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Should Pacific island nations adopt the Australian dollar?

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Pacific island nations employ a wide range of currency arrangements. For example, while Nauru, Kiribati and Tuvalu use the Australian dollar and the Cook Islands, Niue and Tokelau use the New Zealand dollar, other nations, such as Fiji, Papua New Guinea, Solomon Islands, Tonga, Vanuatu and Samoa, have their own currencies, most of which are managed floats with some form of capital controls. While a separate currency provides this latter group of countries with the freedom to set their own monetary policy, it has a number of problems.

In recent years, the International Monetary Fund (IMF) has argued that some of these countries should adopt freer, more flexible currency regimes. But most, if not all, of these countries do not have—and are not likely to have—sufficiently deep domestic financial and foreign currency markets to support the liquidity necessary to maintain a freely floating exchange rate.[1]

Moreover, not only do these countries tend to have narrow export structures— which make them especially vulnerable to supply shocks, such as bad weather and crop failure, and foreign demand shocks—but they also tend to experience major political disturbances at times. All of these factors can give rise to substantial pressure on foreign exchange reserves and the value of their currencies. Institutions like central banks are also costly to run, both in terms of the opportunity cost of skilled people to staff the institutions, and in terms of policy failures. Some countries, most notably Papua New Guinea, have had tremendous difficulty in maintaining the independence of their central bank and the focus of their monetary policy, which has seriously weakened the argument for monetary independence (Xu 1999; Duncan and Xu, this issue).

This article argues, on economic grounds, that independent Pacific island nations would do well to consider adopting some other country's currency as their own. This need not undermine their sovereignty as independent nations, and would provide a stabilising force in their economies and policy structures. Given the economic importance of Australia to these nations and the size of the Australian dollar market, the Australian dollar is the most suitable candidate. Such dollarisation would be simpler and likely provide more benefits than the adoption of a currency board.

This article first applies some of the key criteria set out in the literature on optimal currency areas to the South Pacific island nations, with particular focus on whether the Australian dollar should be used as the common currency. It then examines some of

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the downsides that are associated with replacing a national currency. The conclusion summarises the key arguments.

Should the Pacific island nations use a common currency?

The key conditions for countries to use the same currency are that their economies have similar structure and adjustment processes. An independent exchange rate provides a country with a means to adjust relative prices as its economic circumstances change. If economic circumstances among countries are similar, and if other adjustment processes within this set of countries are flexible and efficient, then the need for each country to have its own exchange rate are less strong (Mundell 1961). The similarity in structure includes trade, industry and financial development, as well as common policy structures (Haberler 1966), including the

need for some form of fiscal transfer to redistribute or compensate for differences in unemployment between countries in a common currency bloc (McKinnon 1963; Kenen 1969). It is well understood that common currency arrangements themselves tend to make countries' structures and policies more similar (Scitovsky 1958; Frankel and Rose 1998).

If other adjustment processes in an economy work quickly and efficiently, the need for an independent currency is also less obvious. One aspect that features prominently in the analysis is factor mobility. The more mobile labour is within a region, and the less mobile it is between regions, the more appropriate it is to fix the exchange rate and adopt a common currency within the region (Mundell 1961). Another factor is price flexibility. The more flexible and responsive domestic cost and price structures are to adverse shocks, the less costly is adjustment in the real side of the economy, and the less

Figure 1 **Real effective exchange rates, 1980–99**
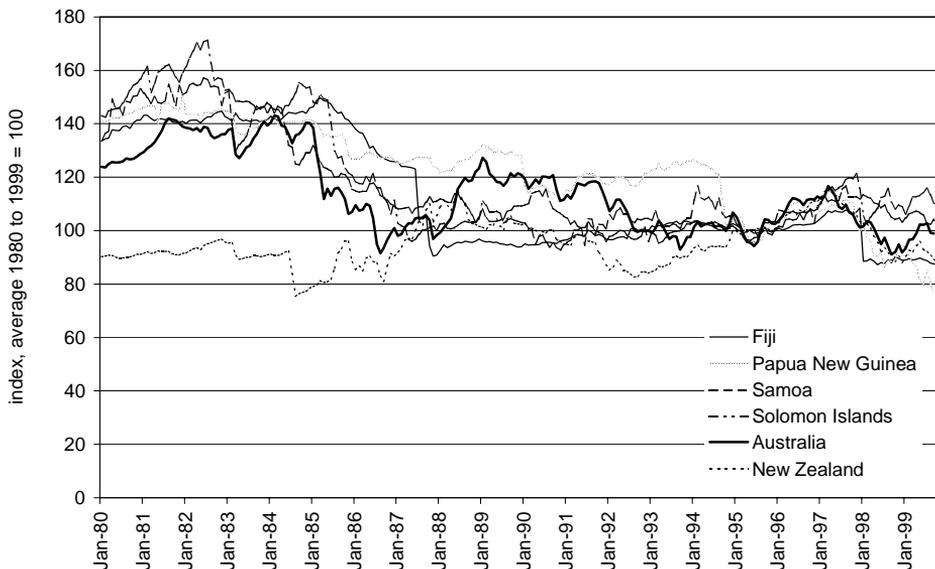
Source: International Monetary Fund, *International Financial Statistics*, Washington, DC, various issues.

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Table 1   **Key trading partners of Pacific Island nations, 1997**

To	Exports $A million (% share)	From	Imports $A million (% share)
Japan	955 (26.1)	Australia	1,527 (33.3)
Australia	782 (21.4)	France	786 (17.2)
United Kingdom	276 (7.6)	New Zealand	401 (8.8)
United States	276 (7.6)	Japan	389 (8.5)
Germany	266 (7.3)	United States	352 (7.7)

Note: The Pacific Islands include American Samoa (USA), Cook Islands (NZ), Fiji, French Polynesia (France), Guam (USA), Kiribati, Marshall Islands, Micronesia, Midway Island (USA), Nauru, New Caledonia (France), Niue (NZ), Norfolk Island (Australia), North Mariana Islands (USA), Palau (USA), Papua New Guinea, Pitcairn Island (UK), Solomon Islands, Tokelau Island (NZ), Tonga, Tuvalu, Vanuatu, Wake Island (USA), Wallis and Futuna Islands (France), and Samoa as well as the Indian Ocean islands of the Cocos Islands (Australia) and Christmas Island (Australia).
Source: Napes Database.

obvious is the need for the country to have an independent currency (McKinnon 1963).

On these criteria, the argument that Pacific island nations should use the Australian dollar looks mixed. The Australian economy is much more diverse than Pacific island economies, there are no formal fiscal transfer arrangements between these nations and Australia—and no likelihood of them—and none of these countries has free labour mobility with Australia. Moreover, real effective exchange rates of these countries diverge substantially from each other at times (Figure 1). Real exchange rates are endogenous prices and the outcome of the structure of the economy and the set of domestic and foreign shocks that affect it, and so one would expect that the real exchange rates of countries that have similar structures and experience similar shocks would have common trends. But they do not (Appendix A).

But the differences are over-stated. While the Australian economy is more diverse, it is the economy of most importance to the Pacific island nations. The trade relations of Pacific island nations tend to be concentrated in a small number of countries (Table 1). For the Pacific islands as a whole, Japan and Australia dominate as the location for islands' exports, while Australia and France dominate as the source of their imports. For the independent Pacific island nations, Australia and New Zealand tend to be the key trading partners. For example, Australia accounts for over 40 per cent of Papua New Guinea's exports and over 50 per cent of its imports, and more than one quarter of Fiji's exports (with Australia also being the biggest source of tourism revenue) and 40 per cent of its imports. Similar patterns appear for Samoa, Tonga and Vanuatu.

Moreover, while Pacific island nations import a range of goods and services, they have narrow export bases which tend to be concentrated in tourism or a small set of mineral agricultural commodities (Table 2).[2] For example, Samoa's main commodity exports are fish, copra, and coconut oil and cream, Tonga's are squash, fish and root vegetables, and Vanuatu's are copra, timber and cocoa. A similar pattern of narrowness

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is evident in the larger island nations: Fiji's merchandise exports are concentrated in sugar, garments and gold, while those of Papua New Guinea are dominated by gold, petroleum, copper, timber and coffee. The Australian dollar has historically tended to depreciate when agricultural and resource commodity prices fall, thereby stabilising the domestic economy in the face of particular foreign shocks;[3] to the extent that the prices of individual commodities move with commodity prices in aggregate, fixing to the Australian dollar would provide similar insulating properties.

While there are no fiscal transfers as such, aid flows from Australia to the Pacific islands are substantial. And while labour may not be perfectly mobile, there is relatively substantial emigration to Australia. While regional real exchange rates do not share common trends over decades, this would largely seem to be the result of large idiosyncratic shocks, often political, in particular countries. Moreover, the evidence of common trends is stronger in the 1990s (Appendix A). Xu (1999) argues that Australia and Papua New Guinea are an optimal currency area—as do Grimes, Holmes and Bowden (2000) for Australia and New Zealand.

There is also a widespread assessment in the literature that the costs of an independent currency may be higher for small countries. While an independent currency can help stabilise an economy in the face of external shocks, it is absurd to argue that every city, region or country should have its own exchange rate, since this would substantially increase the planning and operating costs for consumers and business, and undermine the function of money as unit of account and medium of exchange (Mundell

Table 2   **Commodity structure of Pacific Island nations merchandise exports, 1997**

Commodity class	Per cent of total
0: food and live animals	20.1
1: beverages and tobacco	0.1
2: crude materials	35.8
3: minerals and fuels	16.2
4: animals and vegetable oils	5.8
5: chemical products	0.4
6: basic manufactures	13.3
7: machinery and transport equipment	1.8
8: miscellaneous manufacturing	5.8
9: unclassified goods	0.7

Note: The Pacific Islands include American Samoa (USA), Cook Islands (NZ), Fiji, French Polynesia (France), Guam (USA), Kiribati, Marshall Islands, Micronesia, Midway Island (USA), Nauru, New Caledonia (France), Niue (NZ), Norfolk Island (Australia), North Mariana Islands (USA), Palau (USA), Papua New Guinea, Pitcairn Island (UK), Solomon Islands, Tokelau Island (NZ), Tonga, Tuvalu, Vanuatu, Wake Island (USA), Wallis and Futuna Islands (France), and Samoa as well as the Indian Ocean islands of the Cocos Islands (Australia) and Christmas Island (Australia).
Source: Napes Database.

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1961; Isard 1995). The burden of running a set of institutions that can effectively and efficiently manage an independent exchange rate and monetary policy can also be high for small countries, because it can be hard to find people with the necessary skills and experience, and because the process can be subverted more easily. This is notably the case with Papua New Guinea (Duncan and Xu, this issue). For this reason, the general view in the literature is that it does not pay for very small countries to have their own currencies.

There are two other reasons why it can be in a small country's interests to use another, bigger country's currency. The first is that it can eliminate the adverse impact of some domestic nominal shocks on its exchange rate, particularly those arising from political problems.

A number of Pacific island nations have been subject to political crises due to racial conflict or corruption. These crises have often been severe and there is little prospect that they will lessen in the future. For example, Fiji and Solomon Islands have experienced a number of coups, and Papua New Guinea has experienced internal disruption, as in Bougainville, and ongoing political instability due to corruption. This can have an independent and adverse impact on a country's exchange rate: from mid-1997 to September 2000, the kina and the Fiji dollar depreciated by 29 per cent and 12 per cent, respectively, against the Australian dollar (which itself was at record lows against the US dollar). Similarly, changes in government in Vanuatu put pressure on the vatu in late 1999 and early 2000 (IMF 2000).

Idiosyncratic nominal shocks of this sort increase the vulnerability of currencies of small economies to large shifts in value (Melvin and Tan 1996). Using the currency of a much larger, more politically stable country effectively dilutes the effects of such instabilities and pressures on the currency. Smallness in this respect is relative—the exchange rates and bond yields of both New

Zealand and Canada at times have had political risk premia built into them (because of concerns about secession by Quebec in Canada's case and about policy instability in New Zealand's case) which could be largely eliminated, at least with respect to the exchange rate, by currency union with their closest neighbours.

Using a bigger economy's currency can also eliminate problems of exchange rate management associated with a lack of liquidity in the foreign exchange market. As discussed above, the Pacific island nations tend to import a wide range of goods and services but export a narrow specialised set of goods and services. This makes export revenue highly vulnerable to specific supply shocks, such as bad weather and crop failure, and the concentration of exports in a small range of agricultural commodities can create substantial seasonal patterns in trade, as shown for Fiji in Figure 2.

Both of these effects can have a disproportionate impact on liquidity in individual foreign exchange markets, which, because of their small size, capital controls and limited investment flows, are dominated by trade flows. Not only does this make it difficult for the authorities to manage liquidity in these markets, but it makes it next to impossible to rely on the market alone to set the exchange rate since this would generate large seasonal swings in the exchange rate. Using the currency of another country with large liquid markets can eliminate this difficulty. The Australian dollar is the seventh most traded currency in the world (BIS 1999), and so offers substantial liquidity.

While the US dollar and the NZ dollar are also candidates, the Australian dollar is the most viable anchor for currency union by the Pacific island nations. Not only is Australia the region's key trade partner, but the stabilising properties of the Australian dollar are substantially greater for commodity price shocks than those of the

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Figure 2 **Net exports of Fiji** (F$ million)
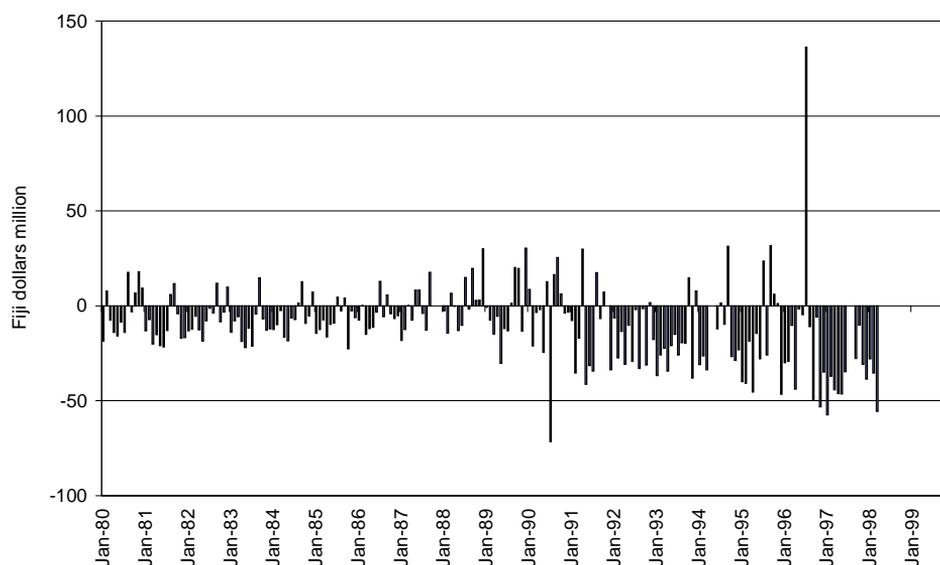
Source: International Monetary Fund, *International Financial Statistics*, Washington, DC, various issues.

NZ dollar and the US dollar (Grimes, Holmes and Bowden 2000), and liquidity is substantially deeper in the Australian dollar market than the NZ dollar market (de Brouwer forthcoming).

Australia is also a good anchor country because it has a strong record of low and stable inflation. While New Zealand's inflation record is also good, Australia's inflation target has been applied more flexibly, with substantially higher and more stable output growth than New Zealand (Grimes, Holmes and Bowden 2000; de Brouwer 2000).

What about the downsides?

If there are advantages for Pacific island nations in adopting the currency of Australia, how do they stack up against the disadvantages? In practical terms, there are four possible disadvantages. The first is that countries lose autonomy in their monetary policy, although in some cases this would be an advantage (Duncan and Xu, this issue).

Adopting another country's currency is also viewed as a loss of national prestige and sovereignty. There is a well-documented tendency for people to equate sovereignty with having a national currency (Mundell 1961), but the international debate on this issue is changing, as evidenced by the preference of several Latin American countries to use the US dollar and the emerging debate in New Zealand about establishing a common currency with Australia or using the Australian dollar (Grimes, Holmes and Bowden 2000).

One consequence of adopting another country's currency is the loss of seigniorage revenue—the profits from printing

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currency—that accrue to the authorities of the issuing country; in the case of Australia, this is the Reserve Bank of Australia. As argued by Duncan and Xu (this issue) and Grimes, Holmes and Bowden (2000), this can be overcome by income transfers from Australia equal to the estimated income losses.

Another consequence of adopting another country's currency is that the authorities are limited in their capacity to bail out their banks in the event of a banking crisis. When the authorities do not have the ability to 'print money', the capacity to bail out banks is limited by the currency reserve holdings of the authorities. This is not an insuperable problem since Pacific island governments can borrow funds in international financial markets or could form an agreement with the Australian government for funds to be lent at commercial rates in a crisis. Given that most banks in island economies are foreign, mostly Australian owned, this may not be a critical problem.

One alternative to adopting the currency of another country is to establish a currency board, whereby the local currency continues in circulation but its value is fixed against the reference currency and its volume is fixed to the quantity of reserve holdings of the reference currency. A credible currency board is self-stabilising. If people convert the home currency to the reserve currency, the quantity of the home currency falls, which pushes up domestic interest rates. This makes local assets more attractive and so people convert the reserve currency back to the home currency.

A currency board has the advantage that it can eliminate some of the shocks to the exchange rate without seeming to compromise national sovereignty since the domestic currency remains in circulation. But it has a number of disadvantages. As is clear from the experiences of Argentina and Hong Kong in recent years, currency boards invariably come under pressure, and these stresses appear in the form of higher interest rates. Moreover, currency boards are not a credible alternative for most countries since the commitment to fix the exchange rate and back the domestic currency with reserves of the reference currency can be revoked at any time. This is more likely to occur under crisis conditions, which is precisely the time when credibility and stability matter.

Conclusion

The Pacific island nations are small, undiversified economies vulnerable to a range of shocks—weather and crop failures, changes in foreign demand, and domestic political uncertainty or turmoil—and they trade with a limited, concentrated set of countries. While they have adopted a range of exchange rate regimes, it is an arguable proposition that countries with these characteristics should use the currency of another, bigger country, such as Australia, rather than their own.

Adopting the Australian dollar would provide a number of advantages in dealing with the vulnerabilities to which these nations' economies are exposed. Not only would it reduce the administrative burden in these countries, but it would reduce the impact of political disturbances on their economies, eliminate the difficult task of managing liquidity in their foreign exchange markets, and stabilise the exchange rate with their most important trading partner. The Australian dollar is the most sensible candidate to replace national currencies, given the trade and economic linkages between these countries and Australia, the market size and stabilising properties of the Australian dollar, and the solid performance of Australian monetary policy over the past decade.

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Notes

[1]   For example, the IMF in recent years has been encouraging Fiji to make its exchange rate more flexible, reduce its capital controls and boost its financial markets. This has not been successful because Fiji's international financial flows are dominated by trade payments and its domestic financial markets are dominated by a few large financial institutions.

[2]   Tourism services are an important source of foreign exchange earnings for all Pacific island nations and, in some cases, such as Samoa, Tonga and Vanuatu, it is the most important source, with Australia a key country.

[3]   See Blundell-Wignall et al. (1994), Tarditi (1996) and Beechey, et al. (2000).

[4]   The results are not shown but are available from the author on request.

References

Bank for International Settlements (BIS), 1999. *Central Bank Survey of Foreign Exchange and Derivatives Market Activity*, BIS, Basle.

Beechey, M., Bharucha, N., Cagliarini, A., Gruen, D. and Thompson, C., 2000. *A Small Model of the Australian Macroeconomy*, Research Discussion Paper RDP 2000–05, Reserve Bank of Australia, Sydney.

Blundell-Wignall, A., Fahrer, J. and Heath, A., 1994. 'Major influences on the Australian dollar exchange rate', in A. Blundell-Wignall (ed.), *The Exchange Rate, International Trade and the Balance of Payments*, Reserve Bank of Australia, Sydney:30–78.

de Brouwer, G.J., 2000. 'An Anzac currency', *Agenda*, 7(3):271–6.

——, 2001. *Hedge Funds in East Asia*, Cambridge University Press, Cambridge (forthcoming).

Duncan, R.C. and Xu, X., 2000. 'Should Papua New Guinea adopt a stronger exchange rate regime?', *Pacific Economic Bulletin*, 15(2).

Frankel, J.A. and Rose, A.K., 1998. 'The endogeneity of optimum currency area criteria', *Economic Journal*, 108 (4,490):1,009–25.

Grimes, A., Holmes, F. and Bowden, R., 2000. *An ANZAC dollar?*, Institute of Policy Studies, Victoria University of Wellington, Wellington.

Haberler, G., 1966. 'Adjustment, emplyment and growth', in W. Tellner et al., *Maintaining and Restoring Balanace in International Payments*, Princeton University Press, Princeton:123–35.

International Monetary Fund, 2000. IMF Concludes Article IV Consultation with Vanuatu, Public Information Notice (PIN) No. 00/72, 5 September.

Isard, P., 1995. *Exchange Rate Economics*, Cambridge Surveys of Economic Literature, Cambridge University Press, Cambridge.

Kenen, P., 1969. 'The theory of optimum currency areas: an eclectic view', in R. Mundell and A. Swoboda (eds), *Monetary Problems of the International Economy*, University of Chicago Press, Chicago:41–60.

McKinnon, R.I., 1963. 'Optimum currency areas', *American Economic Review*, 53:717–24.

Melvin, M. and Tan, K., 1996. 'Foreign exchange market bid-ask spreads and the market price of social unrest', *Oxford Economic Papers*, 48(2):329–41.

Mundell, R., 1961. 'The theory of optimum currency areas', *American Economic Review*, 51:657–65.

Scitovsky, T., 1958. *Economic Theory and Western European Integration*, Allen and Unwin, London.

Tarditi, A., 1996. *Modelling the Australian Exchange Rate, Long Bond Yield and Inflationary Expectations*, Research Discussion Paper No. 9608, Reserve Bank of Australia, Sydney.

Xu, X., 1999. 'The exchange rate regime in Papua New Guinea—getting it right', *Pacific Economic Bulletin*, 14(2):48–70.

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Appendix A

Real effective exchange rates

Cointegration analysis is the standard way to assess long-run relationships between economic variables. The Johansen method is used to assess whether the monthly real effective exchange rates of Australia, Fiji, New Zealand, Papua New Guinea, Samoa and Solomon Islands are cointegrated over two sample periods, from 1980 to 1999, and from 1990 to 1999. Table A1 shows the maximal eigenvalue and trace test statistics for the number of cointegrating vectors in both sample periods. There are no cointegrating relationships over the full sample period but there is one from 1990 to 1999.

The single cointegrating vector for the 1990 to 1999 period is

$$0.80 \, Australia \, REER - 0.21 \, New Zealand \, REER \quad (1)$$
$$+ 0.32 \, Fiji \, REER - 0.14 \, PNG \, REER$$
$$+ 1.73 \, Samoa REER$$
$$- 3.9 \, Solomon Islands REER$$

The signs on the real effective exchange rates of New Zealand, Papua New Guinea and Solomon Islands are negative. The error correction term is only significant in the error correction model for Samoa and Solomon Islands and it is only correctly signed—that is, negative—for Samoa.[4]

Appendix Table 1   **Number of cointegrating vectors**

	1980–99		1990–99	
	Maximum eigenvalue	Trace tests	Maximum eigenvalue	Trace tests
r = 0	33.8	101.6	42.4*	108.9*
r <= 1	32.1	67.8	26.5	66.43
r <= 2	17.5	35.7	18.2	39.9
r <= 3	11.1	18.2	14.4	21.8

Notes: Estimated using Microfit 6; * indicates significance at the 90 per cent critical value.