

MONETARY AND FISCAL POLICY
CO-ORDINATION IN FIJI

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Abstract

This paper seeks to review the fiscal and monetary policy co-ordination processes in Fiji and to evaluate how it has assisted in the overall implementation of macroeconomic policies in the country.

Monetary policy is formulated and conducted by the Reserve Bank of Fiji (RBF). The RBF Board agrees to policy on recommendation of the Governor who is advised through the Monetary Policy committee and other advisors. The RBF then conducts policy implementation through open market operations using Reserve Bank of Fiji Notes to influence short term interest rates to maintain price stability and an adequate level of foreign reserves.

The Ministry of Finance and National Planning is largely responsible for formulating and implementing fiscal policy for the nation. However, at many stages of the policy formulation, input is sought from the Reserve Bank. This harmonisation of policies is enacted in the RBF Act and is effected through a number of institutional measures, which ensure that policies are not in conflict.

Throughout the 1990's, the Government has been running budget deficits. During this period, the close co-ordination of policies as mandated by the RBF Act has resulted in deliberate decisions to finance the deficit domestically at cheaper interest rates, while ensuring private sector demand is not crowded out. Success of these measures is reflected in the lowest average inflation rates in the past decade since independence and external reserves maintained at comfortable levels.

1.0 Introduction

Successful economic growth in small open economies is dependent upon a high degree of monetary and fiscal policy co-ordination between central banks and governments. Recent experiences in this area of growing importance have been documented by Worrell (2000), Laurens and Piedra (1998), Chandavarkar (1996), Fry, Goodhart and Almeida (1996), and Fry and Rio (1995). The objective of this paper is to delineate the procedures adopted in Fiji for bringing about co-ordination between the Reserve Bank of Fiji (RBF) and the Ministry of Finance & National Planning in the pursuit of common objectives of price stability and growth.

The paper is organised into five sections. Section two outlines the monetary policy objectives and reviews the progress in the area of adoption of indirect instruments towards these objectives. Section three discusses the essential components of fiscal and monetary policy co-ordination; the fourth section deals specifically with the Fiji situation. The fifth and the final section is a summary of conclusions with policy implications.

2.0 Monetary Policy Objectives

Fiji has adopted a trade weighted exchange rate system. The Fiji dollar is pegged to a basket of five currencies of its major trading partners (United States, Australia, New Zealand, the Euroland and Japan). The objectives of monetary policy in Fiji are no different from those of any similarly placed market-oriented small open economies and they are both internal and external stability of the national currency

(Chandavarkar 1996). Fiji is vulnerable to economic shocks that can lead to fluctuations in inflation and macroeconomic instability and hence a solid nominal anchor is especially important. The current exchange rate regime has served Fiji well as a nominal anchor stabilizing inflationary expectations. Price stability in Fiji reflects the close relationship between its rate of inflation and that of its major trading partners, all of whom have low inflation rates.

2.1 Policy Effectiveness

The standard textbook observation is that under conditions without capital controls, monetary policy would be ineffective in small open economies with fixed exchange rate systems (Samuelson and Nordhaus 1998: 610). This is because any displacement of monetary equilibrium would result in capital flows rather than changes in expenditure that might alter prices or output. In the absence of capital controls under a fixed exchange rate system, for example, if a central bank injects funds into the market by open market purchase of securities, domestic interest rate would fall below foreign interest rates and capital would flow out in the expectations of higher returns.

However, Fiji in the best of times as well in the worst of times has been effectively insulated by capital controls. In times prior to 1987 as well as during the period between 1987 and 2000, exchange controls on capital accounts have been in existence, although with some varying degrees of relaxation. During the periods immediately following the coups of 1987 and the coup of May 19, 2000 more severe restrictions were imposed on the current and capital account transactions. However,

most of these policies were quickly reversed to pre-May 19 levels by the end of the year. As Khatkhate and Short (1980) note, capital controls do enhance effectiveness of monetary policy. Furthermore, a variety of other factors including informational asymmetries, absence of secondary markets, low levels of market sophistication, the nature of approval processes, transaction costs, and issue size of securities are also inhibiting capital mobility (Waqabaca and Morling 1999). Therefore, under these conditions, the RBF has been able to implement a monetary policy more independently than otherwise (Rumbaugh 1997, Jayaraman 1999).

Specifically, the monetary policy goals have been maintenance of a stable price level as well as adequate foreign exchange reserves, while playing a supporting role to fiscal policy in regard to demand management (Siwatibau 1993).

2.2 Indirect Instruments

Deregulation of the financial system began in the early 1980s. In December 1981, the Central Monetary Authority (CMA), the forerunner of the Reserve Bank of Fiji, removed the ceiling on interest rates paid on deposits. This encouraged greater competition in the market and institutionalising of savings. Fiji is now relying upon indirect instruments of monetary policy. In line with the liberalisation process and greater reliance on indirect instruments, changes in the statutory reserve deposit ratio are no longer frequent. The last change was effected in 1998 and it stands at 5%. Further, the reserves so kept have

come to be remunerated since January 1998 at the market interest, as reflected in the RBF indicator rate of interest.

The RBF began to conduct open market operations in May 1989 using its own paper, known as RBF Notes, for different maturity periods. The RBF Act was amended to enable the offering of the paper to all market participants, including individual and institutional investors, besides commercial banks and statutory agencies. Originally introduced for the express purpose of absorbing liquidity, RBF Notes with its tendering system of sale, are here to stay and are now reflecting the market liquidity situation.

Since October 1997, the RBF started conducting policy by targeting interest rate. The yield to maturity of the 91-day RBF Note is the indicator interest rate for signalling the monetary stance. It influences other rates including the minimum lending rate (MLR) which serves as the ceiling rate for inter-bank lending.¹

As Rumbaugh (1997) notes, the benefits of indirect instruments are seen in terms of improved central bank control of money and credit, depoliticalisation of the policy-making process and enhanced financial intermediation, investment and growth. However, towards making their maximum contribution to growth, an institutional structure is needed for financial markets to develop. Fiji is taking appropriate steps for developing

¹In Fiji, the interest rate charged on the repurchase facility is the same as the MLR.

the capital and financial markets.

3.0 Essentials of Fiscal and Monetary Policy Co-ordination

Government budget deficits and increases in money supply are highly linked. Appendix 1 discusses in detail the relationship between changes in public sector borrowing requirements for financing deficits and changes in money supply. If government finances its annual budget deficits entirely by borrowing from the public and commercial banks, there will be no requirement of central bank financing. However, there would be competition between the public and private sector for the limited funds. This also assumes that markets for government bonds are well developed and that the private sector would be able to absorb government bonds. In the absence of a well-developed market for bonds, government budget deficits are financed by borrowing from the central bank. It has been documented by Fry (1998) that developing countries rely much more than industrialised countries on the central bank to finance their budget deficits.

3.1 Sources of Financing

There are four sources of financing the government deficit: voluntary purchases of government debt in the domestic market, foreign borrowing, forced placement of government debt and central bank credit to government. Among these four alternatives, the first two are the most preferred ones, as they limit the negative repercussions of deficit financing such as inflation and weakening of external accounts (Laurens and Piedra 1998).

As discussed in Appendix 1, money supply is influenced by net foreign assets, besides domestic credit by the banking system (commercial banks credit to private sector, commercial bank credit to government and central bank credit to government). Therefore, the central bank can offset the impact of both the budget and current account deficits by changing other components of its assets through open market operations. As financial markets in developing countries are shallow with limited players and are not deep enough, as no secondary markets are developed, central banks have always been required to pick up the unsold government bonds which are originally issued for financing budget deficits. The central bank has to print money by absorbing the government obligations and it has no possibility of subsequently contracting money supply by selling them in the open market (Taylor 1979). Thus, monetary policy is dictated by the budget (Dornbusch 1993). Expanding the theme of “macroeconomic populism”, Dornbusch and Edwards (1990) observe populist governments in developing countries undertake ambitious development programmes which, are largely unfunded and are often financed by money creation. They do so without proper appreciation of risks of inflation and external constraints (Hossain and Chowdhury 1996).

Sundararajan *et al.* (1994) illustrate the relationship between monetary policy and fiscal policy, the links between government deficit and the sources of financing, by using the following expression:

$$D_t = [B_t - B_{(t-1)}] - [MB_t - MB_{(t-1)}]$$

Where, D_t = the government's budget deficit on a cash basis;

$[B_t - B_{(t-1)}]$ = the net placement of government bonds; and

$[MB_t - MB_{(t-1)}]$ = change in monetary base arising from the central bank credit

The above expression illustrates that change in monetary base will be zero if the budget deficit is fully met with bond issues and there is no change in government deposits with commercial banks. In case the bonds remain unsold, the change in monetary base will be positive.

3.2 Three Scenarios

Laurens and Piedra (1998) visualise three scenarios without coordination between the fiscal and monetary policies. In the first scenario, the central bank is dominant and hence able to determine the growth of monetary base independently of the financing needs of the government. Since the domestic and external financing possibilities would constrain the size of the budget deficit, the government would be forced to reduce the size of the budget deficit or face the high risks of external borrowing or place its bonds in the domestic market forcing a big hike in interest rate.

In the second scenario, the ministry of finance is dominant and hence would decide the size of the budget deficit without consulting the central bank. Given the financing possibilities in the bond market, the central bank would be obliged to provide direct credit to the government with high risks of inflation and consequent monetary instability.

In the third scenario, both central bank and ministry of finance behave as if they are independent. Consequently, the fiscal and monetary authorities would make inconsistent decisions regarding both

the size of the budget and growth of the monetary base with high risks of inflation and steep climb in interest rates.

3.3 Need for Co-ordination

Laurens and de la Piedra (1998) observe that co-ordination of fiscal and monetary policies would give rise to a better result in any of the three scenarios, since the development of monetary and debt management procedures which would work in tandem would be self-reinforcing. The co-ordination of policies would also promote expansion of the domestic financial market.

The conventional view is that a clear delineation of responsibilities should suffice. The central bank and ministry of finance should co-ordinate and agree on the size of the deficit and its financing mode. They should co-ordinate operating procedures, clarifying for themselves and the public who has the responsibility for debt management, cash management and liquidity forecasting as well who is responsible for observing rules insulating the central bank from the government's borrowing requirements (Worrell 2000).

In most of the developing countries, debt instruments are also used for monetary policy (Chandavarkar 1996). Therefore, Sundararajan, Dattels and Blommestein (1997) stress that there should be an *ex-ante* co-ordination of fiscal and monetary policy so that their impact on financial markets is mutually consistent. Worrell (2000) specifically underscores the need for designing fiscal policies to be consistent with monetary targets.

The impacts of fiscal and monetary policy changes appear with different lags. Since there are no market mechanisms in underdeveloped financial systems that will reconcile fiscal and monetary policy changes, institutional arrangements for policy making by the central bank and the ministry of finance have been recommended by various studies (Fry, Goodhart and Almeida 1996, Fry and Roi 1995 and Worrell 2000).

Worrel (2000), who was a former central banker from the Caribbean Island of Barbados and is now with IMF says, he has found in his own country such an institutional mechanism for joint policy making extremely useful. He, however, observes that the danger in the operation of a joint policy arrangement would apparently be the loss of central bank autonomy over monetary policy, but that should create no inconsistency, since monetary policy is framed within an overall policy stance. If there are elements already in place such as: (i) ensuring formation of national policy consensus in regard to goals of price stability and growth; (ii) a joint ministry of finance and central bank mechanism for preparing and publicising the economic outlook and performance; (iii) a process of reconciling the objectives of ministry of finance and the spending ministries backed by effective control on spending; and (iv) a high-level joint policy making body, which employs the outlook as its information base for decision making (Worrell 2000), there is no room for any inconsistency.

3.4 Joint Exercises

Essentially, the joint policy exercises would start with the agreed inflation target between the government and central bank, and the

economic growth rate forecast by the statistics office. Thereafter, the central bank would estimate the rate of growth in the money supply (M) that is consistent with inflation target and economic growth forecast. The central bank would also use its own estimate of net foreign assets (NFA) and net other items (NOI). The identity is:

$$\text{NFA} + \text{DC} = \text{M} + \text{NOI}$$

The left hand and the right hand sides are respectively the assets and liabilities of the consolidated banking system, which is also known as monetary survey.

DC is split into net domestic credit to government by the commercial banks and loans to private sector by the commercial banks. The ministry of finance provides the monthly or fortnightly borrowing requirements and the central bank then derives the estimates of net domestic credit to government and the planned sources of financing (that is taking into account the planned division of net borrowing from the banking system, other domestic sources and external borrowing). This procedure leaves credit to the private sector by the commercial banks as the residual asset, which the central bank must influence through its control over its main liability, high-powered money (Fry and Roi 1995).

The increased use of indirect instruments by central banks in developing countries in recent years to influence the monetary base involves exclusively government securities in some countries, and in some others only central banks' own papers. As open market operations subserve multiple objectives including debt management and

government borrowing, creating and maintaining a desired a pattern of yield and maturity and controlling the reserve base of the banking system, there has been growing recognition to keep the monetary policy and liquidity management operations separate from debt management operations (Chandavarkar 1996). Such a step also contributes to strengthening the operational autonomy of the central bank. Towards this objective, central banks are increasingly relying upon on their own papers to absorb excess liquidity. The only drawback is the risk of central bank losses, which will have a significant negative impact on the profit and loss account.

3.5 Central Bank Autonomy

As Chandavarkar (1996) observes, central bank losses erode the central bank's autonomy and credibility. These losses also pose a major danger that the monetisation of the losses and the large interest payments due on the outstanding debt undermine the effectiveness of monetary policy, thus "neutralising the very effects sought by the issuance of central bank securities. (Quintyn 1994, p. 716)

However, central banks find their own paper useful as it offers a very flexible instrument for the short-term liquidity management at their own discretion. The central banks can alter the issuance, auction system, maturities and settlement rules. However, there would be problems of co-ordination when central bank paper is issued along with government treasury bill, unless there is some complementarity between the two in terms of maturity.

The next section specifically focuses on Fiji, dealing with evolution the of co-ordination arrangements.

4.0 Monetary & Fiscal Co-ordination in Fiji

The RBF recognizes that Government's financing policy is fundamentally linked to monetary policy. However, apart from formulating and implementing monetary policy, the RBF is responsible for debt management together with the Ministry of Finance through the Cash-Flow Committee.

Close coordination of fiscal and monetary policy and prudent liquidity management have ensured that the fiscal deficit is neither monetised by the RBF nor is the private sector credit squeezed. As a result, the country experienced low inflation. Further, foreign reserves continue to remain at comfortable levels.

The success of monetary and fiscal policy coordination in Fiji is underpinned by the common objective of the RBF and Government of creating the right environment to improve the standard of living for its citizens. This is reflected in the preparation of the Budget where the RBF's input and submission on the monetary policy stance are incorporated. This submission is not only based on its own objectives, but also the economic outlook as well as the likely fiscal outturn. Hence, fiscal and monetary policy is harmonized in the Budget.²

4.1 Institutional Arrangements

² The scope of this paper is not to address the level of deficit and where and how the funds raised are spent.

Complementing this common objective and coordination of policies in Fiji are the institutional arrangements in place.³ Unlike in developed financial markets where feasible institutional arrangements provide an effective mechanism for ensuring the consistency of monetary and fiscal policies, in Fiji, this role of fostering coordination of policies is primarily undertaken by a number of committees. Though these committees are not constituted bodies, they nonetheless, assist in bringing about the desired coordination so that policies are not in conflict. In fact, in a recent South Pacific Central Banks seminar, the institutional framework in Fiji was highly commended and was recommended to other island economies in the region for better and more effective co-ordination of policy.⁴

4.2 Macroeconomic Policy Committee:

Ideally, monetary policy ought to be fully integrated with fiscal policy and other elements of macroeconomic strategy. Fiscal and monetary authorities should share information with each other and should be in regular contact on the formulation and monitoring of policy. This coordination of policies in Fiji is the responsibility of the Macroeconomic Policy Committee, which comprises members from the RBF, Ministry of Finance & National Planning and Ministry of Foreign Affairs, Trade and Commerce. The Governor of the Bank chairs the Committee and its principal objective is to prepare macroeconomic forecasts for the country and offer economic advice through the Minister of Finance to foster economic development and growth. Since

³ It is worth mentioning that coordination of policies has been found to be effected much easier given the fact that all RBF Governors have previously served as Permanent Secretary of Finance.

⁴ The Course was held in Apia, Samoa from 23-27 October 2000.

this committee includes senior officials from both authorities, policy recommendations and their implications on fiscal or monetary policy are discussed and addressed. Hence, this forum serves as the first point of formal coordination of policies.

4.3 Cash-Flow Committee:⁵

The Cash-Flow committee is also chaired by the Governor of the Reserve Bank and comprises officials from the Bank, Ministry of Finance and Fiji Customs and Revenue Authority. The aim of the committee is to maximize debt subscription and at the same time minimize the cost of debt. This committee analyses debt in relation to the overall economic strategy, including its impact on inflation, interest rates and debt servicing. It also attempts to integrate debt management into an overall strategy appropriate to the country. Members also examine government revenue and expenditure patterns, actual outturn in relation to projections and recommend appropriate reforms and strategies to align the deficit to projected levels.

The Committee also formulates broad borrowing strategies and deliberates on alternative methods of financing with careful consideration of the consequences. Finally, given the close link between debt management and monetary policy, the Committee ensures there is coordination between monetary policy and debt management such that Government will be able to fully finance its deficit without resorting to the RBF for funds. Hence the Committee assists in the funding program so that there is no financial market instability, which could lead to loss

⁵ This Committee has been re-named Debt Policy Steering Committee from 2001.

of credibility. This is of particular importance since Government borrowing requirements have been large and could affect the Bank's objective of low inflation as well as achieving its operational interest rate target.

4.4 Technical Cash-Flow Committee:⁶

This committee operates one level down from the Cash-Flow Committee and meets fortnightly. It includes members from the Domestic Markets Unit of the RBF, who are also responsible for implementing monetary policy. Other members include the staff from Ministry of Finance (Treasury, Budget and Financial Management & Audit) and Fiji Revenue & Customs Authority. This committee is largely responsible for the planning of financing requirements, deciding on the volume, timing, type and frequency of borrowing. It is also responsible for minimizing the long-run cost of debt service, taking account of risk and where necessary, co-ordinating with monetary policy.

The aim of this Committee is to coordinate operating procedures for the raising of Government debt and day-to-day cash management. It is at this committee that an assessment of Government funding requirements for the coming weeks are identified based on revenue projections and expenditure outlays. Based on governments financing needs, the Domestic Markets Unit ensures that the liquidity needs of the Government are met as debt management operations have the potential

⁶ This Committee has been re-named Debt Policy Committee from 2001.

to disrupt market operations causing short-term fluctuations in the operational target rate.

4.5 Debt Financing

The current procedure for raising Government debt is that all financing requirements should be notified to the RBF at least two weeks in advance. This enables the RBF to do the necessary background work with regard to preparation of the prospectus, informing the market participants as well as coordinating its own open market operations. Since the RBF also acts as registrar for statutory corporations, it continuously liaises with the market participants so that both public sector securities and RBF Notes flotation for the conduct of monetary policy are not in conflict. Hence, there is an on-going process of interaction, update and revision of information so that policy is coordinated. In this way the RBF is able to ensure that there is sufficient liquidity in the system to meet Government's demand without compromising monetary policy targets.

The RBF informs the market of Governments' intention to borrow by placing an advertisement in at least one of the daily print media one week before the opening of the tenders. The Bank also provides the major institutional investors with information of upcoming securities to be floated in the market through a fax message every Monday. Tenders for Government bonds are normally open on Monday (9 a.m.) and close on Tuesday (12 p.m.). Tenders are assessed and allotted in consultation with Treasury personal with the investors being informed of the results at approximately 3 p.m. on the same day.

Since the mid-1990's, the financing of the fiscal deficit has been met almost entirely through bonds. The primary reason for financing through bonds is to link capital expenditure with long-term borrowing. In addition, such long-term borrowing allows Government to smooth its repayment schedule, as a surplus budget is not expected in the short-term. Borrowing for temporary financing requirements is done through issuance of Treasury Bills (TB).

Over the years, the Government has almost entirely financed its fiscal deficit domestically. This strategy to source funds from the domestic capital market has been greatly assisted by the excess liquidity in the banking system. In addition, it eliminates the risk associated with exchange rate volatility. External borrowing has been mainly tied to infrastructure projects and has been relatively small in relation to total borrowing.

Embedded in the RBF Act (Sections 50 and 51) is the provision for the Bank to invest in Government and Government guaranteed securities that are publicly offered. In addition, Section 49(4)(a) states the provision of credit that the RBF may extend to Government in a financial year. While RBF is not precluded from participating in the primary market, it has opted not to participate, since apart from the ethical considerations, the Bank does not want to be seen to be directly influencing interest rates.⁷ However, the Bank's management of liquidity conditions in the banking system ensures that Government is able to fully finance its deficit through the flotation of its securities in the market.

⁷ The Bank has a domestic bond portfolio set up in 1999 to develop the trading of bonds in secondary market. All bonds in the portfolio have been purchased from the secondary market.

The following table summarizes the results of coordination between Government financing and monetary policy.

Year	Government Bonds (\$ m)		Treasury Bills (\$ m)		RBF Notes (\$ m)	
	Amount Floated	Amount Received	Amount. Floated	Amount. Received	Amount Floated	Amount Received
1995	104.0	138.0	193.0	279.4	426.0	487.2
1996	118.0	175.0	132.0	169.8	545.0	691.9
1997	130.0	271.3	171.0	183.4	532.6	931.4
1998	100.0	167.6	558.0	524.6	1186.0	1303.7
1999	186.0	405.8	412.0	586.6	2272.2	2272.2
2000	225.0	372.2	180.0	154.6	3127.0	5210.4

Source: Reserve Bank of Fiji

As is notable from the above table, both Government securities and RBF Notes have been characterized by over-subscriptions of tenders. This implies that the close coordination of policies as well as prudent liquidity management operations enabled the RBF to conduct its market operations without adversely affecting the demand for funds needed by Government to finance its deficit.

Year	Government Bond Funding ¹ (by investors) \$ m				Other Indicators		
	Banks	Non-Banks	Others	RBF	Inflation Rate	Operational Target Interest Rate ²	Foreign Reserves ³
1995	9.5	91.5	0.0	0.0	2.2	n.a.	3.7
1996	2.2	109.2	1.6	0.0	2.4	n.a.	4.0
1997	20.7	103.0	9.5	0.0	2.9	2.00	3.8
1998	4.5	91.4	4.1	0.0	8.1	2.00	4.8
1999	24.9	151.4	9.7	0.0	0.2	2.00	4.7
2000	34.3	169.9	5.8	0.0	3.0	3.00	6.3

1/	Reflects funding from the primary market only.
2/	There was no operational target rate prior to 1997. During 2000, the rate was increased to 5.00% in May and was then reduced to 4.00% in August and 3.00% in September.
3/	Months of Imports (goods & non-factor service).
Source: Reserve Bank of Fiji	

Data from this table indicates that apart from sourcing its entire financing requirement from the market, the key monetary policy objectives were, for the most part, achieved. The inflation rate remained low and foreign reserves remained comfortable.⁸ The operational target rate introduced in 1997 rate was also achieved with a success rate of approximately 95 percent.

The Domestic Markets Unit prepares liquidity forecasts on a daily basis. The conduct of monetary policy through open market operations is crucial, as it ultimately affects the supply of funds available in the system for alternative investment (i.e. for investment in Government securities etc). One of the vital pieces of information necessary for the preparation of the forecast is the volume of Government deposits placed with the RBF and Governments' financing requirement. As such, the RBF impresses on the Government the need to provide accurate and timely information. Hence, the Domestic Markets Unit liaises with the Ministry of Finance on a daily basis on movements in Government deposits, so that liquidity projections incorporate all necessary information. This will ensure that the monetary policy operating interest rate target is achieved and Government's upcoming financing

⁸ The higher inflation rate in 1998 of 8.1 percent was mainly due to the 20 percent devaluation of the F\$.

requirements are met. This coordination is necessary to ensure that debt management and monetary policy are mutually consistent.

Finally, the coordination of policies has resulted in the Ministry of Finance and National Planning better appreciating the benefits of having a developed financial market for reducing debt servicing in the long run. From the monetary policy perspective, a well-developed financial market will result in more effective transmission of policy. As such, measures have been agreed and implemented to make Government securities more liquid as well as attractive.

5.0 Conclusion

There has been a growing recognition in the developing world of the need for integrating monetary policy with fiscal policy and other elements of macroeconomic strategy. While each developing country has evolved its own procedures to achieve this objective, there is no such thing as a perfect example for adoption. Thus, the design of an institutional arrangement to cater for the price stability objective in developing countries where financial markets do not provide an effective mechanism for ensuring the consistency of monetary and fiscal policies has been left for their individual genius.

The success of policy co-ordination in Fiji has been fostered by the government recognising that low inflation is essential to economic growth.⁹ It also recognises that monetary policy is geared towards achieving goals that are necessary for higher and more sustainable growth. This recognition of low inflation sets the cornerstone for

⁹ See 2001 Budget Address by Minister of Finance and National Planning.

better co-ordination of policy and complements the institutional arrangements in place.

While not perfect, policies have been harmonised by the institutional arrangements of both the fiscal and monetary authorities in the country. These committees have enabled the RBF and the Ministry of Finance & National Planning to be in regular contact, share information on the analysis of current events and the formulation and monitoring of policy implementation. As such, differences of opinion on economic performance and policy have been avoided.

The success of policy co-ordination in future, however, hinges not just on the institutional arrangements and the recognition of monetary policy goals for sustainable growth but the commitment by Government such that indebtedness remains on a sustainable path where monetary policy goals are not compromised.¹⁰

¹⁰ The Government announced in its 2001 Budget that it intends to reduce the budget deficit in the coming years so that debt levels is maintained at sustainable levels.

Appendix

Financial Programming[¶]

Money supply is linked with the Government budget deficit. The former is influenced by, amongst others, net foreign assets and commercial banks borrowing from the central bank. The linkage is best understood by looking at the consolidated balance sheet of the banking system and the central bank. The balance sheet of the commercial banks is given by assets on left-hand side and liabilities on the right hand side:

$$LP + GB + R_{CB} = D_d + D_t + CB \quad (1)$$

where LP = loans to the non-bank public;
 GB = loans to the government;
 R_{CB} = reserves with the central bank;
 D_d = demand deposits with commercial banks;
 D_t = savings and time deposits with commercial banks;

and

 CB = Credit from central bank

The central bank's balance sheet is given as assets on left hand side and liabilities on right hand side.

$$NFA + CG + CB = CP + R_{CB} \quad (2)$$

where NFA = net foreign assets;
 CG = credit by central bank to government;
 CB = credit by central bank to commercial banks;

CP = currency held by non-bank public; and
R_{CB} = reserves of commercial banks with central bank.

The consolidated balance sheet of the banking system is obtained by combining the equations (1) and (2) as

$$\text{NFA} + \text{CG} + \text{LP} + \text{GB} = \text{CP} + \text{Dd} + \text{Dt} \quad (3)$$

The right hand side of (3) is money supply (M), which comprises currency and demand and fixed deposits held by public with the commercial banks. The left hand side is the sum of net foreign assets held by central bank and domestic credit (DC) by the banking system, which comprises credit to government and credit to the public both by commercial banks and credit to the government by the central bank.

Thus, we derive the factors responsible for influencing money supply. If net foreign assets rise, they cause a rise in money supply. An increase in domestic credit, that is increase in loans to the public by commercial banks, and loans to the government by the commercial banks and by the central bank also leads to rise in money supply.

Government borrowing (PSBR) comprises borrowing from the non-bank public, commercial banks and central bank. This is given by:

$$\text{PSBR} = \text{GP} + \text{GB} + \text{CG} \quad (4)$$

where PSBR = Public sector borrowing requirements and
GP = government borrowing from the public

Manipulating (4), we get

[□] This appendix is based upon the contributions of Fry, Goodhart and Almeida (1996), Hossain and

$$CG = PSBR - GP - GB \quad (5)$$

Substitution of (5) into (3) yields,

$$M = PSBR - GP + LP + NFA$$

This is the basic relationship used by the International Monetary Fund (IMF) in its stabilisation programmes. There are two sources of money creation. The first is changes in the banking system's total domestic credit, DC which is expressed in terms of public sector borrowing requirements minus borrowings from the public plus loans from the commercial banks to public, which is given by expression: $PSBR - GP + LP$, and the second is changes in net foreign assets.

The system of monetary policy implementation is a process of monitoring and reacting to changes in DC. The purpose is adjusting domestic credit to achieve a stock of money consistent with a target net foreign assets. The latter is the outcome of a balance of payments forecasting exercise. To facilitate the monitoring exercise the central bank undertakes periodical projections of key monetary variables.

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