long-term economic growth and prosperity for the Kiribati people. However, with rapidly increasing recurrent expenditures, high-risk

¹⁵In September 2019, Kiribati ended diplomatic relations with Taiwan and commenced relations with the People's Republic of China.

government investment, and the maintenance burden of increased infrastructure requiring dedicated funding, this fiscal space will likely come to an end in the coming years, if not sooner.

The key challenge now is to ensure that the revenue boom is wisely spent and that investments fundamentally shift the development trajectory of the Kiribati people. The government could have a few more years of breathing space to engage in low-risk reforms and targeted investments provided that they maintain medium-term fiscal balance. This would grant the government significant latitude to improve asset management practices and allow the private sector to meaningfully engage with the economy, which would increase the effectiveness of future government actions. Fishing revenues are risky and alone will not be sufficient to raise the standard of living to the level envisioned in the KV20 without significant reforms.

“Silver bullet” solutions may look appealing to politicians and constituencies that have seen relatively little development despite sudden increases in national income. However, without a robust, well-organised system to make prudent expenditure decisions and an asset management system that supports maintenance of new assets, Kiribati is at risk of whittling away what would be the best opportunity it has had in its history to take control of its development future. A “muddle through” approach that mimics the build-neglect-rebuild cycle of old and prioritises short-term operational spending and singular capital projects over long-term planning will ensure that Kiribati will fall well short of its development aspirations.

Similarly, the private sector will need to have a better business environment to improve job creation. Poor environmental outcomes, burdensome regulation, poor infrastructure, and unreliable government services will make it difficult for a tourism industry to grow, despite the expensive addition of additional airline capacity.

These views are not particularly new or groundbreaking. However, addressing these core reform challenges will go a long way to making sure that the prosperity of the Kiribati people increases in the decades to come.

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