Reforms in exchange rate arrangements: is there a case for a currency board in Vanuatu?

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A recent study by the Asian Development Bank of public sector reform implementation in the Pacific islands recommended investigating the possibility of adopting a currency board arrangement (CBA) for Vanuatu, replacing the existing pegged exchange rate system. It appears that the recommendation has been made on the grounds that the country's capacity for monetary management was weak and it needed institutional strengthening. This paper reviews the evidence and concludes there is not a case for a currency board arrangement in Vanuatu at present.

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There are certain basic issues in the choice of an exchange rate arrangement that have to be considered by developing countries in light of their individual circumstances. Three sets of criteria have been identified by Corden (2001) and Duncan et al. (1998)

- real targets approach
- nominal anchor approach
- exchange rate stability approach.

In the real targets approach, exchange rates supported by fiscal policy are used to achieve real targets, which include full employment and competitiveness. The underlying reasoning is that a nominal exchange rate change can be translated into a real exchange rate change in the short run, since inflation would not erode away the nominal exchange rate change. In the nominal anchor approach, under which it is intended to send a clear message to agents about prospects for inflation, the exchange rate is used to anchor the domestic inflation rate to that of the country's trading partners. The exchange rate stability approach focuses on the disadvantages of floating rates, which are unstable.

However, the choice of exchange rate regimes is not absolute. Rather, they lie in a continuum between a floating exchange rate

Pacific Economic Bulletin Volume 16 Number 2 November 2001 © Asia Pacific Press

at one end and firmly fixed arrangements at the other. In between, there are several options. These include crawling pegs, which Corden (2001) recommended as appropriate for countries such as those in Latin America that have significant inflation compared with their trading partners. The peg can be passive and altered in line with past inflation, or active, whereby the country announces in advance the exchange rate adjustments it intends to make. Another regime is a fixed but adjustable rate, also known as fixed rates within a narrow band, under which a strong exchange rate commitment is made. Under this regime, and in the context of increased capital mobility, countries such as Brazil and Thailand, which are well integrated with the rest of the world, had difficulty. Corden (2001) observed that this regime is workable for developing economies that are not well integrated with world capital markets and have effective capital controls. Another regime in the continuum is a target zone, which is a compromise between floating rates and fixed but adjustable rates. The central rate can be fixed, crawling or flexible and is surrounded by a band within which the central rate is permitted to float.

Exchange rate arrangements

A variety of exchange rate arrangements is followed by the 185 member states of the International Monetary Fund (IMF). These vary from firmly fixed regimes to independently floating regimes (Hilaire 2001).

No separate legal tender. Countries adopt the currency of another country (US dollar or other foreign currency) as legal tender. Examples are Kiribati, which uses the Australian dollar, and Marshall Islands and the Federated States of Micronesia, which use the US dollar (see Table 1). This is known as dollarisation. The oldest dollarised country is Panama, which adopted the US dollar in 1904. Most recently, Ecuador officially began using the US dollar on 1 January 2001. Within the same category falls the euro area, with 12 countries using the euro, and the Eastern Caribbean Currency Union (ECCU) using the Eastern Caribbean dollar, which is firmly pegged to the US dollar.

The total number of countries in this category is 38, of which 12 are small states—a small state being defined as having a population of 1.5 million or less.

Currency boards. Countries are committed to exchange domestic currency at a fixed exchange rate. The total number of countries that have employed currency board arrangements is eight, of which three are small states. While the value of Brunei Darussalam's currency is fixed in terms of the Singapore dollar, Djibouti's and Estonia's currencies are fixed in terms of the US dollar and the deutschemark. The backing rules are different. In the case of Brunei Darussalam, the minimum coverage is less than 100 per cent of the monetary base, while Hong Kong maintains foreign exchange in excess of the amount needed to back the monetary aggregate.

Other conventional fixed peg arrangements. In all, there are 45 countries in this category, 20 of them being small ones. The domestic currency is pegged to a major currency, and in less than one-third of cases, to a basket of currencies. The exchange rate through managed floating, fluctuates within a very narrow margin (1 per cent or less) around a central rate.

Pegged exchange rates within a horizontal band. Under this regime, the country pegs its currency and maintains it within more than a 1 per cent margin around a central rate. There are six countries in this category, out of which only one is a small country.

Crawling pegs. The currency is adjusted periodically in small amounts at a fixed, pre-announced rate. There are five countries in this category and no small state has adopted this arrangement.

Managed float with no pre-announced path. The monetary authority influences the movements of the exchange rate through active intervention in the foreign exchange market, without pre-committing to a specific path for the exchange rate. Twenty-seven countries have adopted this arrangement, out of which two are small countries.

Independently floating. The exchange rate is market determined, with any foreign exchange intervention aimed at moderating the rate of change and preventing undue fluctuations in the exchange rate rather than at establishing a level for it. In all, 50 countries have adopted this arrangement, three being small countries.

Reviewing changes in exchange rate arrangements since 1991, Stanley Fischer of the IMF observed that there has been considerable movement from the intermediate positions of various pegs towards either of the two corner regime positions (Fischer 2001). This hollowing out of the middle of the distribution of exchange rate regimes, with the share of both hard pegs and floating regimes gaining at the expense of soft pegs, is not only true of economies that are active in international capital markets, but also of the newly emerging economies, which have made substantial progress in domestic financial sector reforms towards integration with global capital markets. In 2000, among the 22 industrial market economies that have complete or nearly complete capital mobility, nearly half have established hard pegs and nearly half float their currency. The hard peg countries are dominated by the member countries of the European Monetary Union that have no independent legal tender of their own as they have adopted the euro as common currency. Also included in this category is Hong Kong, which has a currency board arrangement. While Norway and Singapore have managed floats, the other eight advanced countries can be described as independently floating.

Shifts away from soft pegs

While the change in exchange rate regimes among the industrial countries over the decade is not so striking, the change among the 33 emerging countries during the corresponding period is remarkable. Countries including Colombia, Indonesia, Korea, Thailand, Russia, Brazil and Mexico became 'managed floaters' after the major crises of the 1990s, including the East Asian currency crisis of 1997. Similarly, at the other end of the continuum, there has been an increase in the number of hard peg countries (with a currency board arrangement or with no independent legal tender or dollarisation).

Among developing economies that are not integrated with global markets and hence not described as emerging, Fischer (2001) observed that the change in distribution of exchange rate arrangements has been similar to that noted in regard to emerging economies. There has been a shift towards hard pegs on one hand and more flexible exchange rate regimes on the other. This confirms the views of scholars and practitioners including Corden (2001) and Summers (2000) that

> …the choice of appropriate regime for economies with access to capital markets increasingly means a move away from the middle ground of pegged but adjustable fixed exchange rates towards the two corner regimes of either flexible exchange rates or a fixed exchange rate supported, if necessary, by a commitment to give up altogether an independent monetary policy (Summers 2000:8).

The reason for economies to move towards more flexible exchange rate arrangements is that soft peg regimes have proved to be crisis-prone and unviable over long periods. Fischer (2001) suggests this is primarily due to the logic of the impossible trinity: a fixed exchange rate, capital mobility and a monetary policy dedicated to domestic goals. In noting the above, Fischer is keen to

Table 1 **Exchange rate arrangements in IMF member countries: small states** (as of 30 June 2000)

Exchange rate arrangements	**Countries**	
No separate legal tender	Another currency	Currency unions
(38; *12*)	Kiribati Marshall Islands Micronesia Palau	ECCU: Antigua and Barbuda Dominica Grenada St Kitts and Nevis St Lucia St Vincent and the Grenadines WAEMU: Guinea-Bissau CFA Franc Zone: Equatorial Guinea Gabon
Currency board arrangements (8; *3*)	Brunei Darussalam Djibouti Estonia	
Other conventional fixed peg arrangements(including de facto peg arrangements under managed floating) (45; *20*)	Against single currency Aruba Bahamas Bahrain Barbados Belize Bhutan Cape Verde Comoros Maldives Qatar Swaziland Trinidad and Tobago	Against a composite Botswana Fiji Malta Samoa Seychelles Solomon Islands Tonga Vanuatu
Pegged exchange rates within horizontal bands (6; *1*)	Cyprus	
Crawling pegs (5; *0*)	None	
Exchange rates within crawling bands (6; *0*)	None	
Managed floating with no pre-announced path (27; *2*)	Jamaica Surinam	
Independently floating (50; *3*)	Guyana Mauritius Sao Tome and Principe	

Note: Small states are defined, as per Word Bank definition, as those having a population less than 1.5 million. Small states here include Jamaica. The first figure in parenthesis denotes the total number of IMF member countries, and the number in italics refers to the number of small states in that category.
Sources: Fischer, S., 2001. Exchange rate regimes: is the bipolar view correct?, Distinguished Lecture on Economics in Government, Meeting of American Economics Association, New Orleans; Hilaire, A.D.L., 2001. Currency arrangements in small states, paper presented at the Conference on Financial Globalisation: issues and challenges for small states, Eastern Caribbean Central Bank, St Kitts, March.

soften what earlier looked like a hard stand, such as that of Summers (2000) and other proponents of a bipolar view that only the two corner regimes are appropriate exchange rate arrangements. He observes that variations are possible but most of them lie in the middle of the continuum, especially the soft pegging regimes that are not sustainable. The statement is further qualified by the observation that for countries open to international capital flows, pegs have to be hard, such as a currency board arrangement or dollarisation.

For others that are not integrated so well with global markets and that have capital controls in place, obviously other pegs including adjustable pegs can still work. Of the many developing economies that have yet to liberalise their financial sectors fully and open up to capital flows from overseas, Frankel (1999:30) observed 'intermediate solutions are more likely to be appropriate for many countries than are corner solutions'.

Currency board arrangements and and dollarisation

The currency board arrangement is an extreme example of a nominal exchange rate anchor. Aside from the country's currency being tied to a particular foreign currency, its monetary authority is required to hold foreign currency reserves to at least cover the entire narrow money supply (de Brouwer 2000; Mishkin 2000; Enoch and Gulde 1997). It should be ready to exchange domestic currency for foreign currency at that rate on request. In this way, both financial markets and the public are assured that every domestic currency bill is backed by an equivalent amount of foreign currency.

The advocates of currency board arrangements contend that automatic stabilisers will prevent any major outflows of the foreign currency. When there is an outflow of money in terms of the anchor currency, money supply decreases and the interest rate rises, which will in turn induce inflows. The exchange rate guarantee under a currency board arrangement ensures that the necessary interest changes will be less and the attendant costs will be lower (Enoch and Gulde 1998).

Therefore, under a currency board arrangement, the central bank cannot pursue an independent exchange rate policy. It cannot, for example, react to a negative terms of trade shock by devaluing its currency. In addition, it cannot use any domestic financial instruments such as the interest rate to stimulate the economy. Instead, economic adjustment can be achieved only through wage and price adjustment, which can be slow and painful if it has to be downwards (Gulde 1999; Balino et al. 1997).

Limitations

Under a currency board arrangement, the central bank cannot follow an expansionary monetary policy at will. Since domestic money supply is determined by foreign reserves, it can expand money supply only by adding to its reserves, for example, by borrowing from overseas. As the latter is expensive, deficit financing is discouraged. The government of the day has to abide by a self-denying ordinance of fiscal discipline. The monetary authority has no ability to monetise fiscal deficits by printing money and thereby cannot cause inflation (Mishkin 2000). Because a currency board arrangement system is rule-bound and transparent, it is protected from political pressure (Henke and Schuler 1994).

The central bank cannot act as a lender of last resort to commercial banks when the need arises. Further, as issuance of domestic currency is limited to the level of foreign reserves held, monetary policy is quite tightly tied to the monetary policy of the foreign country of the anchor currency to which the country's currency is pegged. Thus, a currency board arrangement leads to a stable monetary policy (Duncan et al. 1998).

Stability in monetary policy essentially arises from the rule-based requirement that changes in monetary base will be equal to the country's overall balance of payments surplus or deficit. The attraction is that it gives the country a highly credible mechanism for defending a fixed exchange rate, but it has to abdicate its monetary sovereignty because it has no discretion in regard to its monetary policy (Williamson 1995).

The major advantages of the currency board arrangement that stem from three elements—fixed exchange rate between the country's currency and an anchor currency, automatic convertibility and a long-term commitment to the system (Henke and Schuler 1994; Gulde 1999)—are

- assured convertibility
- macroeconomic stability
- guaranteed balance of payments adjustment mechanism
- low inflation
- confidence in the monetary system, thereby promoting trade, investment and growth.

The disadvantages are obvious—the monetary authority is helpless in the face of adverse overseas and domestic economic shocks and banking crises. It cannot manipulate exchange rates or use domestic financial policies and cannot assist commercial banks in distress.

The currency board arrangement, which is regarded by some as a historical curiosity (Fischer 2001), is certainly a relic of the past (Chandavarkar 1996). In 1960, 38 countries or territories had currency board arrangements. By 1970, when most of the colonial possessions became independent sovereign nations, there were 20 and by the late 1980s there were only nine (Enoch and Gulde 1998). In 2000, eight countries had currency board arrangements. The Eastern Caribbean States, which had currency board arrangements with independent currencies pegged to the US dollar, now fall under the currency union category as they adopted a common currency (the Eastern Caribbean dollar), which is also pegged to the US dollar. Table 2 provides details of eight states, including the three small states of Brunei Darussalam, Djibouti and Estonia, with currency boards.

The revival of interest in currency board arrangements has come in several waves. The successful introduction of a currency board in Argentina in 1991 in stabilising the economy led to its adoption in two transition economies, Estonia and Lithuania, in order to achieve credibility for their newly established currencies. In 1997, Bulgaria followed suit to end its economic debacle. Discussion about potential candidates for adopting currency boards has been broadened in recent years. In 1998, Indonesia was advised to consider this regime as a solution to its currency crisis. Another serious candidate was Russia.

Review of currency board performance

An empirical investigation by Ghosh et al. (1998) confirms the anti-inflationary capability of a currency board. This is the result of a confidence effect arising from faster growth of money demand made possible by greater institutional certainty. Due to its obvious superiority over other options in combatting inflation, the IMF prescribes adoption of the currency board arrangement as part of stabilisation measures for countries that are ravaged by run-away inflation. Examples of its success in this regard include Argentina, Bulgaria, Estonia, Hong Kong and Lithuania. These countries have pursued stable monetary policies due to adoption of currency board arrangements.

In a study on currency boards in Bulgaria, Gulde (1999) referred to the country's pre-currency board situation: near hyper-inflation (310.8 per cent in 1996 and 578.5 per cent in 1997), lavish central bank lending to banks (percentage changes in credit to banks: 122.4 per cent in 1996 and

67.4 per cent in 1997) and excessively high interest rate differentials between nominal rates in Bulgaria and Germany (116.6 per cent in 1996 and 128.6 per cent in 1997) and extreme volatility in exchange rates (313.4 lev / deutschemark in 1996 and 1000 lev / deutschemark in 1997). In an attempt to end the Bulgarian central bank's discretion, the IMF suggested the adoption of a currency board arrangement to bring the levels of inflation and real interest rates in line with those of Germany, the anchor currency.

In the case of Argentina, the early years of the currency board arrangement were 'stunningly successful' (Mishkin 2000:513). After adopting the currency board arrangement in 1991, inflation was brought down from an annual average rate of 800 per cent prior to 1990 to less than 5 per cent in 1994; and economic growth was rapid, averaging almost 8 per cent annually from 1991 to 1994. However, capital flight following the Mexico peso crisis of 1995 resulted in the public pulling out of Argentina's banks as there were concerns about the health of the Argentine economy. Since Argentine pesos were converted into US dollars, money supply in Argentina contracted with a resulting drop in economic activity. GDP declined by more than 5 per cent and the unemployment rate rose to 15 per cent.

Since the monetary authority under a currency board system has no power to pursue monetary policy, Argentina's monetary authority could not meet the contractionary situation stemming from the public's herd behaviour. Further, as it could not 'create' money and lend pesos to the banks, it could not act as a lender of last resort. Only by borrowing from international agencies, including the IMF and the Inter-American Development Bank, an amount of US$5 billion could Argentina shore up its cash-starved banking system, thereby allowing the currency board to survive. Currently, because of the loss of the exchange rate as an instrument of adjustment, Argentina is relying mainly on the much slower process of downward adjustment of wages and prices to deal with external or internal shocks via differential inflation (Fischer 2001).

Gains and losses

It is difficult to make a general *a priori* evaluation of the benefits from and costs imposed by currency board arrangements. Experience shows that for a country with a history of extreme monetary indiscipline, a currency board arrangement is a means of obtaining credibility for monetary policy rapidly and at a low cost. However, the adjustment to external or internal shocks lies through wage and price flexibility, labour and capital mobility and fiscal compensation. Since access to fiscal compensatory measures from abroad and international migration is highly unlikely, internal wage and price flexibility, and labour mobility, need to be promoted at all times for the success of currency board arrangements (Fischer 2001).

To cover loss of the lender-of-last-resort role by the central bank under currency board arrangements, external borrowing from overseas governments or obtaining assistance from the central bank of the anchor currency is suggested (de Brouwer 2000). However, it is proving increasingly difficult, as revealed in the recent negotiations among the US Treasury and the Federal Reserve and Argentina and Ecuador, to place reliance on this mode of bailing out domestic banks (Latibeaudiere 2001).

Goodhart and Schoenmaker (1995) argue that most financial crises have real bases and that the real resources required to solve the crises come from the fiscal authority. Fischer (2001), therefore, stresses that the loss of lender-of-last-resort function by the introduction of currency board arrangements can be compensated for by provision of fiscal resources, a banking sector stabilisation fund as was done in Bulgaria, and ultimately by strengthening financial sector supervision and prudential controls.

Table 2 **Countries with currency boards, 2001**

Country / region	Peg currency	Years in existence
Argentina	US dollar	8
Bosnia and Herzegovina	deutschemark	3
Brunei Darussalam	Singapore dollar	32
Bulgaria	deutschemark	3
Djibouti*	US dollar	50
Estonia	deutschemark	8
Hong Kong	US dollar	16
Lithuania	US dollar	6

* switched peg currency from French franc to US dollar.
Source: Hilaire, A.D.L., 2001. Currency arrangements in small states, paper presented at the Conference on Financial Globalisation: issues and challenges for small states, Eastern Caribbean Central Bank, St Kitts, March.

Dollarisation

Going beyond currency board arrangements, dollarisation is being increasingly suggested by international agencies. They refer to the world's oldest example, Panama (1904), from when the United States began construction of the Panama Canal. The latest example is Ecuador (1 January 2001). Seven IMF member states have dollarised their economies: Ecuador (US$), Kiribati (A$), Marshall Islands (US$), Micronesia (US$), Palau (US$), Panama (US$) and San Marino (US$). Calvo and Reinhart (2000) and Eichengreen and Hausmannn (1999) recommend dollarisation for countries that rely more on capital inflows with focus on asset markets rather than on the current account. Dollarisation has also been recommended for other countries, including the remaining Pacific island countries (de Brouwer 2000).

The gains are much greater than those from currency board arrangements and include

- absence of speculative attacks on the domestic currency, as there is none
- no possibility of a sharp depreciation, and no sudden capital outflows
- elimination of the devaluation risk premium, although sovereign risk remains
- reduction in interest rates spreads between the country and the country of the anchor currency
- no possibility of inflationary finance, hence strict fiscal discipline and macroeconomic stability
- strengthening of the domestic financial system
- closer integration with the country whose currency has been adopted and the rest of the world.

The costs are

- loss of a national symbol
- loss of independence in monetary and exchange rate policies
- loss of support for the domestic banking system in times of crisis
- loss of revenue seigniorage from the issue of currency
- difficulty in exiting dollarisation, compared to other exchange rate regimes including currency board arrangements, where one has a domestic currency to fall back on.

Among the costs, the first three are also part of the costs of a currency board arrangement. The additional costs involved in moving towards the harder peg of dollarisation are loss of revenue from the issue of currency (seigniorage) and costs associated with exit. Recent negotiations between Argentine authorities and the United States on the subject of a formal agreement for dollarisation revealed the US Treasury is not keen to part with a portion of the seigniorage revenue; similarly, neither is the US Treasury nor the Federal Reserve willing to act as lenders of last resort or provide liquidity in support of the banking systems of the dollarised countries (Latibeaudiere 2001). Therefore, one has to weigh the advantages and disadvantages of dollarisation carefully .

The Caribbean experience

Before examining the recommendation made by the Asian Development Bank for a currency board arrangement for Vanuatu, it is useful to refer to the recent experiences of island countries in the Caribbean region because of similarities between the two regions (Fairbairn and Worrell 1996). The island states in the Caribbean region have made much progress in regard to regional monetary union and other related matters. Their efforts gave rise to formation of the Organisation of Eastern Caribbean States (OECS) with a common currency, the Eastern Caribbean dollar, which is pegged to the US dollar. Earlier, the eight OECS states had independent currency board arrangements, with their currencies pegged to the US dollar. Setting up a currency union (ECCU) necessitated the establishment of a central bank known as the Eastern Caribbean Central Bank. Along with the ECCU, there is also a fixed exchange rate regime in Barbados and other countries, and systems that are flexible to varying degrees in Guyana, Jamaica, and Trinidad and Tobago. While the current advocacy of currency board arrangements and dollarisation has begun to influence other authorities in the region towards US dollarisation, there is considerable scepticism regarding currency board arrangements and dollarisation (Hilaire 2000).

The views of Jamaica's central bank governor, Derick Latibeaudiere, on dollarisation are relevant here. He attributed Panama's success to unique circumstances

- geographical and strategic location of the Panama canal, which conferred immense benefits to Panama
- the dominance and importance of its service sector to the economy
- consequently, shocks in the terms of trade of commodities have relatively less impact on Panama's economy
- financial stability in Panama due to its integration with the US economy, beginning nearly 100 years ago, thereby fully liberalising the financial sector (Latibeaudiere 2001).

Regarding Ecuador, which officially switched to the US dollar as legal tender from 1 January 2001, replacing its century-old currency the sucre, Latibeaudiere (2001) referred to the adverse circumstances that damaged the country's monetary stability, including

- decline in growth in 1998 and 1999 with inflation surging to 52 per cent in 1999 and the sucre depreciating by 54 per cent
- worsening macroeconomic conditions in 1999, accentuating banking sector problems culminating in a run on the banks and forcing them to close for a week in March 1999. The freezing of bank demand and saving deposits for six months and time deposits for one year
- unofficial dollarisation that increased to a level where more than 80 per cent of financial assets were held in US dollars, implying that the sucre had virtually ceased to function as a store of value.

As the political situation became critical, the government announced its decision to

dollarise from 1 January 2001. The required legislation was passed in March 2000 with little opposition, as informal dollarisation was already in place and official dollarisation was considered the only means to avoid the virtual collapse of the economy.

Past experiences, including those of Ecuador, indicate that the essential conditions for dollarisation are

- loose monetary policy
- sustained high inflation
- loss of confidence in the domestic currency as a store of value
- money substitution (rise in the ratio of foreign currency deposits to total deposits in the banking system).

Jamaica's central bank governor ruled out dollarisation on the following grounds

- absence of pre-conditions required for dollarisation
- central bank's track record of maintaining monetary stability
- more effective fiscal and monetary policy coordination in recent years
- improved functional autonomy of the central bank.

Since the objectives that dollarisation seeks to achieve—lower inflation and interest rates—could also be achieved under the current framework of independent exchange rate and monetary policies, and also without losing seigniorage revenue, Jamaica was not in favour of dollarisation (Latibeaudiere 2001).

Vanuatu: the case for a currency board arrangement

The case for a currency board arrangement for Vanuatu has to be examined in the context of its past and present macroeconomic health and the status of its monetary stability. Vanuatu's economic performance until 1995 has been described as satisfactory (Knapman and Saldanha 1999). Average annual growth in real GDP of 3 per cent was achieved in a stable macroeconomic environment in which the inflation rate was around 4 per cent. During this period, external balance was sustainable and fiscal deficits were small (Table 3).

During 1996–98, there was some slowdown in economic activity, notably construction and manufacturing, and tourism as a consequence of the East Asian financial crisis of 1997. The decline in exports of traditional commodities such as copra, beef, timber and cocoa compounded the situation. Growth in real GDP declined from 3.5 per cent in 1996 to 0.6 per cent in 1997 and 0.2 per cent in 1998. In 1999, the growth rate was –2 per cent.

A report alleging mismanagement of the Vanuatu National Provident Fund (VNPF) in early 1998, which was preceded by reports by the Ombudsman of corruption in high places during 1997, sparked riots in Port Vila in January 1998. To satisfy the subscribers to VNPF, the government allowed unconditional withdrawals of retirement savings. About 90 per cent of subscribers applied to withdraw amounts totalling about 3,600 million vatu, about 10.5 per cent of both GDP and broad money. About 2,400 million vatu or 70 per cent of these funds were disbursed during the period February to April 1998, while the remainder was disbursed in the final months of the year. This large disbursement was made possible with government assistance—the VNPF could only provide 1,100 million vatu through liquidation of its holdings of government bonds. Thus, the government incurred an unexpectedly large fiscal deficit.

Since Vanuatu has no exchange controls with full freedom for its citizens and foreign residents to keep their funds in deposits in the banks, in both vatu and any foreign currency, VNPF's large pay-out of retirement savings presented problems of unprecedented proportions to the central bank, the Reserve Bank of Vanuatu. Excess

liquidity in the economy led to serious doubts about the bank's capability to supply foreign exchange at the prevailing exchange rate. In addition, fears about the health of the economy in the face of political instability led to capital flight from Vanuatu.

Monetary and fiscal policy response

The Reserve Bank of Vanuatu reacted to the rapid depletion of official foreign reserves by devaluing the domestic currency in March 1998. As this decision was not to the liking of the government, it was annulled within 24 hours (Jayaraman 2001a). Following the removal of the Reserve Bank Governor, exchange control measures were introduced for the first time. These were in the form of guidelines that stipulated that all foreign exchange requests to the Reserve Bank must be related to current transactions only and that the commercial banks must settle capital transactions with their own foreign exchange resources. Open market operations were initiated in late March 1998 to absorb excess liquidity in the system, with the sale of Reserve Bank Notes. By mid April 1998, when official foreign reserves fell as low as two months of import cover, the Reserve Bank responded by announcing a 5 per cent increase in interest rates, effectively fending off speculative activities. In addition, an effective devaluation of the vatu was engineered by changing the weights of the undisclosed transactions-weighted (trade and tourism receipts) basket of currencies to which the vatu was linked (Reserve Bank of Vanuatu 2000).

Furthermore, the Reserve Bank undertook measures including replacement of the statutory reserve deposit (SRD) ratio with a prescribed reserve asset (PRA) requirement of 16 per cent at the end of April 1998. These measures proved effective, with

Table 3 **Vanuatu: macroeconomic indicators, 1994–2000**

	1994	1995	1996	1997	1998	1999	2000
Real GDP growth rate (per cent)	2.6	3.2	3.5	0.6	0.2	2.0	4.0
Inflation (per cent)	2.3	2.2	0.9	2.8	3.9	2.5	3.9
Fiscal balance (per cent of GDP)	–2.7	–5.6	–3.5	–2.7	–10.3	–1.2	–6.1
Growth rate in reserve money (per cent)	–7.8	30.4	–5.0	0.9	0.8	18.0	6.6
Growth rate in broad money(per cent)	4.7	11.6	10.1	–0.3	12.6	–9.2	5.5
Foreign reserves, including gold							
(US $ million)	43.58	48.29	43.92	37.3	44.67	37.7	34.8
(months of imports)	7.4	7.6	5.6	4.5	6.1	5.4	5.8
Exchange rate (vatu / US$)	112.08	113.74	110.77	124.31	129.78	128.89	137.82
Growth rate in merchandise exports (per cent)	5.5	9.0	6.1	21.4	5.8	23.0	9.7
Growth rate in merchandise imports (per cent)	8.6	2.5	2.1	3.1	3.9	6.7	7.7

Sources: Asian Development Bank (ADB), 2000a. *Asian Development Outlook*, Asian Development Bank, Manila; Asian Development Bank (ADB), 2000b. *Key Indicators*, Asian Development Bank, Manila; International Monetary Fund, 2000. *International Financial Statistics Yearbook 2000*, International Monetary Fund, Washington, DC; Reserve Bank of Vanuatu.

a quick and steady return to monetary stability. Official reserves improved to six months of import cover by the end of 1998, more than the previous two years' figures but less than the previous high of 7.5 months of import cover of the mid 1990s (Reserve Bank of Vanuatu 2000). In February 2000, as official reserves fell close to the equivalent of six months of imports, guidelines on foreign exchange were reintroduced. Subsequently, as the reserves position returned to a comfortable level, they were relaxed (Reserve Bank of Vanuatu 2000).

In November 1998, the Reserve Bank of Vanuatu lowered the PRA requirement to 10 per cent and reintroduced the SRD ratio at 6 per cent. At the close of December 1998, the Reserve Bank introduced two new facilities—rediscounting and repurchase agreement facilities. Finding the SRD ratio more effective than the PRA requirement, the Reserve Bank abolished the latter, and raised the SRD ratio from 6 per cent to 10 per cent effective 1 April 1999. The new SRD ratio encompassed both vatu deposits and one-half of demand deposits in foreign currency (Reserve Bank of Vanuatu 2000).

On the fiscal front, prudent budgetary management brought down the budget deficit of 10.3 per cent of GDP in 1998 to 1.2 per cent of GDP in 1999. This was also facilitated by restructuring the tax system by shifting from trade taxes in favour of a value-added tax. The 2000 Budget provided for a balanced recurrent budget and capital budget with a deficit of 3 per cent of GDP, with external grants financing most of the development expenditure. Although the fiscal deficit was higher in 2000 than in 1999, it was not inflationary because private investment had been low and there was no crowding out by the public sector. Inflation was lower than 4 per cent and there was no evidence of balance of payments pressures, since foreign reserves were at an adequate level of nearly six months of import cover (Table 3). The economy picked up in 2000, registering a GDP growth rate of 4 per cent.

The case for a currency board

The Asian Development Bank's recommendation for a currency board arrangement (Knapman and Saldanha 1999) seems to have been based on the poor economic health of Vanuatu during 1997–98—a performance that was largely due to poor performance of public sector institutions in the financial sector, including the mishandling of VNPF funds. There was also a high proportion of non-performing loans by the now defunct government-owned Development Bank of Vanuatu, and a similarly weak performance by the government-owned commercial bank, National Bank of Vanuatu (NBV). Better supervision and control by the Reserve Bank of Vanuatu over the National Bank of Vanuatu as well as greater control over non-bank financial institutions by government, would have avoided the financial debacle (Jayaraman 2001b).

The currency board arrangement was not discussed by the ADB at any stage prior to the processing of its loan for a comprehensive reform program (CRP), which was approved in June 1998. Earlier stages included various studies by consultants and consultative meetings with certain segments of society and summits, which were open to the public. In fact, the term 'currency board arrangement' appeared for the first time in the study by Knapman and Saldanha (1999). While referring to the weak capacity for monetary management as one of the remaining challenges, Knapman and Saldanha (1999) stressed the need for institutional strengthening of the Reserve Bank of Vanuatu and observed that the concept of a currency board arrangement was worthy of investigation. Nowhere in their report was any attempt made to discuss and evaluate the implications of a currency board arrangement for Vanuatu.

The case for currency board arrangements and dollarisation in the island countries was recently examined by de Brouwer (2000) in the *Pacific Economic Bulletin*

on a common currency for the Pacific island nations. In addition to the list of benefits flowing out of a currency board arrangement or dollarisation, specific gains to the island countries that he identified include

- a stabilising force in the midst of external shocks arising out of narrow export structures and other supply shocks, such as bad weather, crop failure and political disturbances
- elimination of the high costs of running central banks, in terms of the high opportunity cost of hiring skilled people and in terms of policy failures
- avoidance of the stresses involved in maintaining central bank independence.

De Brouwer (2000) suggested the Australian dollar as the anchor currency for a common currency union, as it is the seventh-most traded currency in the world and offers substantial liquidity. After conducting an evaluation based on the criteria of an optimal currency area such as similarity in economic circumstances, and trade, industry and financial structures as well as adjustment processes (Mundell 1961; McKinnon 1963; Kenen 1969), de Brouwer (2000) concluded that there are no strong grounds for forging such an union. Past trading patterns reveal that the island countries' exports to Australia are about 21 per cent of total exports, their imports from Australia comprise 33 per cent of the total, and the economic structures of Australia and the Pacific island countries are dissimilar. The finding confirms Corden's (2001) view that small island countries in the Pacific do not fulfil the criteria of optimal currency areas. The argument that common currency arrangements would eventually bring about similarity in structures and economic policies (Scitovsky 1958) is at best a tenuous one. Experience indicates currency unions in the Caribbean region and elsewhere have been formed on the strength of similarity in structures and convergence criteria rather than on future likely similarities.

Economic adjustments under currency board arrangements or dollarisation, in the absence of the exchange rate as an instrument, depend on downward flexibility in wages and prices, labour mobility and fiscal transfers (Fischer 2001). De Brouwer (2000) has pointed out that none of these conditions exist in the Pacific islands. While downward movement in prices and wages has been traditionally sticky, labour mobility within the island nations or among the island states, or between the island countries and Australia, has never been substantial. There are no indications to suggest significant improvements in the near future in this regard. With reference to fiscal transfers, although annual development assistance to the Pacific islands has been a regular feature of Australian budgetary policies, it is difficult to foresee a political agreement for formal fiscal transfers in the future, especially when there is a declining trend in aid flows and most of the aid is now tied to projects or programs, rather than budgetary support. It would be equally difficult to expect Australia to agree on a transfer of funds on an annual basis to the island countries to compensate for the loss of seigniorage revenue in the event of the dollar being adopted by them as legal tender, especially with the discouraging outcomes of recent negotiations between Argentina and Ecuador and the US Treasury and the US Federal Reserve (Latibeaudiere 2001).

Although the case for a currency union for the Pacific islands as a whole does not appear to be strong, some island nations might prefer, on an individual country basis, to opt for a currency board arrangement with the currency firmly pegged to the dollar or prefer to dollarise by adopting the dollar. The past experiences of Kiribati, Marshall Islands, Micronesia, Palau and Tuvalu, which have adopted the Australian dollar or the US dollar as legal tender, would serve as a guide. Table 4 gives a comparative picture of economic performance of Pacific island countries.

Experience indicates that no single exchange rate or monetary arrangement is superior to the other, as inflation in the dollarised economies is not always lower. As regards Vanuatu, its past five-year average annual rate of inflation of (2.5 per cent) is lower than that of any of the dollarised Pacific island countries, including Tuvalu's rate of 2.8 per cent, which is the lowest. It would, therefore, be hard to argue that changing the exchange and monetary arrangements in any of the countries in the region would necessarily reduce financial and other risks and promote development (Rosales 2001).

Thus, recent economic indicators do not indicate the macroeconomic ill-health of Vanuatu being anywhere close to that of the once inflation-battered economies of Argentina, Bulgaria or Ecuador. Vanuatu's budget deficits and inflation in recent years have been sustainable and low, except in 1998, which was a year of unprecedented crisis in confidence. Stability of the exchange rate has been restored without any serious balance of payment pressures. Prudent management of official foreign reserves has necessitated the reimposition of guidelines on foreign exchange transactions, which were for the first time imposed in 1998 and subsequently withdrawn as the position improved when changes in government were in the air. The year-end official foreign reserves position in 1999 and 2000 was comfortable in terms of import cover.

On the fiscal front, with the release of the final tranche of US$5 million by the ADB for

Table 4 **A comparative picture of Pacific islands' economic performance** (average of five years: 1995–99)

Category	Average GDP growth rate (per cent)	Overall fiscal balance (per cent of GDP) excl. grants	incl. grants	Inflation (per cent)	External current account (per cent of GDP)	Growth in M2 (per cent)	Foreign reserves (import cover, months)
Countries with no separate legal tender							
Kiribati	4.3	–37.6	–3.4	2.0	17.1	-	-
Marshall Islands	–5.1	–31.8	11.8	4.9	–0.7	-	-
Micronesia	–0.5	–46.4	–0.9	5.6	7.9	-	-
Palau	4.7	–30.8	17.5	3.5	22.2	-	-
Tuvalu	5.3	–15.2	4.1	2.8	5.8	-	
Countries with currencies pegged to a basket							
Fiji	2.1	–3.7	–3.5	3.2	0.9	–0.1	6.1
Samoa	4.7	–10.7	1.1	2.2	6.3	12.3	7.4
Solomon Islands	2.3	–16.2	–3.4	9.8	2.4	8.7	2.2
Tonga	2.3	–2.4	–1.2	3.3	–5.0	11.3	5.1
Vanuatu	1.7	–5.6	4.7	2.5	2.1	5.0	5.8
Country with a flexible exchange rate							
Papua New Guinea	0.2	–6.6	-2.1	12.9	3.9	11.9	3.2

Sources: Rosales, J.R., 2001. Macroeconomic policy and financial sector stability in Pacific island countries, paper presented at the Conference on Financial Sector Stability and Development, Apia, February; ADB, 2000a. *Asian Development Outlook*, Asian Development Bank, Manila; ADB, 2000b. *Key Indicators*, Asian Development Bank, Manila.

the CRP loan in December 2000, Vanuatu's budgetary position has improved. Tax reforms, aimed at enlarging the presently narrow revenue base, including the introduction of a tax on incomes, are now receiving attention. In the banking and financial sector, much progress has been achieved. The poorly performing, government-owned Development Bank of Vanuatu was closed in 1998. The VNPF has been restructured and, after many years of deficits, it began to earn a surplus in 2000. Under the Financial Institutions Act enacted in 1999, the Reserve Bank of Vanuatu has been empowered to supervise all financial institutions, including credit institutions (Reserve Bank of Vanuatu 2000).

Echoing the words of the Bank of Jamaica's Governor (Latibeaudiere 2001), it can be said that the conditions warranting adoption of a currency board arrangement or dollarisaton for Vanuatu are absent. Vanuatu has not pursued inflationary monetary policies in the past and the economy as a whole has not lost confidence in its currency, the vatu. Citizens and foreign residents alike have full freedom to hold deposits in vatu as well as in foreign currencies. There has not been any significant money substitution in terms of an increase in the proportion of foreign currency deposits to total deposits. The proportion of foreign currency deposits in total deposits in the banking system has been steady—around 65–66 per cent throughout the last 10-year period. In 1989, it was 66.4 per cent and in 1998, when the VNPF crisis occurred, it was 65.7 per cent; in 1999, it was 64.7 per cent and 66 per cent in 2000.

Summary and conclusions

The crisis of 1998, which seems to be the reason behind the recommendation for the currency board arrangement, was more due to an extended period of weak economic and financial management and poor governance since 1995 (Jayaraman 1998, 2001a, 2001b; Huffer and Molisa 1999). The solutions are obvious—better governance, efficient economic and financial management, and public sector reforms. The ADB-funded comprehensive reform program, which began in 1998 and was completed with the release of the final tranche on 15 December 2000, has already addressed some of these issues. There is also an increased awareness of the need for continuous attention to these issues.

The response of the Reserve Bank of Vanuatu to the monetary crisis was swift and appropriate. A combination of increased interest rates and exchange controls as part of anti-inflationary and anti-capital flight monetary stances proved effective. The open market operations for mopping up excess liquidity through Reserve Bank of Vanuatu Notes since April 1998 have remained part of indirect monetary policy instruments. On the basis of the past relatively low inflation, as well as a sensible monetary policy stance, a currency board arrangement would not be necessary.

One recalls a parallel situation in Papua New Guinea. In a study on Papua New Guinea, Duncan et al. (1998) did not recommend a currency board arrangement. In their assessment, Papua New Guinea followed sensible monetary policies and there was no reason to believe that the monetary authority would change its policy stance. Further, as trade constitutes a large proportion of both domestic consumption and production, and as much of this trade is in primary commodities with volatile prices, the effectiveness of a currency board arrangement would have had to depend on downward flexibility in wages and prices. In the context of market rigidities, compounded by minimum wage legislation, these shocks could be more easily handled through changes in the nominal exchange rate (Duncan et al. 1998).

The recommendation of a currency board arrangement for Vanuatu by Knapman and Saldanha (1999) appears to be too

radical. The grounds of weak monetary management and lack of technical skills do not seem to warrant such an 'invasive surgical procedure' as a currency board arrangement, when simple and equally effective remedial measures of technical assistance and guidance in bank supervision are now increasingly made available through the presence of the IMF's Pacific Financial Technical Assistance Center.

This, however, does not mean that the Pacific island nations should not consider changes in exchange rate arrangements. As Frankel (1999) argued, no exchange rate arrangements are suitable for all times—they have to be reviewed in the light of any future changes in structure of trade. These are likely when current negotiations on a Pacific free-trade area take shape. Similarly, improvements in capital inflows in response to the implementation of the ongoing financial sector reforms and better supervision and prudential control over both banking and non-banking financial institutions would also warrant a reconsideration of exchange rate regimes.

With the implementation of more critically required real sector reforms—such as those in the area of factor pricing, including land and labour, and those promoting higher mobility of labour and greater flexibility in prices and wages, along with improvements in economic and political governance—there will emerge in the medium term, a more appropriate environment for considering an economic union, or at least a monetary union, among the Pacific island nations. Until then, a currency board arrangement or dollarisation, if implemented as pre-emptive measures to meet a future crisis, could only be of limited value to Vanuatu.

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Acknowledgments

The author is indebted to an anonymous referee for constructive comments and suggestions. The author also thanks Mr Simeon Athy, Director, Research Department, Reserve Bank of Vanuatu, Port Vila for his comments on an earlier version of this article.