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WORKING PAPER

Monetary Policy Response of Pacific Island Countries to Global Economic Downturn

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No. 2009/06 July 2009

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Monetary Policy Response of Pacific Island Countries to Global Economic Downturn

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Abstract

The financial crisis in USA in late 2007 led to fall in economic activities in the industrialized countries. A global recession was triggered, with resulting decline in imports from Pacific island countries (PICs) and falling tourism earnings. Monetary policy options, which are available to six PICs with independent currencies, are explored. Except PNG, which switched on to a flexible exchange regime in 1994, the other five PICs namely, Fiji, Samoa, Solomon Islands, Tonga and Vanuatu, have fixed exchange rate regimes. The policy response has to vary with the nature of exchange rate regimes. An evaluation of the measures undertaken so far by the central banks of the six PICs is attempted.

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I. Introduction

The Pacific island countries are now experiencing the impact of the on-going Great Recession- a term coined by the United Nations to distinguish it-from the Great Depression of the last century. The current recession is the product of three crises (UN ESCAP 2009). These three crises are: (i) volatility in and surging food and fuel prices in early 2008; (ii) the financial crisis in the advanced countries; and (iii) the climate change calamities. The first one precipitated rapid depletion of foreign exchange reserves of Pacific island countries (PICs), all of which are highly dependent on imports of food and fuel, with their limited export earning capacity confined to a narrow range of exports, with the exception of Papua New Guinea (PNG).

The financial crisis, which was in the first place ignited by the sub-prime mortgage loans in the US, then followed by loan defaults and burst of property prices bubble, all beyond the control of PICs, led to fall in economic activities in the industrialized countries and consequent decline in imports from PICs. The climate change calamities of early 2008, which included cyclones and flooding, inflicted severe damages to infrastructure and destruction of farms in PICs causing steep decline in production for subsistence living.

This paper analyses the monetary policy options open to six PICs, which have independent currencies under different exchange rate regimes. Except PNG, which switched on to a flexible exchange regime in 1994, the other five PICs namely, Fiji, Samoa, Solomon Islands, Tonga and Vanuatu, have fixed exchange rate regimes. The policy response naturally has to vary with the nature of exchange rate regimes. Our analysis, accordingly, undertakes an evaluation of the measures undertaken so far by the central banks of the six PICs.

II. Growth forecasts

The growth forecasts for 2009 in the advanced countries indicate contraction by 2.8 percent in the United States, 1.4 percent in Australia and 2.0 percent in New Zealand (IMF 2009. The declining number of jobs and employment opportunities and incomes in these countries, with whom PICs have trade relations, will have negative flow-on-effects to the economies in the region (ADB 2009). Aside from fall in exports to these rich countries, there will also be a fall in tourist arrivals. It was estimated earlier that there would be a decline in tourist arrivals in 2009 by 5.5 % for all PICs. However, the latest report by ADB (2009) reveals that on a year-on-year basis, total arrivals from Australia and New Zealand decreased by 13 percent as of March 2009.

Fall in tourism earnings

It is further forecast that Fiji would suffer a greater setback in tourism, than initially expected, despite its recent devaluation of its currency by 20%. Political developments in April 2009, which included sacking of judges, abrogation of the Constitution and a clampdown on the Press and other restrictions on individual freedoms, have been seen as serious impediments to growth in tourism. About 29.8 percent decline in tourism is forecast for Fiji (ADB 2009).

Although soon after the December 2006 coup, Vanuatu seems to have been benefited from the diversion of tourist traffic away from Fiji in 2007 and 2008, the short-run outlook for 2009 is not encouraging. In the context of forecasted contraction in the two neighbouring countries of Australia and New Zealand, tourist arrivals as well as their spending are expected to decline. (Reserve Bank of Vanuatu 2009).

Decline in remittances

As regards inward remittances the prospects for Samoa and Tonga, which contribute about 25 percent of their GDP, are not bright due to deterioration in job markets in US, Australia and New Zealand. The US unemployment rate was high at 8.9 percent in April 2009. In New Zealand, it reached a 6-year high at 5.0 percent in March 2009 and in Australia it was 5.7 percent in March 2009. With rise in joblessness, the overseas Samoan

and Tongan residents are less likely to keep up the past tempo in remitting funds back home in months to come. The seasonal employment programmes for unskilled, farm labour from Tonga and Vanuatu are however, expected to alleviate the situation to some extent in these two PICs.

Decreasing exports and falling commodity prices

The global economic downturn with declining demand for mineral and non-mineral products has also ended the commodity boom. Two PICs were immensely benefited by the high prices in the commodity market. It aided spectacular growth in GDP in PNG in 2007 (6.7 percent) and in 2008 (7.3 percent); and in Solomon Islands in 2007 (10.3 percent) and in 2008 (7.0 percent). While PNG's exports are more diversified with petroleum and gas and other mineral products along with agricultural exports including coffee, cocoa and tea (about 95 percent of export earnings), Solomon Islands' exports were more in terms of timber (70 percent of export earnings) and palm oil. With fall in demand for both mineral and non-mineral agricultural exports combined with drop in prices, both PNG and Solomon Islands would not be able to maintain the same past level of export earnings and growth rates, as experienced in the recent three years. In PNG, the kina export price index declined by 32 percent in the final quarter of 2008 (ADB 2009). Fall in log export price in Solomon Islands is likely, as signs of contraction in log importing advanced counties are clear.

Table 1; PICs: Forecast for 2009					
	Growth Rate Balance Cover Balance (% of GDP)				
Country	(percent)	% of GDP 2008	Months 2009- Qr1	(% of GDP) 2009	Revised (May) 2009
Fiji	-0.5	-35.8	2.7	-3.0	-5.0
PNG	4.0	32.5	10.9	-2.9	-5.0
Samoa	-1.0	-43.1	4.8	-5.5	NA
Sol.Is	2.2	-20.5	2.5	-3.7	NA
Tonga	-2.0	-52.3	4.7	1.0	NA
Vanuatu	3.5	-43.3	5.4	0.9	NA

Source : ADB (2009)

It was once held that since the financial sectors in PICs are insulated from the global financial crisis, PICs could possibly escape the impact of crisis. The second and third round effects of the financial crisis downturn are now fully felt, resulting in aggregate demand and fall in incomes in the originating economies, being transmitted to the rest of the world. The PICs are no exception. Table 1 presents the forecasts of PICs.

III. Response to the crisis

Response to the crisis in terms of countercyclical action against decline in aggregate demand depends upon whether the country concerned has got any scope for expansionary policies, fiscal or monetary. The greater challenge is to ensure that spending on social protection is not compromised. While developed countries can consider and strengthen their social safety-nets, which include both unconditional and conditional cash transfers to poor households, and public works programmes (Ravallion 2008), there is limited scope in developing countries, since they have little fiscal or current account leeway (Hostland 2008). Further, many developing countries are facing much higher inflation rates, pressure on exchange rates to depreciate, and an outflow of international capital (Naude 2009). The PICs are no exception.

The expansionary policies, in terms of fiscal stimulus and monetary easing, cannot be exactly replicated in PICs, since not all of them have any leeway for expansionary monetary or fiscal policies. There are limitations, which stem forth from the already entrenched constraints to macroeconomic management in PICs¹. Except PNG, and Vanuatu, all PICs have been running budget deficits in the last five years (Table 2). Any attempt to raise domestic aggregate demand by running fiscal deficits with a view to

¹ The Monetary Policy Statement of Central Bank of Solomon Islands (CBSI) released on 17 May 2009, indicating the monetary policy stance for next six months duly recognized the limitations. The CBSI Governor made it clear thus: "It would not however be appropriate for Solomon Islands to implement such a program at this juncture as the cost would be prohibitive, it would encumber the nation with further debts and provide very little boost to the economy given the supply constraints of the economy and the dependence on foreign demand" (CBSI 2009).

offsetting declines in external demand will have disastrous effects and can only be inflationary, unless there is effective trimming of their budgets for 2009.

Table 2: Budget Balances in Five PICs						
	2005	2006	2007	2008	2009(May)	
Fiji	-3.4	-2.9	-1.3	-1.5	-5.0	
PNG	0.0	3.1	2.5	1.0	-5.0	
Samoa	0.3	0.3	1.1	-3.2	NA	
Solomons	2.5	1.5	-1.1	-5.8	NA	
Tonga	2.4	1.5	1.5	2.0	NA	
Vanuatu	2.1	1.2	-0.3	6.3	NA	

Source: ADB (2009), UN ESCAP (2009)

Fiscal stimulus: fear of twin deficits

Fiscal stimulus efforts will only widen prevalent trade deficits (Table 3) and current account imbalances (Table 4). They will exercise further pressures on exchange rate by resulting drains on limited international reserves level, unless there are supportive measures in place. These are: (i) undertaking more vigorous revenue collection efforts; (ii) effecting changes in the current expenditure composition by cutting wasteful expenditures and ambitious projects; and (iii) diverting the saved resources towards labour intensive and quick yielding projects including rehabilitation and upgrading infrastructure. While effecting these critical changes, governments should continue to keep in mind the interests of the already affected vulnerable section of the society.

Table 3: Trade Balance (% of GDP)						
2005 2006 2007				2008		
Fiji	-25.5	-29.3	-30.4	-32.6		
PNG	36.6	39.5	32.4	34.8		
Samoa	-41.1	-45.8	-39.8	-44.8		
Solomons -4.2 -12.3 -9.4 NA						
Tonga -40.5 -44.6 -38.3 -43.9						
Vanuatu	-22.5	-26.9	-31.7	-34.4		

Source: ADB (2009), UN ESCAP (2009)

Table 4: Current Account Balance (% of GDP)								
	2005 2006 2007 2008							
Fiji	-14	-22.5	-15.5	-21.3				
PNG	PNG 4.2 2.9 4.3 3.3							
Samoa -6.6 -10.8 -4.6 -7.8								
Solomons -9.8 -5.6 -2.8 -6.8								
Tonga -2.6 -9.7 -10.4 -10.4								
Vanuatu	-7.4	-5.7	-9.9	-11.4				

Source: ADB (2009), UN ESCAP (2009)

Table 5: Inflation: Selected PICs : 2005-2009						
	2005 2006 2007 2008 2009(May)					
Fiji	2.4	2.5	4.3	7.5	5.5	
PNG	1.8	2.4	0.9	10.6	10.2	
Samoa	1.8	3.7	5.6	6.5	12.4	
Solomons	7.3	11.2	7.7	15.1	17.8	
Tonga	9.9	7.3	5.1	10	12.2	
Vanuatu	1.2	2	3.9	4.5	5.8	

Policy makers should be aware of the need for fiscal restraint, when planning to spend the saved resources for a rainy day. PNG learnt the bitter lessons from the past boom-bust cycle episode of the 1990s and has now had its windfall gains from commodity boom invested in trust accounts and there is optimism that the history of the Lost Decade would not be repeated (Kamit 2009). Vanuatu pursued wise budget policies, which yielded budget surpluses in a row during 2004-2008. However, the fears of wastage are always present, when governments become enthusiastic with an eye on winning the next elections and get tempted to pursue expansionary policies of doubtful quality, as compensatory policies to promote domestic aggregate in the face of a fall in foreign demand. The note of caution struck by PNG's central bank Governor is timely, which deserves full attention of the finance ministries in all PICs.

Borrowing options

In most of the PICs, major investment projects are being funded either by bilateral grants or multilateral grants such as from European Union and by loans on concessional terms from Asian Development Bank and World Bank. The bilateral funding in greater amounts might not be readily forthcoming in the current circumstances, as the advanced economies are themselves in a resource constrained situation².

Supplementing domestic resources with external borrowing is certainly an option open to all PICs, whose external debt levels are relatively low (Table 6). Further, all PICs except Fiji are eligible to borrow on concessional terms from international lending institutions including ADB. The external debt burden in terms of repayment obligations over a fairly long period of 30 is small, as indicated by the debt service ratio. The ADB has already announced a scheme of financial assistance by way of short-term loans to its member countries³ (ADB 2009). Fiji, which is not eligible for loans on concessional terms as it belongs to lower middle income country, floated its first ever international bond for US\$159 million. It was a successful issue as it was oversubscribed, thanks to a then favorable rating by Standard and Poor's and Moody's. In the changed circumstances of today, a repeat of the same effort would not be possible⁴.

Table 6: Public Debt in PICs					
Total External					
Debt Debt					
in in					

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² The World Bank President made a passionate plea to advanced countries to earmark 0.7 percent of their fiscal stimulus packages to developing countries and contribute to a fund administered jointly by the World Bank and other regional development banks.

³ In May 2009, ADB announced establishing a US \$3 billion Countercyclical Support Facility (CSF) that will provide short term loans faster, and cheaper special program loan facilities, aiming at supporting its member countries' fiscal spending to counter the crisis, if they lack the financial means to do so amid tight global credit conditions and a sharp increase in funding costs. Additionally, it will also make available a further \$400 million under Asian Development Fund (ADF) Facility for providing concessional loans to poorer member countries, which include all PICs except Fiji being a middle income country. The ADF resources are available to eligible countries through loans and grants. The resources will provide crucial budget support and funds to finance key development projects in poorer countries that are among the most fiscally constrained in responding to the crisis.

⁴ The international credit rating of Fiji by Moody's has since become unfavourable due to a combination of various factors. The ratings of 9 different categories, namely Outlook, Foreign Currency (FC) Issuer Rating, Local Currency (LC) Issuer Rating, FC Long Term (LT) Debt, LC LT Debt, Country Ceiling LT Foreign Bank Deposit, Country Ceiling LT FC Deposit, Country Ceiling ST Foreign Bank Deposit, and Country Ceiling ST FC Deposit have been downgraded from the ratings of Stable, Ba2, Ba2, NR, Ba2, Ba3, Ba1, NP and NP in 2006 (June) to Negative, B1, b1, B1, B1, B2, Ba3, NP and NP in June 2009 respectively.

	2008 (% of GDP)	2008 (% of GDP)
Fiji	48.0	15.3
PNG	29.0	13.3
Samoa	NA	31.2
Sol. Is	43.0	22.1
Tonga	33.8	29.3
Vanuatu	29.4	20.7

Source: ADB (2009), UN ESCAP (2009)

Table 7:	Official International Reserves					
	Target Months of Import Cover	Actual Months of Import Cover End 2007	Actual Months of Import Cover End 2008	Actual Months of Import Cover May-09		
		2001	2000	may oo		
Fiji	4.0	4.4	2.9	NA		
PNG	5.0	13.0	10.9	9.1		
Samoa	5.0	4.7	4.4	4.3		
Sol Is.	3.0	3.7	2.5	2.1		
Tonga	5.0	4.4	4.8	4.7		
Vanuatu	4.0	7.0	5.8	5.4		

Source: ADB (2009), UN ESCAP (2009)

On the other hand, PNG and Vanuatu have built up a fairly high level of international reserves through commodity boom in the case of PNG and through prudent fiscal policies in the case of Vanuatu (Table 7). It is estimated that PNG's and Vanuatu's international reserves are equivalent respectively to an import cover of 10.9 months and 5.4 months respectively. Additionally, PNG has been carefully managing its finances with low fiscal deficits (below 3 percent of GDP); and Vanuatu's budgets have been running surpluses in a row since 2004. Consequently, therefore, both PNG and Vanuatu can afford to embark upon some fiscal initiatives of their own, However they have been well advised by their respective central banks that any payouts in terms of rise in wages should be avoided, as

it only encourages consumption, which normally spills over into demand for foreign goods and assets.⁵

IV. Monetary Policy Response

An easy monetary policy, either in on its own or in combination with an expansionary fiscal policy, is clearly ruled out in all PICs. Although fall in food and fuel prices fell in the later part of 2008, providing much relief to consumers and policy makers as overseas inflation rates fell (Table 5), the ever likely volatility in prices cannot be ruled out. The challenge before the central bankers in all PICs is "how to balance stimulation of growth in an environment where inflation is a threat" (Scanlan 2009). Secondly, all PICs, including PNG which has a managed float, target international reserves (Table 7). Specifically, monetary policies of the five PICs, other than PNG target nominal exchange rate as an anchor. Expansionary monetary policies would only aggravate inflationary pressures. Rise in private sector credit in Fiji, Solomon Islands and PNG was responsible for overheating the economy until late 2006. Although PNG has a flexible exchange rate regime, it does not rely on exchange rate as the only adjustment mechanism readily available to all flexible exchange rate regimes. A stable exchange rate or even preferably appreciation of exchange rate would be a buffer against inflation. In fact, since the outbreak of the financial crisis, the Central Bank of Samoa allowed its currency to appreciate to provide some cushion against imported inflation (Scanalan 2009).

Secondary role

Monetary policy at its best can play only a secondary role in PICs. It has to be watchful of the country's reserves. Any easing of monetary conditions by reducing interest rate for promoting private sector activities without reference to the impact of fiscal spending would fan growth in credit and result in higher imports, leading to widening trade deficits. Reserves of all five PICs are below targeted levels: Fiji: import cover of 2.7

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⁵ Recalling the adverse effects of past spending spree during the "Lost Decade" of the 1990s, PNG's central bank Deputy Governor warned his government: "We have to avoid this. We may be going through this cycle again" (Bakani 2009). The monetary policy statement issued by Central Bank of Solomon Islands (CBSI) in May 2009 also stressed the need for fiscal restraint (CBSI 2009).

moths against targeted level of 4 months; Solomon Islands: import cover of 2.1 months as against the targeted level of 3 months; Tonga: 4.7 months of import cover as against the target of 5 months. Only in Samoa, import cover of reserves equivalent were slightly higher by February 2009 at 4.3 months as against the targeted rate of 4 months.

Aside from keeping a watch on reserves, inflation would be another guiding indicator. Only if inflation is below the normally targeted level of 3 to 4 percent, could any monetary expansion be thought of. Already inflation is high in all countries: 10.2 percent in PNG; 12.4 percent in Samoa; 17.8 percent in Solomon Islands; and 5.8 percent in Vanuatu. In Tonga, there has been a rapid fall in inflation: from 12.8 percent in May 2008 to 2.5 percent in May 2009. It was mainly due to weaker New Zealand dollar, the main source country for Tonga's imports and fall in oil price. In Fiji, although inflation in regard to all items was less than 1 percent in May 2009, prices of food items were recorded at 5.5 percent (ADB 2009, Reserve Bank of Fiji 2009).

Cautious monetary policy stance

Three PICs (PNG, Solomon Islands, and Tonga) recently decided to continue their cautious monetary stance of not relaxing the tightening conditions they adopted in 2008. Boxes 1 to 3 present the monetary policy instruments now in operation in the three countries. In PNG, the central bank's March 2009 Monetary Policy Statement (BPMG 2009) has noted the clear signs of risks. These include a larger than expected depreciation of the kina exchange rate; delays in the pass through of low import costs to domestic prices by businesses; a rebound in international food and fuel prices; excessive Government expenditure and a fast drawdown of trust account funds; a significant increase in consumer demand in the event of fresh wage increases, besides other unforeseen external and domestic shocks.

Box 1. PNG: Monetary Policy Instruments

Minimum Liquidity Assets Ratio (MLAR)

Introduced in 1974, the Minimum Liquidity Assets Ratio (MLAR) was 15% of total deposits and other prescribed liabilities in the form of liquid assets, namely cash deposits, with the BPNG or government securities of up to three years to maturity. Currently the MLAR is 25% of total deposits and other prescribed liabilities, in the form of liquid assets, namely cash deposits, with the BPNG or government securities of up to three years to maturity.

Special Deposits- Cash Reserve Requirements (CRR)

Introduced in 1998 as a cash deposit requirement, CRR specifies a fraction (initially at 10%) of commercial banks' deposits and prescribed liabilities that should be kept as deposits with the bank at zero rate of interest for liquidity management purposes. CRR is currently 3.0%.

Standing (Kina deposit) Facility

Commercial banks can deposit surplus funds for three days earning interest below Kina Facility Rate (KFR).

Kina Facility Rate (KFR)

Introduced in February 2001, KFR signals BPNG's stance on monetary policy. The KFR is a monthly rate announced on the first Monday of each month. It is based on an assessment of economic fundamentals in the economy. Changes in the KFR are expected to influence short term interest rates in the economy.

Money market operations

Repurchase Agreement

Introduced in 2001, Repurchase Agreements between the BPNG and commercial banks allow BPNG to sell (repurchase) to (from) the commercial banks a government security at the discretion of BPNG as and when the need arises for liquidity management. The BPNG sells at a set margin which changes from time to time above KFR to inject liquidity and buys at a margin below the KFR to diffuse liquidity currently on an uncollateralized basis, for overnight to 14 days.

Lender of Last Resort

Introduced in 1980, interest charged was based on commercial banks' lending rate. From 1986, the rate has become more punitive and stands at 36.5 % per annum.

Consequently, the Central Bank of PNG, (BPNG) in its latest monetary policy statement of March 2009, felt that despite signs of lower inflation overseas in 2009, the full impact of the global downturn on the country was uncertain. In the light of expected fall in export receipts exerting downward pressure on the exchange rate, effect of potential depreciation of the kina combined with continued very strong domestic demand would only contribute to inflationary pressures in 2009. Therefore, BPNG decided to adopt a tight monetary policy stance in the first half of 2009, suggesting a similar tight fiscal policy (BPNG 2009). Further, cautioning that the magnitude of Government expenditure

and its impact on banking system liquidity would be of particular concern, BPNG advised the government to reduce liquidity in the banking system by immediately transferring all trust account funds from the commercial banks to BPNG.

As regards monetary policy stance in Solomon Islands, noting that the current level of reserves was below the Bank's desired level sufficient to cover the predicted next three months of imports, the central bank in its May 2009 Monetary policy statement announced that it would continue its past tight monetary policy, as it "would prevent a hemorrhaging of reserves" (CBSI 2009).

Box 2. Solomon Islands: Monetary Policy Instruments

Liquid Asset Ratio (LAR)

LAR was introduced in 1983

Banks are required to maintain a balance of liquid assets for each working day amounting to not less than 7.5 percent of deposit liabilities.

Prior to November 2008, the qualified liquid assets were both cash and deposits with CBSI. In November 2008, cash was removed from the definition of liquid assets.

Standing facilities

Secured Advanced Facility (SAF):

SAF was introduced in Dec 2008

This facility is intended to assist banks with short term liquidity problems or needs due to specific market situations. This is in accordance with the principal objectives under Section 4 of CBSI Act.

The maturity term of the facility is 7 days and the interest rate is 2.5% above the interest rate on earning assets as determined by CBSI.

The minimum advance is SI\$1 million.

Open Market Operations

Bokolo bills (CBSI's own Bills) were introduced in 1989 and discontinued in 1995

Treasury Bills: CBSI auctions treasury bills, having maturities of 7, 14, 28, 56 and days. Originally introduced in early 1980s was discontinued in mid-1995.

Revived around 1999 and continuing.

A cap of \$30 million was introduced by CBSI for total T-bills.

While the instrument remains with CBSI, the cost was incurred by Government.

Bokolo Deposit facility: This was introduced in late 2008 by CBSI with a fixed term maturity of 12, 18 and 24 months.

Interest rates on the facility are 4%, 4.25% and 4.5%.

The amount of deposit is negotiable.

The purpose behind the facility is to absorb excess liquidity in the banking system.

Monetary stance

CBSI does not target any rate

Tonga's central bank (NRBT) in its May 2009 Press release as well as in its monetary policy statement clearly recognized the vulnerability of the economy to external shocks such as oil price increases, adverse weather conditions, high dependence on imports and

remittances and emphasized the importance of promoting exchange rate stability and therefore overall price stability. Although the country's reserve position has improved thanks to lower prices of imports facilitated by the weakening of New Zealand dollar, NRBT (2009) made it clear that any relaxation of monetary stance would only lead to "a re-acceleration of credit growth which would put pressure on domestic resources, potentially leading to more inflation, higher imports and lower foreign reserves."

Box 3. Tonga: Monetary Policy Instruments

Credit ceilings

They are imposed on the net domestic assets of each individual bank. It has been one of the main monetary policy instruments in Tonga since 2000. As of march 2009, there is no credit ceiling in place.

Statutory Reserve requirements

SRD, as of March 2009 is 10 percent.

Liquid Assets Ratio

Liquid assets ratio was introduced in 2007. As of March 2009, Minimum LAR requirement is 5 percent.

Standing facilities

Short-term liquidity facility: Allows the banks to borrow from the NRBT for a short term (normally for less than a month), using government bonds or NRBT notes as collateral. The discount rate charged by the NRBT on these short-term loans is 17 percent per year during the first 10 days, and 19 percent thereafter, as of August 2007. This was reduced to 6% in March 09 and further reduced to 4.5% in May 09. This rate is now linked to the interbank lending rate.

Unsecured Advance

The NRBT does not lend as unsecured advance.

Repurchase rate

As of March 2009, 6 percent and reduced to 4.5 percent in May 2009.

Money market instruments

Reserve Bank Notes: NRBT bills were introduced in the mid-1990s; they were discontinued in 2001 owing to high operating costs. NRBT reintroduced its 28-day Reserve Bank Notes in 2007. The Government does not issue Treasury bills.

The NRBT also took note of the increased incidence of loan defaults and wanted to maintain the financial health of the banking system. The NRBT indicated its past stance of maintaining tightened conditions by "closely monitoring growth in lending and foreign payments obligations" and continuing the issue of NRBT notes when necessary to ensure financial stability." (NRBT 2009).

Proactive Policies

In Vanuatu, Reserve Bank of Vanuatu (RBV) tightened monetary conditions in 2008 in the face of inflation, which exceeded the targeted rate of 4 percent. The RBV raised its rediscount rate by 25 basis points in September 2008 to 6.25 percent (Box 4). However, RBV, in the second half of 2008 had to relax its policy stance, as the liquidity situation became a matter of concern with bank excess reserves falling to low levels. Accordingly, RBV reduced its rediscount rate to 6.00 percent in December 2008 and took further steps to alleviate the tight liquidity conditions. These included reductions in Liquid Asset Requirement from 8.0 percent to 7.0 percent and in the Statutory Reserve Deposit (SRD) ratio from 8.5 percent to 8.0 percent in November 2008. The SRD ratio was further reduced to 5.0 percent in January 2009.

Box 4: Vanuatu: Monetary Policy Instruments

Reserve requirements

Introduced in 1988, the Statutory Reserve Deposit (SRD) ratio is calculated on monthly average basis. This requirement stands now at 10 percent of deposits, which is defined as 50 percent of residents' demand deposits in foreign currency as well as all the demand, time, and saving deposits of residents in vatu.

Standing facilities

Discount Facility: Banks can sell (rediscount) treasury bills and/or RBV notes with an upto 90-day maturity to the RBV.

Repurchase Facility: Banks sell government bonds and/or RBV notes to the RBV and subsequently buy back the securities at a specified date and price. In the period between the sale and the repurchase of the securities, the RBV provides the bank with temporary liquidity. The discount rate applies to these operations.

Money market operations

RBV notes: The RBV intermittently auctions these RBV notes, which have maturities of 28, 91, 119, and 182 days to absorb excess liquidity.

Policy Variable: Reserve Money, defined as the sum of currency issued and bank's deposits, is the key monetary policy variable. Bank's deposits include compulsory deposits in connection with SRD requirements and excess reserves partly used by banks to meet daily clearing needs and to grant private sector credit.

Intermediate Variables: The RBV monitors closely a set of key monetary aggregates (e.g., various levels of money supply, private sector credit, and international reserves) for assessing the efficiency of its policies.

Monetary Instruments: The RBV controls the money supply by monitoring banks' liquidity through the following indirect instruments.

- Statutory Reserve Deposit (SRD): primarily a prudential instrument. Under the SRD commercial banks are required to maintain 10 percent of average Vatu deposits and 50 percent of foreign currency demand deposits for the two months preceding the calculation date.
- *Open Market Operations:* Central for liquidity management purposes. The RBV regularly buys and sell its own notes in open market operations to regulate banks' liquidity. The notes have maturities of 14 days, 28 days, 63 days, and 91 days.
- Rediscount Window and Repurchasing Agreement Facilities: Primarily lender-of-last resort facilities. Banks experiencing liquidity shortages can access RBV funds through these facilities. Banks holdings of RBV Notes and government bonds are used as collateral. These facilities have rarely been used since their inception in 1998 because of a generally favorable liquidity situation. The rediscount rate is the RBV's benchmark rate.

By February 2009, Vanuatu's foreign reserves were at a comfortable level of 5.4 months of import cover, above the minimum import cover of 4 months. However, the latest Monetary Policy Statement, which was released in March 2009, RBV indicated a downward trend in tourism and export earnings. Consequently, a widening of current

account deficit would exercise downward pressure on the stock of foreign exchange. The central bank decided not to relax the monetary policy stance any further.

However, both Fiji (Box 5) and Samoa (Box 6) decided to ease monetary conditions in the first quarter of 2009. First, Fiji preferred to effect an exchange rate adjustment by devaluing the currency by 20 percent on the ground that its exchange rate was out of alignment with the economic fundamentals. As there was a rapid decline in international reserves, Fiji felt it appropriate to devalue the currency⁶. Resorting to a change in nominal exchange rate led to rise in domestic inflation, as prices of all imported items went up. The reserves after revaluation went up to F\$ 641 million in May 2009 as compared to F\$ 429 million at the end of March 2009.

Box 5: Fiji: Monetary Policy Instruments

Reserve Requirements

Statutory Reserve Deposit (SRD) ratio is 5% on all deposit liabilities of commercial banks since April 1, 2009, reduced from 6 %. The legal reserves kept with the Reserve Bank of Fiji are remunerated. The rate of interest paid on reserves is 0.90%.

Earlier when RBF was conducting open market operations in its own papers of different maturities, known as the Reserve Bank of Fiji (RBF) Notes, the legal reserves were remunerated at the same rate as the yield to maturity rate of 91-day RBF Notes.

Discount Window

Discount lending rate known as Minimum Lending rate is 6.32 % since April, reduced from 9.25%. Repurchase Rate is the same as minimum lending rate at 6.32%

Open Market Operations

Reserve Bank of Fiji Notes. Reserve Bank was conducting open market operations in its own securities until December 2006. The 91-day yield to maturity rate was the policy indicator interest rate signifying the monetary policy stance. Reserve Bank was conducting OMO through tendering process.

Moral Suasion

Frequent meetings with banks are held to persuade banks to reduce interest rate spread and increase deposit rate and lend more to medium and small enterprises and prioritised sectors

⁶ The pros and cons of devaluation of the currency as a likely remedy to halt the fall in international reserves during the current global crisis have to be carefully evaluated. If the exchange rate is out of line with macroeconomic fundamentals, the immediate option that could be thought of is correcting the fundamentals, such as reducing fiscal deficit by cutting of non essentials, including overseas travel and reducing growth in private sector credit.

As Fiji's reserves declined, money supply decreased and liquidity conditions became tight. The Reserve Bank of Fiji (RBF) lowered its statutory reserve ratio to 5 percent from the previous ratio of 6 percent imposed as part of monetary tightening in mid 2007. In addition, RBF successfully persuaded banks to freeze the lending rate at the December 2008 level and keep a spread of not more than 4 percent, which actually resulted in raising deposit rates.

For easing monetary conditions, the Central Bank of Samoa (CBS) reduced its lending rate to the commercial banks from 7.8 percent to 5.0 percent, effective from February 2009. The term for such lending was increased from 7 days to 30 days. Further, the range of collateral instruments was extended to include a relatively wider range of acceptable assets. The CBS would be reviewing the situation once again when the budget for the fiscal year June 2009-May 2010 would be approved by the legislature.

Box 6. Samoa: Monetary Policy Instruments

Reserve Requirements

Statutory Reserve Deposit (SRD) ratio is 4.5% on all deposit liabilities since March 2008. It was increased from 3.5%, which was the last rate in 2006.

Discount Window

Discount lending rate is based on the yield to maturity of the Central Bank security to be rediscounted plus 1% penalty. During 2005-206, the penalty rate was 3%.

Repurchase Rate is determined on the basis of the prevailing market weighted average interest rate on CBS securities plus the penalty rate of 1%. The penalty rate was raised during monetary tightening period in 2005-2006 to 3%.

Currently, the Repo rate is 5% effective Feb 2009.

Open Market Operations

CBS securities. Central Bank of Samoa conducts open market operations in its own securities.

Moral Suasion

Frequent meetings with banks are held to persuade banks for controlling growth in credit

That brings us to the subject of coordination of fiscal and monetary policies at this critical juncture, when PICs face the impact of global downturn.

Need for coordination.

By the enactment of the Central Banking Act 2000, BPNG has been given greater independence in choice of instruments. In the case of other central banks in PICs, the degree of autonomy varies from interference to obtaining approval of cabinet in changing the SRD ratio. Regardless of the autonomy question, what is now critically needed is frequent consultation between central banks and the ministries of finance. In the past, central banks were called upon at a later stage, when the economy used to get overheated with expansionary fiscal policies, often in ending up with rise in public debt and sometimes in the monetization of deficits, to perform the fire fighting exercise to put down inflationary pressures.

PNG's central bank Governor Kamit put it thus: "Experience of the 1990s show that when there is excessive Government spending there can be downward pressure on the exchange rate and high inflation. And monetary policy is burdened with the task of restoring macroeconomic stability. That is, monetary policy could become preoccupied with the Government's debt management" (Kamit 2009).

V. Conclusion

To conclude, BPNG's Monetary Policy Statement of March 2009 reflected the concerns of every central bank governor in the South Pacific region:

"The objective of economic stability will not be achieved by monetary policy alone. It also requires prudent management of fiscal policy by the Government within the budget framework and its medium term policies. Should export tax receipts be lower than projected, expenditure should be adjusted accordingly to avoid a reckless budget blowout. It should also avoid excessive recurrent expenditure and direct its expenditure effectively on the priority areas of health, education, law and order, and physical infrastructure, and reducing debt in line with the Medium Term Debt Strategy. Efforts should be made to improve implementation capacity for development expenditure and removal of other impediments to investment consistent with the medium term development, fiscal and debt strategies so that economic growth is sustained in the medium term".

References

- Asian Development Bank (2009), *Pacific Monitor*, Manila: Asian Development Bank. www.ad.org/pacmonitor
- Bakani, L.M. (2009). Commentary on the PNG Economic Survey: From Boom to Gloom, 2009 Papua New Guinea Update held on April 16, http://www.bpng.gov.pg
- Bank of Papua New Guinea 2009. *Monetary Policy Statement, March* 2009, http://www.,bpng.gov.pg. Central Bank of Samoa (2009). *Monetary Policy Statement* 2008/2009, February 2009, http://www/cbs.gov.ws
- Central Bank of Samoa (2009). Monetary Policy Statement, March 2009, www.cbs.gov.ws
- Central Bank of Solomon Islands (2009). Monetary Policy Statement, May 2009. www.cbsi.gov.sb
- Hostland, D. (2008). 'The Impact of the Global Financial Crisis on the Development Finance Prospects for LDCs'. *WB Presentation*, 18 November. Washington, DC: World Bank, Development Economics Prospects Group.
- International Monetary Fund (2009). Word Economic Outlook April, Washington. D. C.: IMF.
- Kamit, W. (2009). Address at the Lowy Institute for International Policy Conference on Tackling Extreme Poverty in Paua New Guinea, http://mxww.bpng.gov.pg
- Naude, W (2009). "The Financial Crisis of 2008 and the Developing Countries", *Discussion Paper No. 2009/01*, Helsinki: UNU-WIDER.
- National Reserve Bank of Tonga (2009), *Monetary Policy Statement, March 2009*, www.nrbt.to Ravallion, M. (2008). "Bailing out the World's Poorest", *WB Policy Research Working Paper 4763*. Washington, D. C: World Bank.
- Reserve Bank of Fiji (2009). Bi-annual Monetary Policy Statement, May 2009, www.rbf.gov.fi
- Reserve Bank of Vanuatu (2009). Monetary Policy Statement, April 2009, www.rbv.gov.vu
- Scanlan, L.P. (2009). Address at the Pacific Wave Conference on Weathering the Economic Storm, Auckland, 3-4 June, 2009.
- UNESCAP (2009). Economic and Social Survey 2009, Bangkok: UNESCAP.

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