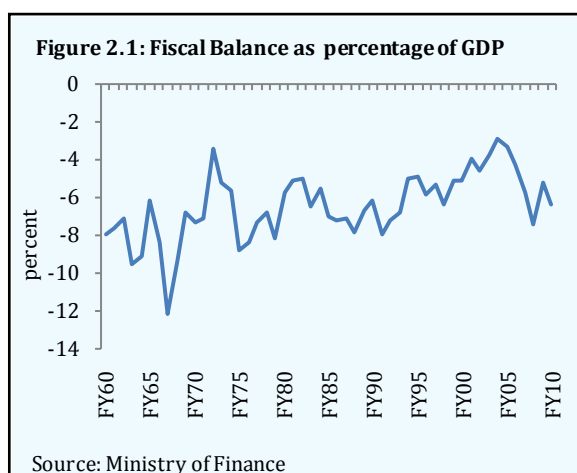


2 GOVERNMENT BORROWING FROM THE BANKING SYSTEM: IMPLICATIONS FOR MONETARY AND FINANCIAL STABILITY

2.1 Introduction

Expansionary fiscal policies driven by large financial rescue programmes, and the need for providing necessary stimulus to ailing economies during the ongoing global financial crisis, have led to a situation where the fiscal position of major advanced economies has deteriorated dramatically, to levels not seen since the Second World War. The extent and pace of deterioration (government debt to GDP ratio exceeding 100 percent in some cases) has been such that stringent austerity measures are now being frantically adopted and implemented to bring down the budget deficits to more sustainable levels. This is in recognition of the fact that high levels of public debt raised to finance these deficits, serve to increase these economies' vulnerabilities to adverse shocks, reduce their long-run growth potential and endanger prospects of monetary stability.¹

In comparison, Pakistan's fiscal deficit at 6.3 percent of GDP for FY10 might seem rather innocuous. However, when viewed in a historical perspective, it comes to light that Pakistan's economy has faced, since inception, perennial and persistent fiscal deficits, varying from as low as 2.9 percent to as high as 12.2 percent of GDP (**Figure 2.1**). On one hand, this emanates largely from insufficient revenue generation due to lack of appropriate governance measures which tend to encourage tax evasion, and a substantially large and thriving undocumented or parallel economy functioning alongside. Rigidity in expenditures such as those for defense and subsidies, and interest payments on accumulated debt to finance the persistent deficit, represent the other side of the coin.



Poor fiscal discipline is only aggravated by the weak management of government's existing aggregate cash balances with the banking system, and by the lack of cash flow forecasting. In the absence of an effective Treasury Single Account (TSA)² which consolidates all government cash balances (amounting to Rs. 553 billion at end-FY10) into a single account at the central bank, impedes government's ability to accommodate temporary fiscal shocks.

A direct consequence of these factors is an inordinate reliance of the government on borrowings to finance the budgetary deficit. Notably, there are persistent deviations in the estimated financing mix of the fiscal deficit. While external borrowing sources are rather limited and have proved to be unpredictable in their timing, government's ability to fall back on non-bank financing is also constrained by its 'on tap' nature for individuals and institutions, which causes the receipts and repayments of such flows to remain largely unpredictable. As a consequence, the government finds it most feasible to turn to the banking system, including both the State Bank of Pakistan (SBP) and the commercial banks, to meet its financing needs.

¹ BIS Annual Report, 2009-10.

² A Treasury Single Account (TSA) is an essential tool for consolidating and managing government's cash resources, thus minimizing borrowing costs, IMF (2010).

With this brief introduction, this chapter focuses on the *financing* aspect of the fiscal deficit, on how issues related to revenue shortfall and weak cash management are resolved by borrowing, primarily from the banking system, and the implications of such borrowing for monetary and financial stability. The chapter is structured as follows. Section 2.2 gives an overview of the state of public finances in the country, and issues related to the weak revenue generation and poor cash management. It also provides a brief overview of the financing mix of the budget deficit. Section 2.3 gives an overview of government borrowing from the banking system, focusing on government borrowing from the central bank and commercial banks. Section 2.4 discusses the presence of the government and behavior of financial markets. Section 2.5 concludes the chapter by discussing implications of such borrowing for monetary and financial stability.

2.2 Public Finances³

Prudent fiscal management helps mobilize national savings, motivates efficient resource allocation and facilitates sustainable economic growth. Pakistan has historically had large fiscal deficits, with the growth in expenditures outpacing revenues. The highest ever fiscal deficit was 12.2 percent of GDP in FY67, following the war with India in 1965, whereas the highest decade-wise average was 11.6 percent of GDP in the 1980s. In the current decade, the Fiscal Responsibility and Debt Limitation Act (FRDL) was promulgated in 2005 to entrench fiscal discipline in the economy (**Box A1 in Appendix**). While the fiscal deficit remained at generally manageable levels upto FY07, it increased to 7.6 percent in FY08, breaching the requirements of the FRDL,⁴ with a consequent need for financing.

2.2.1 Fiscal Position and Need for Borrowings

One of the primary reasons attributed to the historically weak fiscal performance is that revenue growth has not kept pace with economic growth. Revenue generation has been historically sluggish, with the tax to GDP ratio increasing by a mere 2.3 percentage points over a period of five decades. Compared to the region, Pakistan and Bangladesh have the lowest tax to GDP ratio at 9.2 and 9.3 percent respectively, in 2009 (**Table 2.1**). Taxes are a crucial component of the country's revenue structure, forming a share of more than 70 percent in the revenue base in FY10 (**Table 2.2**).

Table 2.1: International Comparison of Fiscal Indicators 2009
percent

	Tax/GDP ratio	Direct tax/total tax	Budget deficit/GDP
Pakistan	9.2	36.5	6.3
India	12.6	52.6	8.9
Bangladesh	9.3	22.9	5.0
Sri Lanka	12.8	22.5	9.8
Malaysia	14.8	49.9	4.8
France	42.8	24.1	5.0
UK	37.3	35.7	4.9
USA	26.9	51.6	6.5

Source: OECD website, and respective central bank websites

However, there has been little improvement in tax mobilization over the years, with the tax to GDP ratio ranging between 9.5-11.5 percent of GDP during the current decade. The low tax to GDP ratio primarily emanates from a narrow tax base, given that even in periods of high economic growth as in FY05-FY07, it averaged at 10.3 percent of GDP. Tax mobilization is heavily skewed towards the industrial sector which contributed 63 percent of total taxes in FY10 (**Table 2.3**).

On the other hand, the agriculture sector which has a share of 22 percent in GDP, contributes only 1 percent to the total tax collection.⁵ In terms of tax incidence, there are 2.8 million

³ Historical data used in this chapter is from 1960 onwards.

⁴ The FRDL criterion for total public debt to be reduced by no less than 2.5 percent of GDP was breached for the third consecutive year in FY10.

⁵ Pakistan Economic Survey 2009-10.

Table 2.2 Summary of Consolidated Public Finance

Amount in billion Rupees

	FY05	FY06	FY07	FY08	FY09	FY10
Total Revenue	900.0	1,076.6	1,298.0	1,499.4	1,850.9	2,078.2
Tax Revenue	659.4	803.7	919.3	1,065.2	1,316.7	1,472.8
Non-tax Revenue	240.6	272.9	378.6	434.2	534.2	605.3
Total Expenditure	1,117.0	1,401.9	1,675.5	2,276.5	2,531.3	3,007.2
Current	864.5	1,034.7	1,375.3	1,857.6	2,041.6	2,386.0
Development and net Lending	227.7	365.1	424.7	423.4	455.7	652.8
Unidentified	-78.5	-86.3	-124.5	-4.4	34.0	-31.6
Revenue Surplus/Deficit	-43.0	-44.4	-77.4	-358.2	-190.7	-307.8
Overall Deficit	-217.0	-325.3	-377.5	-777.2	-680.4	-929.1
as percent of GDP	-3.3	-4.3	-4.4	-7.6	-5.3	-6.3
Financing through:	217.0	325.3	377.5	777.2	680.4	929.1
External Sources	120.4	148.9	147.2	151.3	149.7	188.9
Internal Sources	96.6	176.3	230.4	625.9	530.7	740.2
Banking System	60.2	70.9	102.0	519.9	305.6	304.6
of which						
Central Bank	152.9	132.3	-58.7	676.9	114.0	41.9
Scheduled Banks	-92.7	-61.4	160.7	-157.0	190.6	262.6
Non-bank	8.1	8.1	56.9	104.3	223.8	435.6
Privatization Proceeds	28.3	97.3	71.5	1.7	1.3	0.0

Source: Annual Report 2009-10, Volume 1, SBP

National Tax Number (NTN) holders in the country, being a mere 1.6 percent of the population. Out of these NTN holders, return filers are only 2 million. The corporate sector which contributes around 66 percent in the total income tax collection has a share of only 1 percent in the income tax base.⁶

In addition to the skewed nature of taxation, the narrow tax base is also attributed to wide-ranging exemptions and concessions, in addition to rampant tax evasion.⁷ Notably, the revenue structure is heavily skewed towards indirect taxes, with a share of 60.3 percent in total tax collections in FY10 (**Table 2.4**). Indirect taxes are largely consumption taxes, with sales tax as the dominant component. Of the net collections of sales tax in FY10, 53.4 percent is contributed by domestic production and sales, while the rest originates from imports.⁸

Incidentally, non-tax receipts which form around 29.1 percent of total revenues in FY10, have an increasing reliance on SBP profits in recent years, as shown in **Table 2.5**. A certain proportion of SBP profits are transferred to the government every year and form one of the single largest source of government's non-tax revenue.

Table 2.3: Sector-wise Contribution in FY10

	percent	
	GDP	Taxes
Agriculture	22	1
Industry	25	63
Services	53	26

Source: Pakistan Economic Survey 2009-10

Table 2.4: FBR Tax Proceeds (share in total collection)

	share in percent	
Tax Head	FY09	FY10
Direct taxes	38.1	39.7
Indirect taxes	61.9	60.3
Sales tax	39.1	38.8
FED	10.0	9.4
Custom Duty	12.8	12.1
Total Tax Collection as % of GDP	9.1	9.1

Source: Ministry of Finance

⁶ FBR Quarterly Review December 2009.⁷ Pasha (1995).⁸ Pakistan Economic Survey 2009-10. The number is based on 9 months data from July-March FY10.

On the expenditure side, development expenditure is far less than current or non-development expenditure, and within current expenditure, defence and interest payments on debt account for more than half of all government expenditure (**Figure 2.2**).

In addition to issues faced on the fiscal front, a fragmented system of handling government receipts and payments and lack of a centralized cash flow system further complicates the situation. Government balances are scattered in several bank accounts all over the banking industry which creates problems for monetary and budget management. Consequently, the government incurs unnecessary borrowing costs by raising funds to cover a perceived cash shortage. Government deposits (amounting to Rs. 533 billion at end-FY10, up from Rs. 366 billion at end-FY07) constitute 11.7 percent of total deposits of the banking system at end-FY10, and are subject to great variation due to mismatches in government's revenue receipts and payments of expenditures, and the large size of its financial transactions.⁹ The implementation of an effective Treasury Single Account (**Box 2.1**) can ensure effective control over aggregate government cash balances, facilitating cash management by minimizing borrowing costs.¹⁰

2.2.2 Financing Mix of Budget Deficit

The constant need for borrowing to finance the budget deficit has resulted in a progressive deterioration of the country's debt position. Pakistan's total debt and liability stock (TDL) surged to Rs. 10.2 trillion by end-FY10, largely driven by the persistently large fiscal deficits since FY08. As a proportion of GDP, the TDL stock was 69.5 percent in comparison with 60.5 percent at end-FY07, an increase of 9.0 percentage points in three years.¹¹ Although there exist various methods of deficit financing, each has its associated macroeconomic implications as elaborated in **Box 2.2**.

While a greater share of the increase in the TDL stock during FY09 was sourced by external debt, FY10 had a larger reliance on domestic debt sources to finance the fiscal deficit.¹² This was primarily due to the lower than targeted external loan inflows and constrained access to international markets. This led to excessive borrowing from domestic sources, with a share of 79.7 percent in total deficit financing. Domestic financing primarily comprises of financing by the banking system (including the central bank and commercial banks), non-bank sources and privatization proceeds. Notably, not only has there been increased emphasis on deficit financing through internal sources, the situation was exacerbated by actual financing increasingly deviating from planned estimates. As a case in point, total financing of the

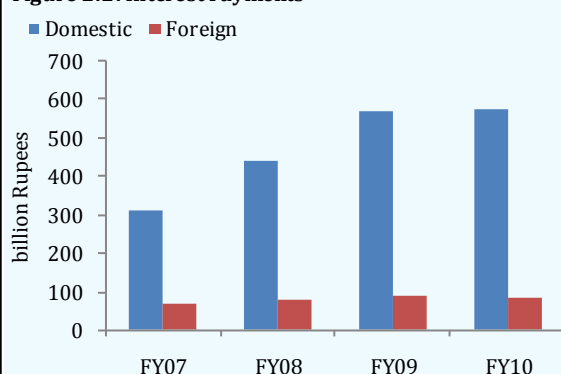
Table 2.5: Share in Non-Tax Revenue Collection
share in percent

	FY08	FY09	FY10
SBP profits	19.5	24.9	38.5
Defense(including CSF)	10.6	11.4	19.1
Development surcharge on petroleum*	3.2	17.3	-
Others	66.7	46.3	42.4
Total Non tax Collection (Bln Rs)	448.7	646.2	605.3

*Development surcharge on petroleum is a part of tax revenue from FY10 onward and is renamed as petroleum levy.

Source: Ministry of Finance

Figure 2.2: Interest Payments



Source: Ministry of Finance

⁹ Special Section III, FSR 2008-09.

¹⁰ IMF (2010).

¹¹ State Bank of Pakistan Annual Report 2009-10, Volume 1

¹² Ibid

Box 2.1: Treasury Single Account

Government banking arrangements are an important factor in the efficient management and control of government's cash resources. These should aim to minimize government borrowing costs and meet expenditure and payments in a timely fashion. Establishing a unified structure of government bank accounts via a treasury single account (TSA) is an attempt towards improved cash management and control. This section aims to elaborate on the concept behind the TSA, its importance in public financial management and its planned implementation in Pakistan.

What is a TSA?

A TSA is a unified structure of government bank accounts that gives a consolidated view of government cash resources. Its primary objective is aggregate control over government cash balances. TSA could be a single account or a set of linked accounts through which the government can manage all transactions (receipts and payments). While it is important to distinguish every cash transaction, this purpose is achieved through accounting transactions and not by holding or depositing cash in transaction specific accounts.¹

The TSA is comprised of three essential features. First, government banking arrangements should be unified to enable the Ministry of Finance (MoF) or the Treasury to have oversight of government balances. It can be structured in a manner so as to contain ledger sub-accounts in a single bank account (not necessarily the central bank). Second, no other government agency should operate bank accounts outside the oversight of the MoF. Third and most importantly, the consolidation of government balances should be comprehensive and should include all balances, budgetary and extra budgetary. The aggregate cash balance maintained at a TSA should be at a level sufficient to meet the daily operational requirements of the government.

Why is it needed?

Perhaps the most important objective of TSA is effective control of cash which is a key element in monetary and budget management. It also aids efficient cash management which is necessary for reducing the need for borrowing by the government to meet its expenditure. Moreover, effective aggregate control of cash in one account also reduces bank fees and transaction costs due to reduced administration costs of maintaining government deposits in different banks. TSA provides timely information on government cash resources which is necessary for efficient and transparent budget planning and implementation. Treasury Single Account also facilitates an efficient payment mechanism since an available adequate buffer of funds lowers volatility of cash flows through the Treasury.

Country Practice and Implementation in Pakistan

Since the central bank acts as a fiscal agent to the government, the custody of the TSA in most countries is with the central bank. However there have been instances, particularly in Latin American countries, where a large publicly owned commercial bank operates the TSA. In the case of Pakistan, government deposits held with various banks amount to Rs 539.4 billion as of September 2010, forming a share of 11.7 percent in the total deposit base. Out of these, deposits of PSEs amounted to Rs 315.7 billion at September 2010 and form a share of 6.8 percent in total deposits. Keeping in view its importance for efficient cash management, the IMF included the implementation of TSA in Pakistan as one of the structural performance criteria and a benchmark for public financial management reforms under the Stand By Arrangement. Although balances of the government and Public Sector Enterprises are transferred to the Treasury Single Account in most countries, this is a relatively new phenomenon for Pakistan.

For the implementation of the TSA, as a first step, the government has converted the previously existing system of Personal Ledger Accounts (PLA) and Special Drawing Accounts (SDAs) into Assignment Accounts with effect from October 1, 2008. Under this new system, all budgetary funds are released into Assignment Accounts, which are then part of the government Consolidated Fund. Being mindful of overall policy implications, the government is seeking technical help from the World Bank for smooth transition to TSA.² A comprehensive survey of government deposits will help in identifying the exact amount of government deposits from scheduled banks to the Consolidated Fund. Effective implementation of TSA is crucial for effective government cash management and has favorable implications for monetary stability.

Sources:

¹Pattanayak, S. and Fainboim, I. (2010), Treasury Single Account: Concept, Design, and Implementation Issues, IMF Working Paper No. 143, International Monetary Fund.

²Transition to a Single Treasury Account: Potential Implications for the Banking Sector, Financial Stability Review 2008-09, State Bank of Pakistan.

Box 2.2: Impact of Different Methods of Financing Deficits

A fiscal deficit may be financed from domestic (bank and non-bank) or external sources. Any assessment of fiscal policy stance would need to take account of the way the deficit is financed, since each method of financing has particular macroeconomic effects and costs.

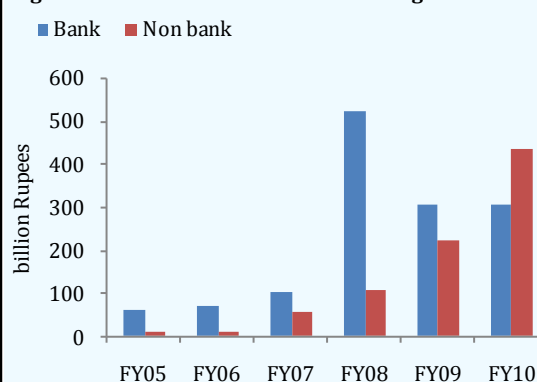
- *Monetization of deficits:* Government borrowing from the central bank directly increases the monetary base, and thus the money supply, and is a source of inflationary pressures. Reliance on commercial bank financing may have a similar effect if banks are not forced by regulatory authorities to limit credit to other borrowers. Where overall credit ceilings apply, borrowing from banks may not be monetized but may absorb credit that could otherwise be available to the private sector.
- *Reliance on nonbank financing:* The scope for domestic non-bank financing is usually a function of how far capital markets have developed and whether there is public demand for government bonds. In addition to market-based security purchases, non-bank borrowing may reflect direct government intervention in the capital market. Thus, the government may require public sector institutions to hold government bonds for liquidity management purposes or may mandate heavily subsidized government savings programs. Such interference in the process of financial intermediation is likely to adversely affect the efficient use of financial savings. Thus while non-bank financing may be less inflationary than monetary financing, it may have a crowding out impact on productive private sector enterprises.
- *Borrowing from Abroad:* Liquid resources obtained from abroad (borrowings) can be used to expand domestic demand as well as imports. However, to the extent that external borrowing facilitates the importation of additional resources from the rest of the world, the impact of a deficit on excess demand for domestic goods and services is reduced. Concessionality is important: for developing countries, foreign financing often contains a grant element, and the larger it is, the more the government can borrow without jeopardizing the sustainability of the fiscal position. In the context of Pakistan, most of the foreign flows are in the form of loans and not grants which does not bode well for the country's external debt liabilities.
- *Accumulation of arrears:* Delays in payments on debt service, or on goods and services purchased, are considered a particularly costly means of financing budgetary commitments. Such arrears are likely to have similar macroeconomic consequences to other forms of public borrowing, as well as jeopardizing future financing, government credibility, and the integrity of the budgetary system. For example, the impact on prices and the balance of payments would be essentially the same whether a deficit is financed by borrowing from the domestic banking system or by accumulating domestic arrears of public enterprises and the private sector, which then borrow from the banking system.

Source: IMF (2003)

budget deficit deviated by Rs 208 billion from estimates in FY10, with domestic financing exceeding the estimated amount by Rs 396 billion.¹³

While financing through the banking system has traditionally been the primary source of funding the budget deficit, it has gained further importance recently, growing by 55.5 percent in FY10. In addition, non-bank borrowing¹⁴ has also become a popular avenue for seeking domestic financing, with a share of 58.9 percent in total financing through domestic sources in FY10 (**Figure 2.3**). Within non-bank sources, financing through National Saving Schemes and short term Treasury Bills is more popular, with a cumulative share of 77.7 percent.

Figure 2.3: Sources of Domestic Financing



Source: Ministry of Finance

It is imperative at this point to elaborate on borrowing from the banking system, specifically analyzing government borrowing from the central bank and from the banking industry, and the associated implications.

¹³ In FY10, Budget estimates for fiscal deficit and hence total financing was Rs 721 billion, while the actual financing availed was Rs 929 billion, making the deviation equal to Rs 208 billion. Moreover, budget estimates for Domestic Financing was Rs 344 billion and actual financing availed was Rs 740 billion, making the deviation equal to Rs 396 billion.

¹⁴ Non-bank sources of financing consist of Prize bonds, Federal Investment Bonds, Treasury Bills, National Saving Schemes and others.

2.3 Borrowing from the Banking System

Notably, there are three types of government borrowings from the banking system: (1) borrowings for budgetary support (from the central bank and the commercial banks), (2) provincial government borrowings from the central bank in the form of 'Ways and Means Advances' to tide temporary imbalances in receipts and payments, and (3) provincial and federal government borrowings for financing quasi-fiscal deficit i.e. commodity operations, borrowings by public sector enterprises (PSEs) and autonomous bodies, and subsidies extended to various government-sponsored special credit schemes.

Government borrowing for budgetary purposes from the central bank constituted a significant 60 percent of borrowing from the banking system (as at end-FY10). Financing provided by the SBP to the government reached its peak in FY08 with a share of 75.8 percent of total deficit financing from the banking system, but declined thereafter with the country entering into a standby arrangement with the IMF (**Table 2.6**).

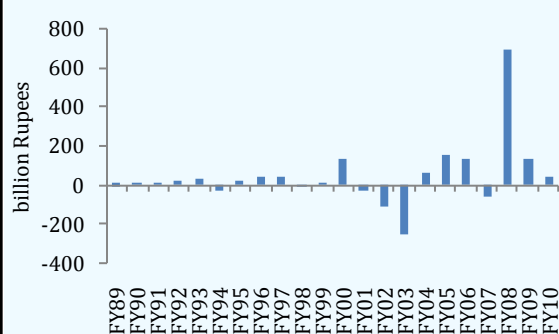
Table 2.6: Share in Net Govt. Budgetary Borrowing (on Cash basis) from the Banking System
percent

	FY05	FY06	FY07	FY08	FY09	FY10	Growth FY10
Through SBP	41.9	56.5	42.0	76.6	69.3	60.6	3.7
Through Scheduled Banks	58.1	43.5	58.0	23.4	30.7	39.4	52.5
Total (billion rupees)	632.5	703.4	805.5	1,325.4	1,630.0	1,934.6	18.7

Source: Monetary Survey, SBP

The scale of total government borrowings from SBP has increased considerably over the last four years. For instance, the stock of Market Related Treasury Bills (MRTBs), the instrument through which the federal government borrows from SBP, increased to Rs. 1,125 billion by end-FY10, from Rs 452 billion at end-FY07. The total stock of government borrowings (MRTBs net of government deposits) from SBP amounted to Rs. 1,209 billion by end-FY10, compared to Rs. 345 billion at end-FY07 (**Figure 2.4**).

Figure 2.4: Government Budgetary Borrowings from the Central Bank (Flows)



Source: SBP

2.3.1 Implications of Government Borrowings from the Central Bank: Theoretical and Practical Underpinnings

Academic literature is rife with theory and empirical evidence of the negative consequences of government borrowing from the central bank. Government borrowing limits the primary central bank function of maintaining price stability. Since borrowing is essentially akin to 'printing of new money', it erodes purchasing power of the local currency in the form of high and persistent inflation and exchange rate depreciation (**Box 2.3**). These problems become more acute when the rise in domestic assets, led by government borrowings from SBP, significantly outpaces growth in foreign assets. Moreover, unscheduled government borrowing from SBP also complicates liquidity management, undermining the credibility of monetary policy. These two important implications are discussed in further detail in the following sections.

Box 2.3: Perspectives on Budget Deficits, Monetary Growth and Inflation

At a very basic level, budget deficits can be financed from taxes or through borrowings from the central bank or depository corporations. However, it is the borrowing from the central bank, or rather the extent of borrowing, which is the key to understanding the linkage between government budget deficits and inflation.¹ Lozano (2008) argues that large and persistent budget deficits in developing countries financed through money creation result in high inflation, which is then a fiscal-driven monetary phenomenon. Moreover, less than efficient tax collection, political instability, and limited access to external borrowing also tend to lower the cost of seigniorage² and hence increase dependence on inflation tax.³ The creation of high powered money, and thus seigniorage as a source of revenue for the government is undertaken by the central bank, with the consolidated budget constraint of the government exhibiting the link between fiscal and monetary policy.

In the quantity theory of money, the pattern of economic activity necessitates a certain level of real money balances and the price level is controlled by the money supply. Given the nominal money supply, the price level is determined as the unique level of prices that will make the purchasing power of money supply equal to real money balances. For a given price level, if changes in the nominal money supply differ from the real money balances, it will be translated into a change in the price level. Hence the price level has to be fully flexible and determined by the exogenous nominal money supply. However, the relation between budget deficit, money growth and inflation is not that straightforward; in the case where inflation is a by-product of non-fiscal disturbances, an increase in price level would reduce the real value of tax revenues and would subsequently affect budget deficits, which would be endogenous to the process. Thus fiscal and monetary policies would exhibit a two-way relationship: changes in inflation would affect the fiscal authority's decisions and have implications for money growth and inflation.⁴

Although there is general consensus amongst academics on the pervasive impact of budget deficit on inflation, the degree of impact differs based on the channels through which it occurs. In the *monetarists'* perspective, budget deficit and its financing through money creation (seigniorage) is regarded as exogenous to the monetary authority. Hence money creation would be dominated by the government's financing needs, which would as a consequence translate into changes in the price level. In an empirical framework, the budget deficit-monetary growth-inflation nexus would require that the first two variables are exogenous while inflation is endogenous to the system. Consequently, in a monetarist world there is (expected to be) a positive correlation between monetary growth and inflation. This channel is specifically exploited in the case of a dependent central bank.⁵

Thus the government might resort to the central bank to finance its deficits or it might put pressure on the central bank to keep interest rates low and reduce borrowing costs.⁶ In short, money growth would be heavily influenced by the financing requirements of the government, with a consequent increase in the price level. This regime, also known as 'fiscal dominance' is close to the spirit of Sargent and Wallace (1981) who accentuated the causality running from budget deficits to money growth and subsequently from monetary growth to inflation.

However, independent central banks might also have an incentive to generate 'surprise inflation' if they perceive that maintaining fiscal sustainability through consolidation is more costly for the economy.⁷ The idea of budget deficits leading to an eventual increase in the price level is also propounded by the fiscal theory of price level using the government's intertemporal budget constraint as their framework for analysis. The theoretical framework behind the *Fiscal Theory of Price level* (FTPL) is built on the intertemporal budget constraint of the government, also understood as the long-term solvency condition of government balances. The government budget constraint is satisfied when the discounted value of the primary surplus is greater than the level of debt. It is important to note that seigniorage revenues are included in the primary surplus whereas the level of money is included in the debt. Hence the relevant public sector is comprised of the central bank and the government. Therefore given a rate of interest, if the primary surplus is lower than the level of debt then the price level has to 'jump' to equalize the budget constraint, hence the price level is the exclusive variable that maintains that specific condition. As a case in point, if there are negative perceptions about the sustainability of public finances, the perception will prompt an increase in the price level, leading to lowering the real value of private portfolios—a negative wealth effect. Hence the FTPL building its relation between fiscal deficit and inflation differs from the monetarist view since money growth plays no role.

In the *New Keynesian* framework, the relationship between money growth, inflation and budget deficit can be derived from two equations; the aggregate supply (inflation equation) and the aggregate demand. The system is based on maximization of the agent's behavior with imperfect competition. Given an output gap and inflation expectations, if agents expect government expenditure to rise in the next period, it is reasonable to expect a slowdown in private consumption in the next period, hence lowering output and inflation. Hence individual expectations about fiscal actions could affect inflation directly and induce money expansion through a higher price level.

Sources:

¹ Sill, K (2005).

² Seigniorage is defined as the real increase in the stock of high powered money (currency held by non-bank public plus bank

reserves) i.e. increase in the stock of high powered money adjusted for the level of prices in the economy.

³ Catao, Luis, and Marco Terrones. (2003), Fiscal Deficits and Inflation, IMF Working Paper WP/03/65, International Monetary Fund.

⁴ Lozano, I (2008), Budget Deficit, Money Growth and Inflation: Evidence from the Colombian Case. Central Bank of Columbia.

⁵ Rother, Philipp.C (2004), Fiscal Policy and Inflation Volatility, ECB Working Paper Series WP No. 317.

⁶ibid

⁷ ibid

Budget Deficits and Inflation in Pakistan

It is a widely accepted view that the inflation-growth trade-off depends on the level of inflation – a low level of inflation may prove to be beneficial and stimulate growth, but at higher levels it is harmful for growth.¹⁵ Empirical evidence shows that the harmful effect of inflation on growth is driven by the volatility in inflation.¹⁶ Cursory data analysis shows a similar picture for Pakistan, where an increase in real GDP growth is followed by a subsequent drop in inflation (**Figure 2.5**). It is important to note that the increase in real GDP growth has been in consonance with a drop in budget deficit. The budget deficit currently stands at 6.3 percent of GDP for FY10. Comparing the deficit across decades, it has declined (average for FY81-90 was 6.3 percent, and for FY01-10 it was 4.5 percent). However, deficit volatility has increased over time, with the budget deficit to GDP ratio being highly volatile in the current decade.¹⁷ Although empirical evidence of the impact of fiscal deficit on inflation seems mixed, however in case of developing countries, the influence is strong, transmitted either through monetary expansion or more directly, through adding on to aggregate demand. Simple graphical analysis also seems to hint the likelihood of this causality: budget deficits as a percentage of GDP and quarter-on-quarter inflation seem to closely follow each other (**Figure 2.6**), especially with the increasing reliance on SBP for financing the deficit (**Figure 2.7**). Borrowing from the central bank reached its peak in November 2008, contributing 29.7 percent to broad money growth,¹⁸ declining subsequently with the start of the IMF-SBA, with quarterly

Figure 2.5: Real GDP and CPI Growth

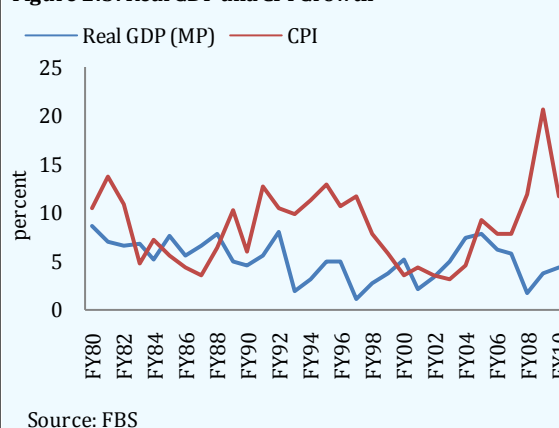


Figure 2.6: Budget Deficit and Inflation

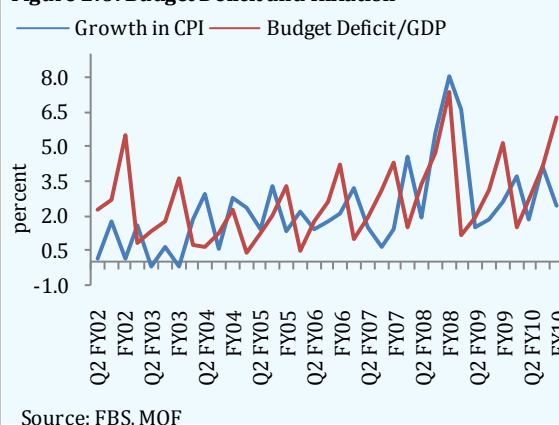
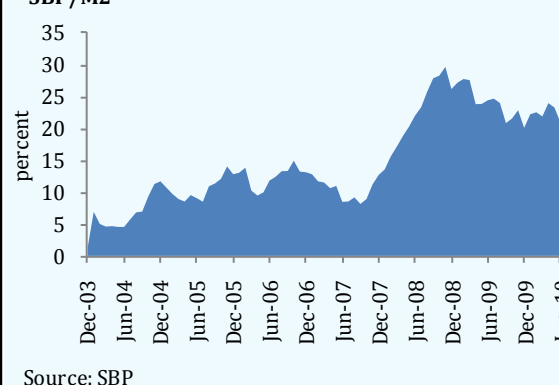


Figure 2.7: Budgetary Borrowing from SBP/M2



¹⁵ Espinoza, Leon and Prasad (2010).

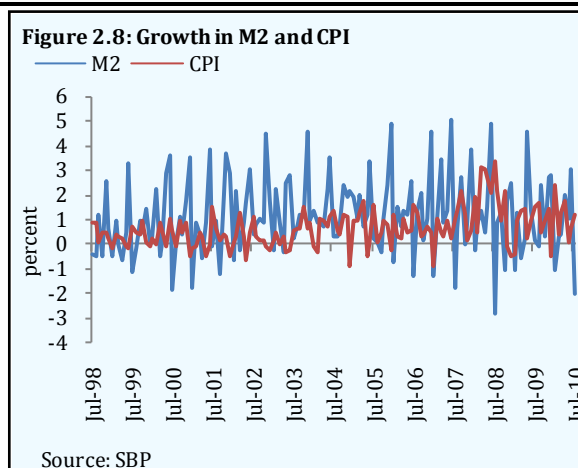
¹⁶ Rother (2004).

¹⁷ Volatility of budget deficits measured through standard deviation for FY81-90 is 0.97, for FY91-00 is 1.03 and 1.42 for FY01-10.

¹⁸ Broad heads clubbed under M2 are credit to the government sector, credit to non-government sector and other items net. Credit to the government sector is divided into net budgetary borrowing, credit for commodity operations, and net effect of zakat funds/privatization proceeds. Historically, the bulk of the credit goes to the government sector.

ceilings on Net Domestic Assets (NDA) of the banking system.

Analyzing the relationship between growth in broad money and growth in MoM CPI reveals that both seem to be moving together, which gives an indication of the existence of fiscal dominance in Pakistan (**Figure 2.8**). This has created challenges for monetary stability. Not only does government borrowing from the central bank lead to inflationary pressures, it also complicates liquidity management.



Government Borrowing and Liquidity Management

Besides its inflationary tendencies, borrowing from the central bank also complicates liquidity management by injecting liquidity in the system through increased currency in circulation. This automatic creation of money complicates the monetary policy transmission mechanism.¹⁹ Furthermore, ease of access to potentially unlimited borrowings from the central bank does not bode well for the government's incentive mechanism to address and resolve structural issues on the fiscal front.²⁰

Government borrowing also creates complications for liquidity management by causing volatility in short-term interest rates. The inability to accurately forecast all government flows on any given day creates difficulties in maintaining adequate liquidity in the interbank market, which results in excessive volatility in the overnight repo rates. In addition to changes in government deposits and deviations from T-bill auction targets, seasonal swings of liquidity due to banks' lending for commodity financing further enhances the uncertainties in liquidity projections, which then permeate to the retail market rates. The movement in interest rates, therefore, is not in accordance with the direction of the prevalent monetary policy stance.

2.3.2 Government Borrowing from Commercial Banks

Besides borrowing from the central bank, the government also has a heavy reliance on borrowing from commercial banks to meet its budgetary requirements. These borrowings are in the form of: (1) selling Treasury Bills (T-Bills), Pakistan Investment Bonds (PIBs) and Ijara Sukuk through the auction system, (2) acquiring bank loans for financing commodity operations, and (3) borrowings by PSEs and other autonomous bodies. Each of these forms of borrowings is assessed in this section, along with their associated implications.

Government Borrowing from Commercial Banks: The Auction System

Before the introduction of Treasury bill auctions in March 1991, the government used to borrow from commercial banks through the 'tap system' by selling 3-month T-Bills at administered rates. Borrowing on 'tap' enabled the government to manage liquidity (through this 'tap') by either selling T-bills, or by injecting money in the market by redeeming already sold bills through discounting. It is generally agreed that the use of tap sales is linked to government's cash management capabilities; if these capabilities are limited, tap sales are a source of timely access to funds. However, the tap system fails to establish a pricing mechanism based upon the supply of funds in the market and their demand thereof by the government. Since banks are generally forced to lend at a fixed rate offered by the government, it further impedes efficient credit pricing for the private sector. Therefore, the

¹⁹ Akhtar (2008).

²⁰ Ibid.

auction system is considered to be a superior alternate to the 'tap arrangement'.²¹

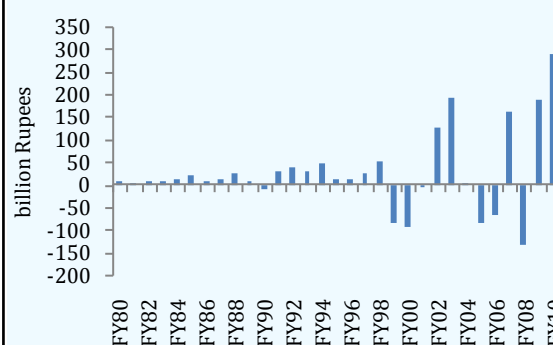
With the onset of financial liberalization and associated reforms, the sale of public debt on tap was replaced with the auction system in March 1991. For this purpose, government introduced two debt instruments, 'Government of Pakistan Market Treasury Bills' of 6-months maturity and 'Federal Investment Bonds' (FIBs) of 1, 3, 5 and 10 years' maturity. FY92 was the first full year of government borrowing through the auction system, with the government raising Rs. 76 billion through 6-month T-Bills and Rs. 45 billion through FIBs.²² In the interest of boosting the corporate debt market and to introduce longer tenor securities, the government decided to launch Pakistan Investment Bonds (PIBs) in December 2000.²³ Assessing the characteristic features of the T-bills auction system used by the central bank reveals that the SBP follows the Multiple Price/Sealed Bid auction mechanism.²⁴

For the implementation of the auction system, a system of 'Approved Dealers' was set in place. Approved Dealers had to ensure a wide distribution of government securities and work for the development of a secondary market. However this system was reformed in 2000 wherein the concept of 'Primary Dealers' was introduced and this continues to date. Presently, T-bill auctions are carried out on a fortnightly basis, conducted every alternate Wednesdays with settlement the next day. Primary Dealers submit sealed tender applications on Tuesday and Wednesday which are opened in public on Wednesday and then a cut-off rate is decided for each tenor. During the period from 1995 to 2009, the cut-off rate was decided by SBP. However, to separate functions of debt and monetary management, the responsibility of deciding cut-off rates was transferred to the Ministry of Finance (MoF) with effect from January 2009.

Depending upon government's borrowing needs and the maturity profile of previous issues, the MoF had started making public announcements of quarterly targets for T-Bills and semi-annual targets for PIBs, from November 2008. In addition to meeting the government's financing needs, T-bill auctions have the embedded objective of developing the secondary market for government debt securities. Banks' participation in T-Bill auctions has increased considerably since FY09 (**Figure 2.9**). With quarterly limits on the increase in NDA under the IMF-SBA since November

2008, government's recourse to central bank borrowing generally remained within stipulated limits²⁵ and it diverted its funding needs towards scheduled banks. Banks on the other hand had already started to show signs of credit restraint given the increase in the stocks of NPLs since end-CY08, and investing in government securities helped them in consolidating their risk profile. **Table 2.7**

Figure 2.9: Government Budgetary Borrowing from Commercial Banks (Flows)



Source: SBP

Table 2.7: Quarterly Trend of T-bill Auctions FY10

Amount in billion Rupees

	Net Target	Net Offered	Net Accepted
Q1	151.3	526.6	159.5
Q2	70.1	388.0	71.9
Q3	28.3	299.4	30.7
Q4	11.1	561.9	80.6

Source: SBP

²¹ IMF and the World Bank (2001).

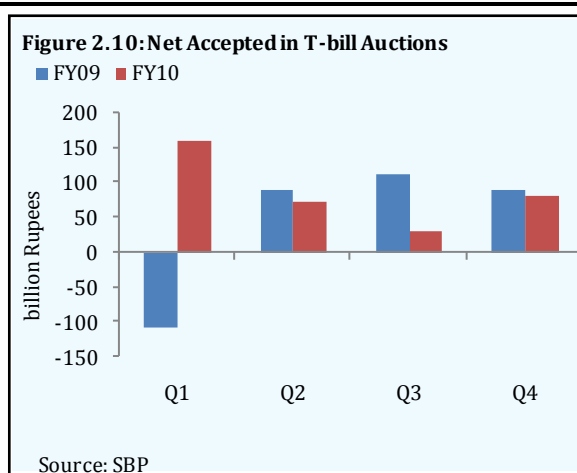
²² Janjua (2004).

²³ Janjua (2003).

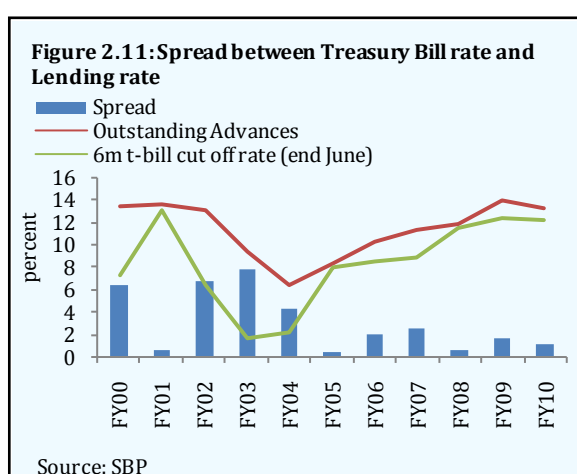
²⁴ In Multiple Price/Sealed Bid auction, bidders submit their individual bid prices and treasury bills are sold if individual bid prices are higher than the cut-off rate. Multiple-price auctions encourage competitive bidding as each player pays the price it bids, not the minimum accepted price. This helps in minimizing the potential risk of manipulation.

²⁵ Government breached its limits in Q3-Q4-FY10.

shows banks' willingness to invest in T-bills as indicated by the increased net (quarterly) amount offered in FY10. On the other hand, the amount accepted also showed a rise (**Figure 2.10**) in Q4-FY10. Net accepted amount in T-Bills auctions was Rs 335.6 billion in FY10 relative to Rs 186.4 billion for FY09, with a rise of Rs 149.3 billion. The higher quantum of borrowing by the government through auctions is due to both delayed and lower than anticipated realization of external inflows, and rising fiscal spending along with low tax receipts during the year.



Notably, banks are generally likely to divert their pool of loanable funds to investments in government securities if they offer a higher rate of return, irrespective of risk considerations from higher NPLs. The spread between the return on loans disbursed to the private sector and the T-bill rate in **Figure 2.11** shows a declining trend which has served as an incentive for banks to invest more heavily in risk-free government securities, rather than lend to the private sector, to the extent that demand for credit exists.



Not only are banks' loanable funds tied up in financing governments' budgetary borrowings, they are also used for financing commodity operations and public sector enterprises, as discussed in the next two sections.

Commodity Finance

Commodity operation of the government is essentially a short term, self-liquidating business, with bank advances utilized to procure, hold and maintain stocks of selected food and non-food items. The advances are subsequently retired as the stocks are sold or exported.²⁶ These operations are conducted with the objective of ensuring availability of essential items, to maintain price stability and to protect consumers from unscrupulous trading behavior. Before the onset of financial reforms in the '90s, SBP used to provide refinance to commercial banks for government commodity financing at pre-determined concessionary rates. However, the commodity financing business was eventually deregulated; SBP discontinued refinancing loans for commodity operations from July 1992 and asked banks to use their own resources for the purpose.²⁷ Subsequently, the interest rate charged on commodity financing was linked to T-Bill rates.²⁸ **Figure 2.12** shows that there has been exponential growth of bank credit for commodity operations during the decade: from Rs 107.4 billion at end-FY00 to Rs 414.2 billion at end-FY10. Around 20 banks are engaged in commodity financing, with the top 5 banks holding a sizable average share of 92 percent.²⁹

²⁶ Janjua (2004).

²⁷ Ibid.

²⁸ BSD Circular No 33, dated December 3, 2001.

²⁹ Period average taken from June 2006- June 2010.

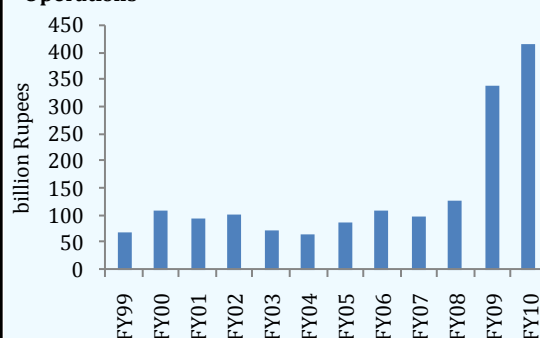
Bank financing for commodities is largely a seasonal activity with the harvest and procurement of the particular crop involved. This is also reflected from **Figure 2.13** which shows the take-off in bank financing for commodity operations at the end of the fiscal year (April-June), corresponding to the procurement of wheat, constituting a sizable share of 79.1 percent in total bank financing for commodity operations. Financing for commodities therefore exerts seasonal liquidity pressures. Decline in bank financing for commodity operations during April is due to the retirement of loans for wheat during Jan-April FY10.

Seasonal liquidity pressure as well as the delays in the retirement of such financing prompted banks to start charging a premium on such loans, despite the risk-free nature of loans extended to the government. A particular evidence of this practice is found in the fact that banks are charging a premium ranging between 1.1-2.8 percent, over and above the 3-month KIBOR, on commodity loans (**Figure 2.14**). This premium emanates from the cost of bank liquidity tied up in such loans, and its ongoing rollover.³⁰ The retirement of such loans in line with the commodity financing cycle would free up liquidity to be utilized for other purposes but delayed retirements and rollovers are leading to both price distortions (loans to government priced higher than loans to the traditionally riskier private sector), as well as the build-up of a circular debt in commodity operations.

Credit to Public Sector Enterprises

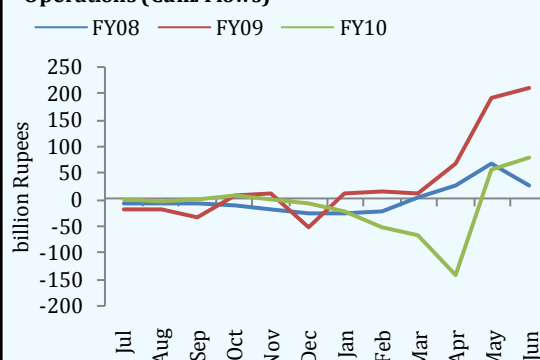
Bank financing to PSEs had a share of 3.1 percent in total credit to the non-government sector at end-FY07, and in a matter of three years this share increased to 10.4 percent by end-FY10. Credit to PSEs has grown by 31.9 percent in FY10 alone, with a large proportion of such advances given to the energy sector. The energy sector faces an acute crisis, with causes stemmed in weak governance of players in the power sector, poor financial management and a disregard for prudent business practices.³¹ Consequently, an inter-corporate debt problem has enveloped different players in the sector: power producers and suppliers, fuel suppliers (including

Figure 2.12: Stock of Credit for Commodity Operations



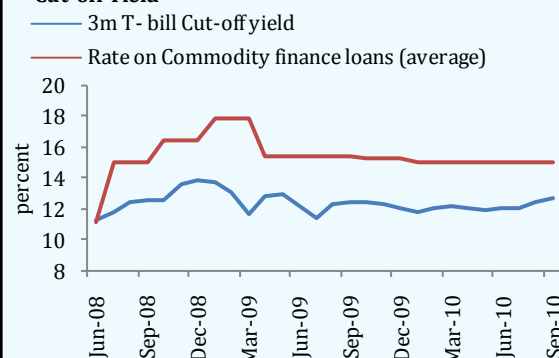
Source: SBP

Figure 2.13 Bank Financing for Commodity Operations (Cum. Flows)



Source: SBP

Figure 2.14: Rate on Commodity Finance and T-bill Cut-off Yield



Source: SBP

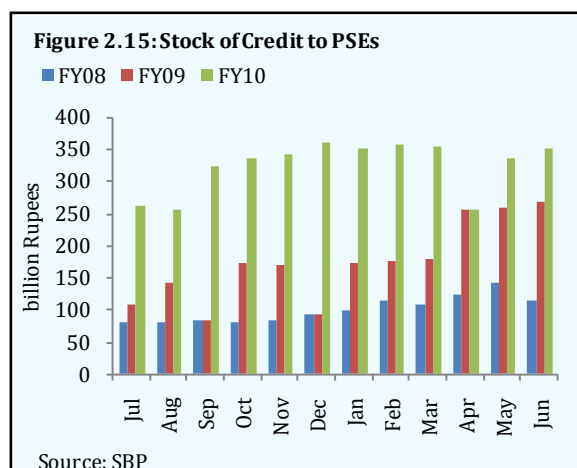
³⁰ This is due to delays in settlement of price differential claims with the government. Details in Box 4.1, "Accumulation of Bank Loans for Commodity Operations", in the First Quarterly Report on the State of Pakistan's Economy 2009-10, State Bank of Pakistan.

³¹ ADB (2009)

refineries and oil marketing companies), with serious ramifications for the economy. Having its origins in low recovery of the cost of electricity production, the circular debt problem first emerged in 2006, however in the recent past the severity of the problem has increased manifold, creating serious bottlenecks in the functioning of the energy sector, and leading to its ultimate recourse to the banking system for financing.

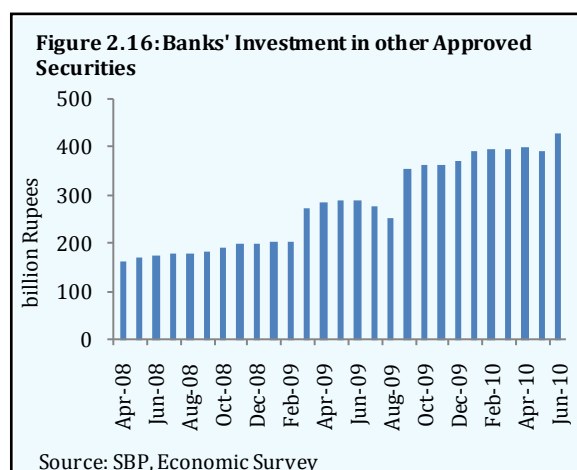
Circular Debt and its ramifications

Advances to PSEs comprised a share of 10.4 percent in banks' total advances to the non-government sector at end-FY10, increasing from 3.1 percent at end-FY07. In absolute terms, credit to PSEs has grown substantially over the years and amounted to Rs 351.4 billion at end-FY10 (**Figure 2.15**). Relative to FY08 when the issue of circular debt started to acquire grave proportions, credit to PSEs has increased almost two-fold in FY10. Not only has banks' exposure to the energy sector increased due to advances to PSEs but they have also simultaneously extended bank loans to private sector entities, leading to a concentration of exposure of in the energy sector (**Box 2.4**).



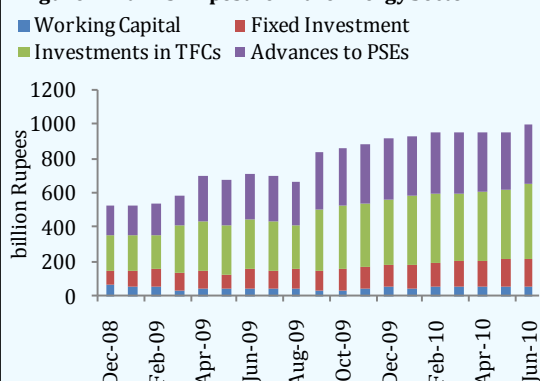
In terms of banks' balance sheet, the exposure exists both in the form of loans as well as investments, given the efforts aimed at partial resolution of the circular debt problem through issuance of Term Finance Certificates (TFCs) by the government which were purchased by banks. These TFCs were launched in March (Rs. 80.2 billion) and September (Rs. 85 billion) 2009 at mark-up rates of KIBOR+1.75-2 percent.

State Life Insurance Corporation (SLIC) also invested an amount of Rs. 3 billion in the second TFC issue. Banks participating in these TFCs have thus made a balance sheet adjustment; increasing their investments under 'Other Approved Securities' and lowering their advances to PSEs with the same amount (**Figure 2.16**). Again, the increased risk of blocked liquidity has led banks to charge a premium on such investments despite the government guaranteed nature of such securities.

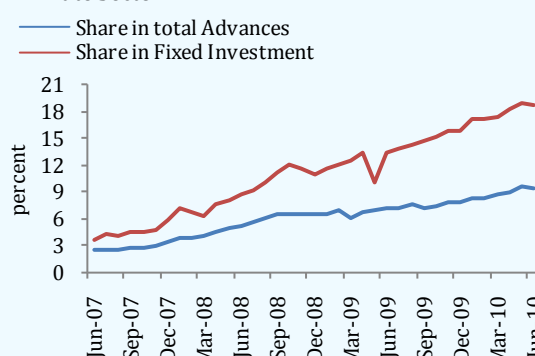


A significant volume of bank lending to the public sector can potentially have a detrimental impact on financial development. While credit to the public sector is favorable for banks' risk profile (with a lower weight in risk-adjusted assets) and its profitability, it generally tends to reduce the efficiency of financial intermediation.³² It is also argued that extending such credit not only impacts the quality of financial development, but also adversely impacts the process of financial deepening, since banks earning relatively risk-free

³² Hauner (2006).

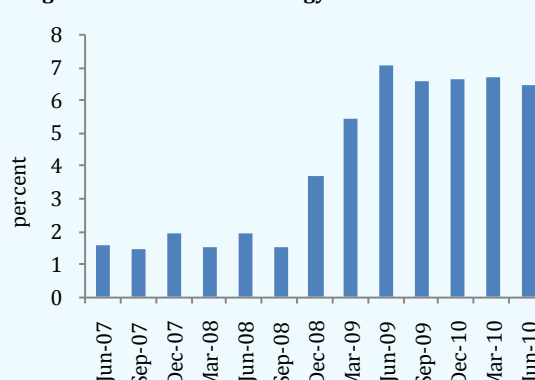
Box 2.4: Banks' exposure in the Energy Sector**Figure 1: Banks' Exposure in the Energy Sector**

Source: SBP

Figure 2: Share of Electricity sector in Advances to Private Sector

Source: SBP

Analyzing concentration in the energy sector reveals that bank's funds are not only locked in advances to public sector enterprises, but they have also disbursed advances to the private sector for working capital and fixed investment purposes (**Figure 1**). The share of advances to electricity, gas and water sector (firms in the private sector) in total advances has witnessed a rising trend, from almost 1 percent in June 2003 to 9.8 percent in June 2010 (**Figure 2**). Disaggregating banks' advances to the private sector by purpose of loan i.e. working capital (to meet running finance needs) or fixed investment (to finance capital expenditure) categories reveals that almost 18.7 percent of private sector credit was for fixed investment while a small share of 3.8 percent was used for working capital needs. This is a healthy development as it reflects that new projects are being undertaken to meet existing energy demands of the country.

Figure 3: Share of NPLs Energy Sector in Total NPLs

Source: SBP

Associated with the increase in credit disbursement to the electricity sector, there has also been a rise in the non-performing loan portfolio of banks in the sector. From a share of 1.5 percent in June 2007, NPLs in the electricity sector constitute a share of 6.5 percent at June 2010. Energy sector NPLs saw a significant quarterly growth in December 2008, increasing by 172 percent, but this has slowed down considerably and declined by 2.5 percent in June 2010 (**Figure 3**).

returns from the public sector have little incentive to further enhance financial intermediation.³³

Notably, banks in most developing countries do not get sufficient premium (risk adjusted return) on private sector lending, thus resorting to lending heavily to the public sector when the opportunity arises. This phenomenon is particularly exacerbated when the economy is facing a recession and the premium demanded on lending to the private sector is high due to the higher probability of risk of deterioration of credit quality. In that case, banks would first lend to the government and direct the residual portion of their loanable funds to the private sector. This risk aversion on part of banks can potentially lead to private sector being crowded out. The following sections elaborate on how the presence of the government in the financial sector, specifically in a time of downturn, can create risk aversion on part of banks, thus resulting in crowding out of credit to the private sector. However a contrasting view, the

³³ Ibid

'lazy bank hypothesis', also exists as elaborated by Emran and Farazi (2009), according to which banks accumulating risk-free government securities become complacent in their risk-taking approach, which reduces their incentives to expand exposure to the private sector.

2.4 Presence of Government and Behavior of Financial Markets

2.4.1 Risk-Averse Nature of Banks

Textbook definition of risk aversion entails investors choosing options giving maximum reward for a minimum level of risk. Main factors which affect risk-taking include corporate ownership structure (managerial decision making), institutional environment (regulatory regime), overall economic environment (booms, recessions) and drive to diversify portfolio (subject to capacity and choice constraints).

Corporate risk-taking behavior, among other things, is determined by the interaction of principal and agent, asymmetry of information between the two and the choice of capital structure by the firm. In contrast to non-financial firms, financial institutions' debt is a complex issue as they raise deposits from corporations, households and government. Deposits being inherently stochastic in nature may be withdrawn anytime by any quantum. This factor instills a fundamental difference between the risk-taking behavior of financial institutions, in particular that of banks, and non-financial firms. Factors affecting risk-taking behavior of banks, as mentioned above, include incentive to diversify portfolio, ownership structure, and regulatory environment.

Banks in their capacity as financial intermediaries have the option to choose between two alternatives they can possibly offer their loanable funds to – public versus private sector. According to the *loss aversion*³⁴ philosophy, the psychology of an economic agent does not work symmetrically with respect to loss and profit. Loss induces extra conservatism as compared to the impact of profit on risk appetite when an economy is in a boom period. Therefore, banks hold on their loanable funds more tightly when they face or expect to face a downturn in the form of rising volume of non-performing assets on their balance sheets. A well diversified portfolio fetches a higher return for a given level of risk – a step towards portfolio optimization.³⁵ This in turn depends on possibilities to diversify the portfolio between lending versus investing opportunities, and between private versus public sectors, etc. Generally, the decision function in this regard is the blend of internal environment of the financial institution and the external setup (macro-economy) in which it operates. Normally, opportunities offering stable cash flows and lower risk-weights³⁶ provide flexibility in terms of liquidity and offer relatively more control over setting and surviving contracts, etc.

As in any other corporate firm, individual banks have a pre-defined criteria and policy with regard to the level and nature of risk they intend to take. In such a setting, higher investment in risk-free government securities leaves them with extra room to undertake riskier private sector ventures. In simple words, higher proportion of government securities (debt) would create incentives for banks to take on extra risk in their private sector lending activities. However, the alternate view with regard to portfolio diversification between private and public sector exposure, popular known as 'lazy banks hypothesis' promoted, among others, by Emran & Farazi (2009), says that as banks start accumulating risk-free government securities the moral hazard problem distorts their incentives inducing them to limit their exposure towards the private sector.

In game theoretic terms, an inter-temporal bank-model envisages that banks lend to private sector in the first period and, under stress conditions in the second period, accumulate non-

³⁴ Popular proposition in experimental and behavioral finance proposed under 'Prospect Theory' by Kahnemann and Traversky (1979).

³⁵ Concepts promoted by Markowitz (1952), Sharpe (1964), Tobin (1958) and others.

³⁶ In the calculation of CAR.

performing assets or uncertainty about cash flows from their assets, which leads to higher volatility of earnings in the next period. This eventually causes banks to develop a conservative attitude towards lending to the private sector. In such circumstances if lending to government sector, which by definition offers sovereign guarantee, is possible then banks consider public sector as secure and start lending to and investing in government owned, sponsored and guaranteed institutions. Moreover, capital charge on risky activities increases the cost of doing business. From banks' perspective, the failure of the private sector to match risk-adjusted returns offered by the public sector induces them to rebalance their portfolios in favor of the public sector. Pakistan offers a classical example where accumulation of non-performing assets since end-CY08, which invoke additional provisioning requirements, has promoted risk-averse behavior among banks and that has further been augmented by factors like: (1) persistently high fiscal deficit and consequent high demand for bank borrowing has become interest- and income-inelastic; (2) due to cyclical pressures, private sector demand for loanable funds is further depressed by its inability to match higher returns offered on government securities; and (3) on aggregate basis there are net retirements of bank credit by private businesses.

Similar to other developing countries, portfolio choices for banks in Pakistan are limited on account of the under-developed or missing markets for equities, debt securities, hybrid instruments and derivatives. On the basis of a sector-wise classification, it can be seen that even if banks try to diversify their portfolios the only choice available to them is between investing in government securities or disbursing advances to the private sector. To make things even worse, the demarcation of public sector is hugely vague with implicit guarantees being provided to many PSEs despite their tarnished credit risk profiles. Nevertheless, the legal and supervisory structure of the country keeps sponsoring creditworthiness of dying PSEs. Given banks' heightened risk-aversion, their loanable funds have been diverted to the public sector, though lately banks have started charging an additional risk premium (compared to the return on Treasury bills) even on seemingly risk-free loans.

Risk aversion of the banks can also be judged by their behavior in the inter-bank market. Subsequent to the introduction of the interest-rate corridor facility in August 2009, banks have shown preference to place their funds at the floor rate of the corridor with the central bank instead of trading their excess funds (on short term repo basis or in doing outright transactions) in the money market. This shows that they are risk averse to such an extent that they prefer to trade with the central bank but not among themselves.³⁷ Risk-averse behavior of banks has thus been a factor attributed towards dampened credit to the private sector. This is discussed in the following section.

2.4.2 Private Sector Credit and Growth

In many countries private sector credit has played a critical role in serving as an engine for economic growth.³⁸ Economists have highlighted the role of banks in not only promoting economic growth but in driving innovation and providing a stimulus to the economy by funding productive investments.³⁹ Financial sector plays a fundamental role in the allocation of savings to productive enterprises, favoring economic efficiency and capital accumulation.⁴⁰ Rapid credit growth can induce financial deepening which eventually benefits economic growth.

Although academics are in broad agreement on the beneficial impact of private sector credit on growth, the more important and yet unsettled question is the impact of public policy on private investment. Debates exist in academic literature on the extent to which public and

³⁷ A similar situation was seen after the onset of the Greece sovereign-debt crisis, when most of the European banks started to place their funds with the ECB instead of lending them to other banks in the market.

³⁸ King and Levine (1993b).

³⁹ Levine and Zervos (1998).

⁴⁰ Cottarelli, Ariccia and Hollar (2003).

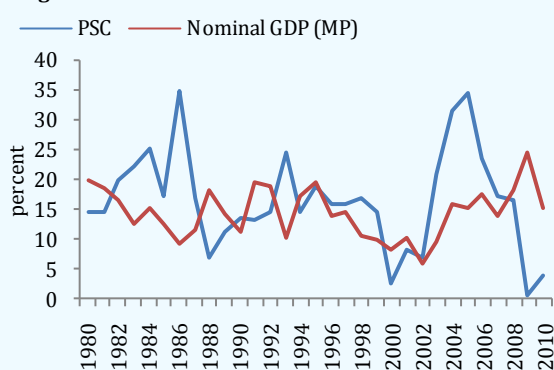
private sector investments are complements or substitutes.⁴¹ It is argued that private and public sectors compete for scarce resources, which drives up their prices. In case public investments are financed by borrowing, market interest rates increase, raising the cost of capital for the private sector and eventually leading to crowding out of private investment.⁴² On the other hand, public investment in infrastructure is generally believed to exert a positive impact on private investment.⁴³ These projects involve large sunk costs and take a longer span of time to become profitable, enabling the private sector to potentially benefit from the spillovers of such projects during and after their completion. These arguments are dealt with in more detail in **Box 2.5**.

Private sector credit in Pakistan

The onset of financial liberalization during the early 1990s led to the take-off of private sector credit when credit arrangements were made more flexible and closer to the market mechanism. The introduction of the credit to deposit ratio during FY93, after the abolition of the credit ceilings regime implemented earlier, bolstered growth in private sector credit (**Figure 2.17**). Credit to the private sector exhibited another period of growth from 2002-05 aided by substantial foreign direct investment and general economic growth in the country. More recently, private sector credit has witnessed a slump owing to macroeconomic imbalances, rising non-performing loans (affecting the supply of funds) and a general recessionary trend in the economy (affecting demand for funds). Moreover, credit to the private sector has also been affected by banks' risk-averse attitude and increased appetite for funds by the government.

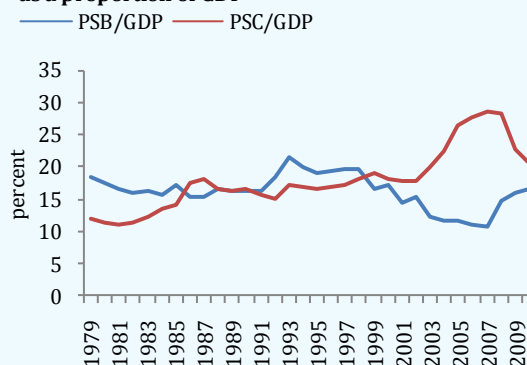
Although private sector credit has shown a slight recovery recently, growing by 3.9 percent in FY10 relative to 0.6 percent in FY09, however the sustainability of its recovery remains tenuous. **Figure 2.18** illustrates private sector credit and public sector borrowing as a proportion of GDP. The graph exhibits an off-setting trend between the two. Decline in credit to the private sector has also been a consequence of increase in interest rates due to monetary tightening by the central bank to keep inflation in check. **Figure 2.19**

Figure 2.17: Private Sector Credit and Growth



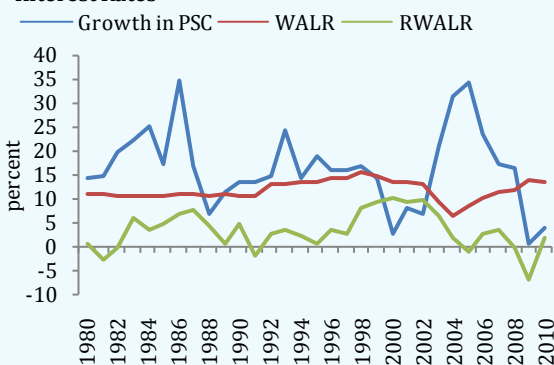
Source: SBP

Figure 2.18: Private Sector, Public Sector Borrowing as a proportion of GDP



Source: SBP

Figure 2.19: Growth in Private Sector Credit and Interest Rates



Source: SBP

⁴¹ Alani (2006).

⁴² Ibid.

⁴³ Erden & Holcombe (2005).

Box 2.5: Impact of Increase of Government Expenditure on Private Investment: Theoretical Perspectives

Fiscal stimulus, through an increase in spending on goods and services, raises aggregate demand at given values of the current and future expected price level, money wage, interest rates, exchange rates and other asset prices. Specifically in the IS-LM framework, expansionary fiscal policy leading to a movement of the IS curve to the right in the interest rate-output space, might still not affect output and employment due to '*financial crowding out*' through higher interest rates. In the case that fiscal expansion is financed through borrowing, domestic private savings that could otherwise have been available for private sector lending are used up. As a result, a smaller residual of loanable funds in the market raises the cost of capital for private borrowers, subsequently reducing private investment demand, and hence capital accumulation, growth and welfare.¹

In addition to a dampening impact on growth, expansionary fiscal policy through increased demand also leads to the creation of inflationary pressures in the economy. 'Factor market' crowding out also occurs through rising real wages and other factor costs and heightened inflationary pressures.² Moreover, increased government borrowing leading to higher interest rates through creation of a higher demand for money, would crowd out investment sensitive to interest rates. This perspective on crowding out is in accordance with the monetarists' viewpoint. According to the *monetarists* view, the expansion in government expenditures after a relatively short transition period, displaces or crowds out an equivalent magnitude of private expenditures. Increase in government expenditures in the presence of no change in money supply, increases output, income and the transaction demand for money. In the presence of a constant supply of money, increase in the transaction demand for money and the supply of debt results in an interest rate increase, thus hampering the ability of businesses to spend on plant and equipment and other consumer durables. The net implication-expansion in federal government sector comes at the expense of the private sector (crowding out impact) unless the money supply is expanded in the process.

In contrast, the *Keynesian* view provides an argument for the beneficial impact of budgetary deficits on private investment. In the event of unemployment and interest sensitivity of investment, expansionary fiscal policy will lead to little or no increase in the interest rate and increase output and income. Budget deficits hence increase domestic production, causing private investors to become more optimistic about the future course of the economy and invest more. Government spending hence increases private investment due to the positive impact of spending on investor expectations. The Keynesian view hence endorses crowding-in of private investment. Keynesians agree with monetarists when the economy is operating at full employment.³ More directly, if the economy is at full employment, any increase in government purchases shifts resources away from the private sector. This phenomenon is sometimes called '*real crowding out*'. The likelihood of real crowding out also occurs when the increase in public investment displaces private capital formation on a *dollar for dollar* basis. The negative repercussions can be moderated if the government uses its deficit on productive expenditure, i.e. investment in education, training, health or research.

According to the *neo-classical* view, individuals plan their consumption over their entire life cycles. By shifting taxes to future generation, budget deficits increase current consumption. By assuming full employment of resources, they argue that increased consumption leads to a decline in savings. The neoclassical loanable funds theory explains that the balances of savings and investment will be solved by the interest rate mechanism. (the interest rate will bring savings and investment into equilibrium) This leads to a rise in interest rates to bring capital markets in equilibrium. High interest rates however, result in a decline in private investment hence having a crowding out impact.

There is also the *Ricardian equivalence approach* advocated by Barro (1989) which states that an increase in budget deficits leading to an increase in government spending must be paid either now or later. Hence the present value of an increase in receipts is equivalent to the present value of spending. Therefore, a cut in today's taxes must be matched by an increase in future taxes, leaving interest rates and thus private investment unchanged.

Sources:

¹Abbas, S. M. Ali (2010), The Role of Domestic Debt Markets in Economic Growth: An Empirical Investigation for Low Income Countries and Emerging Markets. IMF Staff Papers, Vol.57 No.1, International Monetary Fund.

²Alani, E.A (2006), Crowding-out and Crowding-in Effect of Government Bonds Market on Private Sector Investment (Japanese Case Study), Institute of Developing Economies Discussion Paper No.74

³Buiter, W.H (2009), The Limits to Fiscal Stimulus, International Macroeconomics Discussion Paper No.7607, Centre for Economic Policy Research, London.

illustrates the relationship between growth in private sector credit and weighted average interest rates. Specifically, a negative relationship exists between private sector credit and real weighted average lending rates (RWALR).⁴⁴

2.5 Implications for Monetary and Financial Stability

As clearly evident from the assessment presented in the chapter, government's inordinate reliance on the banking system for financing the fiscal deficit has grave implications for both monetary and financial stability.

For one, borrowing from the central bank is akin to printing money, and feeds directly into inflationary pressures. In effect, such monetization of the fiscal deficit dilutes the monetary policy stance, as has been the case in Pakistan where the impact of monetary tightening in controlling inflation has only been partially successful given government's heavy reliance on borrowing from the SBP. Recently, there have been amendments in curtailing government's inordinate borrowing from the central bank which include amending the SBP Act including explicit limits on government borrowings from SBP.⁴⁵ Cross-country comparison of central banks shows that besides having a legislative structure present for curtailing borrowing, quantitative targets have also been set (**Box A2 in Appendix**).

Financing from the central bank hence jeopardizes monetary stability. Empirical evidence suggests that persistently high inflation has a negative correlation with economic growth. Cyclical patterns in the economy in turn have an inverse relationship with non-performing loans, the major indicator of the quality of advances of the banking sector. Rising NPLs in a recessionary period, as seen most recently in CY08 and CY09, have a detrimental impact on banks' financial health, and hence on financial stability. Furthermore, large amount of bank lending to the public sector can potentially have an adverse impact on financial development. Credit to the public sector carries a sovereign guarantee and is generally favorable for banks' risk profile in terms of a lower weight in risk-adjusted assets.

Although lending to the public sector has a positive impact on banks' profitability, it distorts banks' incentives and the process of financial deepening since banks earning relatively risk-free returns from the public sector have little incentive to develop the banking market.

In recognition of the negative consequences of borrowing from the central bank on both monetary and financial stability, and in compliance with the structural performance criteria in the IMF-SBA restricting such borrowings, the government looks to meet its funding needs from commercial banks in the form of T-Bills and PIBs auctions and borrowing for commodity operations, in addition to quasi-fiscal borrowing by PSEs. Such borrowing carries implications for banks' incentives to undertake risky ventures when profitability can still be maintained, or even enhanced, by investing in government securities. This is particularly true for banks looking to consolidate their risk profile given the rising stock of NPLs in the last two years. Finding the government to be a captive client, banks' behavior to lend more to the government and public sector impedes the process of productive activity in the economy, more so in a period of rather gradual economic recovery. This then causes crowding out of the private sector, which in turn carries long term implications for economic growth, with feedback impact on banks' asset quality and hence financial stability.

⁴⁴ Real weighted average lending rates are calculated as nominal weighted average rates adjusted for inflation. Inflation figures used are Year-on Year CPI.

⁴⁵ Source: Monetary Policy Decision 29th November, 2010. Other measures taken are to widen the tax net through introduction of Reformed GST along with other tax measures and effectively contain power sector subsidies.

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Appendix

Box A1: Fiscal Responsibility and Debt Limitation (FRDL) Act, 2005

The Government of Pakistan showed its commitment to reduce its debt burden and instill fiscal discipline with the promulgation of the Fiscal Responsibility and Debt Limitation (FRDL) Act on June 13, 2005, with the objective of eliminating revenue deficit and reducing public debt to a prudent level by effective debt management. The preparation of the debt-reduction path/strategy is the responsibility of the Debt Policy Co-ordination office (DPCO). The salient features of the FRDL Act are detailed below:

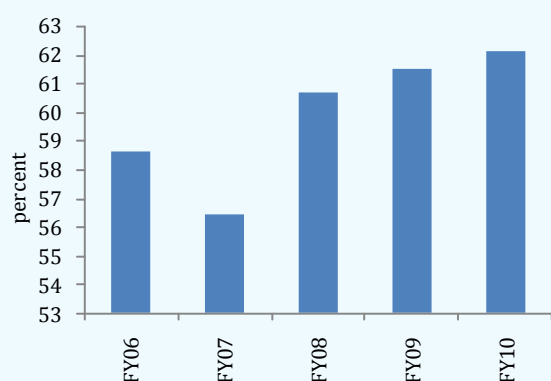
- Ensure that within a period of 10 financial years beginning from July 1, 2003 and ending on June 30, 2013, the total public debt at the end of the 10th financial year does not exceed 60 percent of the estimated GDP for that year, and thereafter maintaining total public debt below 60 percent of GDP for that year.
- Ensure that in every financial year, beginning from July 1 2003, and ending on June 30, 2013, the total public debt is reduced by no less than 2.5 percent of the estimated GDP for any given year, provided that the social and poverty alleviation expenditures are not reduced below 4.5 percent of the estimated GDP for any given year, and budgetary allocation to education and health, will be doubled from existing level in terms of percentage of GDP during the next 10 years.
- Reduce revenue deficit to nil not later than June 30, 2008, and thereafter maintain a revenue surplus. Revenue deficit is the difference between total current expenditure and total revenue of the government which indicates increase in liabilities of the government, without a corresponding increase in assets.
- Not issue new guarantees, including those for rupee lending, bonds, rates of return, output purchase agreements and all other claims and commitments that may be prescribed, from time to time, for any amount exceeding 2.0 percent of the estimated GDP in any financial year, provided that the renewal of existing guarantees shall be considered as issuing a new guarantee.

Evaluating the Act

Subsequent to the promulgation of the FRDL Act, public debt as a proportion of GDP declined and reached 57.2 percent in FY07 (**Figure 1**). Thereafter due to various issues in the economy and high subsidies, this ratio took a U-turn, reaching 61.3 percent of GDP by FY08. Since then, the public debt to GDP ratio has increased by 2 percentage points each year instead of the reduction envisaged under FRDL. At end-FY10 it stands at 62 percent.

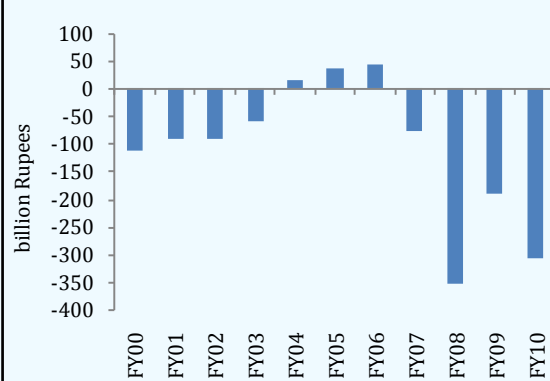
Figure 2 illustrates the revenue balance of the government, taken as the difference between total revenues and current expenditure, and shows that it has generally been negative, with only FY04-06 as the years where it posted a surplus. The situation was particularly exacerbated in FY08, where due to the deteriorating Balance of Payment position, Pakistan had to resort to the standby arrangement (SBA) with the IMF for budgetary and balance of payments support. The IMF SBA lays down specific quantitative criteria in the form of a floor on net foreign assets (NFA) of the banking system and a ceiling on SBP's net domestic assets (NDA). It also requires the government to meet quarterly targets for borrowing from the central bank, thus enforcing a discipline on the government to limit its recourse to financing from the banking system.

Figure 1: Public Debt as % of GDP



Source: Ministry of Finance

Figure 2: Revenue Balance



Source: Ministry of Finance

Source: Fiscal Responsibility and Debt Limitation Act (2005). The Gazette of Pakistan, Extra. No. 2966(05).

Box A2: Relationship of Governments with Central Bank: Cross Country Experience

The following table illustrates the legislative structure in place in other economies with regard to government borrowing from the central bank. Almost all the central banks in the selected group, besides having a legislative structure, also have indicative quantitative targets for the amount that can be borrowed from the central bank. Besides Chile, (as mentioned in the table) particularly strong prohibitions exist in Brazil, Peru and Poland where lending to the government is precluded by the constitution.

Mexico	Turkey	Thailand	Indonesia
<ul style="list-style-type: none"> Bank can grant credit to the Federal Government only through the current account the said Govt. holds in the Bank. If the Federal Govt.'s balance in the current account is negative, it cannot exceed 1.5 percent of the Federal Govt. expenses as laid out in the Federal Budget, except in extraordinary circumstances. If the debit balance in the government's account exceeds the above limit, the Bank must (within fifteen business days) proceed to place securities payable by the Govt. in the market in an amount equivalent to balance in excess of limit. The above limit of fifteen days may be extended by the Bank up to three months in order to prevent disruption in the financial market. 	<ul style="list-style-type: none"> The Bank shall be the financial and economic consultative body of the Government and shall render opinion as may be requested by the Government. The Bank shall be represented at financial and trade agreements' negotiations with foreign countries. The Bank shall not grant advances and extend credit to the Treasury and public institutions. 	<ul style="list-style-type: none"> The Bank would accept money on the account of MOF and making payment there from The Bank is also responsible for the execution of government money exchange, remittance and banking business To act as an agent of Government in sale/purchase of gold, silver, sale purchase of securities and shares To collect proceeds whether principal, interest or dividend on securities and shares. To grant unsecured loans and advances to Government for expenditure authorized in the budget up to an amount not exceeding 25% of such expenditure and subject to repayment within the first quarter of following fiscal year. 	<ul style="list-style-type: none"> Government will request opinion of the Bank of Indonesia and/or will also attend meetings of the cabinet which discuss economic, financial banking and other matters relating to the tasks of the Bank. The Bank of Indonesia will provide opinion and consideration to the Government with concern to state budget. The Government will hold consult the Bank and House of Representatives before issuing state debt securities. Bank of Indonesia shall not purchase state debt securities except in secondary market. Bank of Indonesia shall not provide credit to the Government. Any act of the Bank of Indonesia concerning purchase of state debt securities in the primary market or grant of any credit to the Government will be null and void.
South Africa	Chile	Malaysia	Philippines
<ul style="list-style-type: none"> All the gold traded by the Bank for the profit or loss of the Government All the foreign currency assets of the Bank are for the profit or loss of the Government Profit or losses on the forward foreign exchange contract are on the Government account. Total stock of credit to the Government should not exceed paid-up capital and 	<ul style="list-style-type: none"> While taking decisions, Board will keep in mind the general orientation of the government's economic policy Bank may contract internal and foreign credits and take part in any transaction which is compatible with its purposes on behalf of the State. Bank shall have the power to act on behalf of the State in the conversion and renegotiation of the 	<ul style="list-style-type: none"> Based on the recommendation of the Board, the Minister determines the currency, geographic and instruments wise composition of the external reserves Bank may purchase Govt. securities offered for sale to public Bank may grant advances to govt. authorities or corporations in which bank or the 	<ul style="list-style-type: none"> Purchase and sale of government securities under the open market operations must be made to achieve monetary stability The Bank shall represent the Government in dealing, transactions and negotiations with IMF and World Bank. The Bank shall administer securities stabilization fund for the purpose of increasing the liquidity and stablization of the value of govt securities. Before raising any credit abroad, the Government

balance in reserve fund plus one-third of Bank's liabilities to the public in South Africa.	<ul style="list-style-type: none"> direct or indirect foreign public debt No public expenditure or credit may be financed either directly or indirectly with loans granted by the Bank 	<ul style="list-style-type: none"> government has equity interest. Total of such advances not to exceed 250% of paid-up capital and general reserve fund Bank may grant temporary advances to the govt. to cover budget deficit subject to limit of 12.5% of estimated receipts as per budget. Such advances must be repaid within three months of close of financial year in which advances have been made. 	<ul style="list-style-type: none"> shall request opinion of the Board in writing with reference to monetary implications of contemplated action. Whenever the govt contemplates borrowing within the country, the prior opinion of the board shall likewise be requested.
Source: Central Bank Websites			