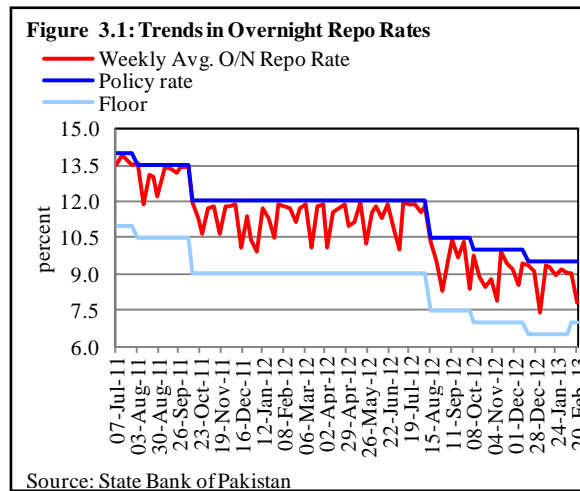


3 Inflation and Monetary Policy

3.1 Overview

An improvement in key macroeconomic indicators – the fall in headline inflation; a surplus in the current account balance; and a net retirement in borrowing from central bank– created some room for SBP to relax its monetary stance.¹ The

policy rate was reduced by a cumulative 250 bps to single digits in three successive monetary policy announcements during the first half of the year.² However, the policy space has withered to some extent, as the economy enters the second half of the year. Cognizant of emerging risks, especially to inflation and in the external sector, SBP decided to keep the policy rate unchanged at 9.5 percent in its monetary policy announcement of February 2013 (Figure 3.1).³



Headline inflation, which had been declining since the beginning of the current fiscal year, reached a low of 6.9 percent in November 2012 (YoY). Accordingly, average inflation for the first half of FY13 fell to 8.3 percent against 10.9 percent in the corresponding period last year. This visible decline was primarily because of the stability in food prices, downward revisions in the price of piped gas and CNG, and softening inflationary expectations.

¹ Investment rate (investment as percent of GDP) has reached a low of 12.5 percent during FY12.

² A 150 bps cut in policy rate was decided in August 2012, which was followed by two more cuts of 50 bps each in October and December.

³ While the upper limit of interest rate corridor has been kept unchanged at 9.5 percent, the lower limit has been increased by 50 bps. As a result, interest rate corridor has narrowed from 300 bps to 250 bps. This will not only reduce the volatility in weighted average overnight rate, but also increase mid rate by 25 bps. For details, please see DMMD Circular No. 02 of 2013 dated February 08, 2013.

In our view however, the declining trend in inflation seems to have bottomed out; YoY headline inflation increased to 7.4 percent in February 2013. This reversal can be explained by the increase in wheat support prices, and the continuous expansion in money supply.⁴

Broad money supply expanded by 8.0 percent during H1-FY13, compared to 5.7 percent during the same period last year. While the growth in money supply is consistent with the reduction in SBP's policy rate, the primary driver was, once again, budgetary borrowing for deficit financing.⁵ The contribution of private sector credit in monetary expansion remained low.

Deficit financing from the banking system grew by 13.6 percent in H1-FY13, against 29.1 percent last year (**Table 3.1**). The lower growth in H1-FY13 can be

Table 3.1: Monetary Aggregates –H1

flows in billion Rs, growth in percent

	Cumulative Flows				Cumulative Growth	
	Oct-Dec (Q2)		Jul-Dec (H1)		Jul-Dec (H1)	
	FY12	FY13	FY12	FY13	FY12	FY13
Broad money (M2)	400.4	558.4	379.4	612.4	5.7	8.0
NFA	-57.2	5.4	-139.9	17.2	-17.9	3.2
SBP	-69.3	-55.6	-122.6	-59.9	-20.0	-15.2
Scheduled banks	12.1	61.0	-17.3	77.1	-10.4	55.8
NDA	457.6	553.0	519.3	595.3	8.8	8.4
SBP	116.9	170.6	237.6	272.3	22.9	18.1
Scheduled banks	340.7	382.4	281.7	323.0	5.8	5.8
of which						
Government borrowing	512.3	319.2	691.9	478.3	22.9	11.2
For budgetary support	571.7	365.6	756.0	518.1	29.1	13.6
SBP	219.2	183.2	117.3	-216.2	9.8	-12.7
Scheduled banks	352.4	182.4	638.7	734.3	45.6	35.1
Commodity operations	-60.8	-47.8	-63.5	-38.8	-16.0	-8.9
Non government sector	-23.9	214.3	-87.3	144.8	-2.5	4.0
Credit to private sector	282.2	189.5	193.5	104.5	6.2	3.1
Credit to PSEs	-306.8	24.8	-281.5	40.3	-72.6	15.7
Other items net	-30.8	19.5	-85.3	-27.9	13.1	3.5

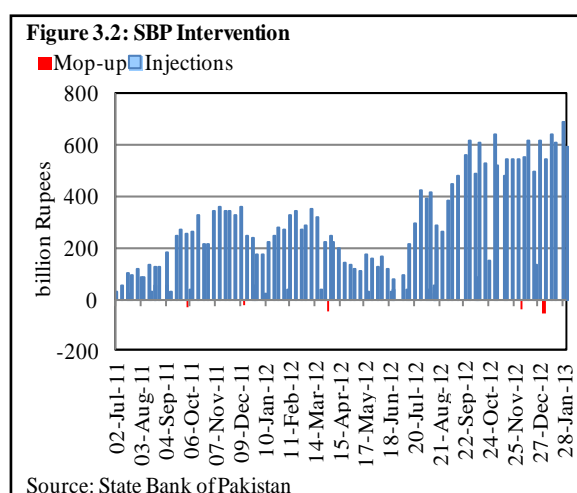
Source: State Bank of Pakistan

⁴ Despite all these developments, average inflation for FY13 is likely to remain within the target of 9.5 percent.

⁵ In absolute terms, broad money supply saw an expansion of Rs 612.4 billion during H1-FY13, while government borrowing for budgetary finance stood at Rs 518.1 billion.

attributed to *one-off events* like the adjustment of circular debt in H1-FY12, and the realization of CSF in H1-FY13. Within the banking system, the government mostly relied on commercial banks for financing, and actually retired a part of its borrowing to the SBP during H1-FY13. The latter may help contain inflationary expectations, but the sharp rise in government borrowing from commercial banks, is not only reducing the supply of funds for the private sector, but also complicating liquidity management.⁶

In addition to government borrowing, SBP intervention in the foreign exchange market and debt servicing for external loans (other than the IMF), also absorbed Rupee liquidity from the market. In this situation, SBP injected substantial liquidity into the system to ensure smooth functioning of the money market. As shown in **Figure 3.2**, by end of H1-FY13, the volume of OMOs has exceeded Rs 600.0 billion.



The provision of adequate market liquidity was also necessary to ensure that cuts in the policy rate, lowered the cost of borrowing for the private sector. As a result, following the cuts in the discount rate, the weighted average lending rate (on fresh loans) witnessed a decline of 206 bps during H1-FY13 to 11.1 percent by end December 2012. There are some indications that credit to the private sector is responding to the decline in borrowing costs. Specifically, loans to private sector businesses grew by Rs 146.5 billion during H1-FY13, compared to Rs 86.1 billion in H1-FY12.⁷ Simultaneously, consumer financing also expanded by Rs 6.0 billion during H1-FY13, after a long period of net contractions.

⁶ Budgetary borrowing during H1-FY13 impacted market liquidity in two ways. First, the amount of budgetary borrowing from commercial banks (Rs 734.3 billion) was higher than the increase in bank deposits (Rs 450.1 billion) during H1-FY13; however liquidity constraints eased in Q2-FY13, when banks mobilized more deposits and the government restricted itself to rolling over its maturing debt. Second, the net retirement to SBP by borrowing from commercial banks effectively absorbs liquidity from the market – once again this trend reversed in Q2-FY13, when the government started borrowing from SBP.

⁷ In sharp contrast to this, net credit to private sector witnessed an expansion of Rs 104.5 billion during H1-FY13 compared to 193.5 billion in H1-FY12. This slowdown was primarily attributed to

3.2 Developments in Monetary Aggregates

Broad money supply (M2) expanded by Rs 612.4 billion during the first half of FY13, compared to Rs 379.4 billion in H1-FY12 (**Table 3.1**). Quarterly changes in M2, indicate that monetary expansion was concentrated in the *second* quarter of the year, and was largely driven by: (1) government borrowing from the central bank; (2) an increase in loans to the private sector, especially for working capital and fixed investments; and (3) a rise in commercial bank assets held abroad.

3.2.1 Net Foreign Assets (NFA) of the Banking System

Despite the weak balance of payments position of the country, the banking system's NFA grew by Rs 17.2 billion during H1-FY13, in sharp contrast to a net contraction of Rs 139.9 billion in H1-FY12 (**Table 3.1**). This year's expansion was driven entirely by commercial banks: more specifically, from the growth in worker remittances; increased portfolio investment; and the net retirement of foreign currency (FE-25) loans.

In contrast to commercial banks, the net contraction in the NFA of SBP reflects pressure on its foreign exchange reserves. Specifically, SBP's liquid FX reserves saw a decline of US\$ 1.8 billion during H1-FY13, despite the realization of Coalition Support Funds in August and December 2012.⁸ SBP interventions in the forex markets; some institutional repayments (other than the IMF), and weak financial inflows, led to the contraction in SBP's NFA during H1-FY13.

3.2.2 Government Borrowing for Budgetary Finance

The fiscal authorities borrowed Rs 518.1 billion from the banking system during H1-FY13, compared to Rs 756.0 billion in H1-FY12. Two factors mainly explain the decrease in borrowing: firstly, government borrowing in H1-FY12 included Rs 391.0 billion of the power sector circular debt and procurement agencies' loans, which were taken on to the government's books; and, secondly, the inflow of US\$ 1.8 billion under CSF in H1-FY13 helped contain the overall fiscal deficit to Rs 624.7 billion.⁹

Within the banking system, the government relied heavily on commercial banks and borrowed Rs 734.3 billion during the first half of FY13 (**Figure 3.3**). Quarterly data indicate that most of this borrowing took place in Q1-FY13. In the

a net contraction of Rs 78.3 billion in credit to NBFCs during H1-FY13 against an expansion of Rs 24.3 billion in H1-FY12.

⁸ The logistic support funds of US \$ 1.12 billion and US \$0.69 billion received in August and December 2012 respectively.

⁹ It is important note that the fiscal authorities have received defense receipts (including CSF) of Rs 176.8 billion during H1-FY13 against the annual target of Rs 150.6 billion.

second quarter, the government primarily focused on rolling over the maturing debt (**Table 3.2**), which allowed banks to accommodate seasonal private sector credit requirements.

Simultaneously, the government retired Rs 216.2 billion to SBP during H1-FY13. The entire retirement was concentrated in Q1-FY13, while the government actually borrowed Rs 183.2 billion (in net terms from SBP) in Q2-FY13.

Credit to Public Sector Enterprises (PSEs)

Credit to PSEs rose by Rs 40.3 billion in H1-FY13, compared with a substantial retirement of Rs 281.5 billion in H1-FY12.

As discussed earlier, the retirement last year was due to the shifting of PSEs’ debt on to the government.¹⁰ This year, the expansion was largely driven by: (1) a bailout package for the Pakistan Steel Mills Limited; (2) lending to power sector holding company; and (3) borrowing by Pakistan International Airline Company to repay its long-term loans.

Commodity Financing

Loans for commodity operations recorded a net retirement of Rs 38.8 billion during H1-FY13, compared to Rs 63.5 billion in the corresponding period last year.¹¹ The reduction in net retirement is mainly attributed to Trading Corporation

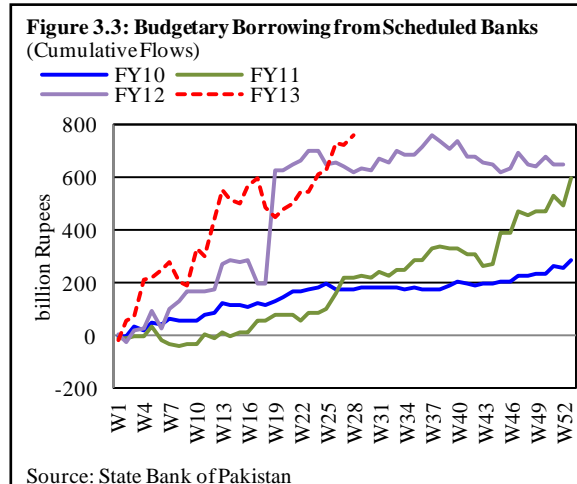


Table 3.2: Government Borrowing from Commercial Banks

billion Rs.	Q1-FY12	Q2-FY12	Q1-FY13	Q2-FY13
PIBs	66.4	36.4	130.5	62.9
SUKUK	70.3	47.0
T-bills (net of maturity)	255.8	-96.5	276.4	-64.0

Source: State Bank of Pakistan

¹⁰ Adjusting for one-off settlement of Rs 312.0 billion reveals that the loans to PSEs indicate an increase of Rs 30.5 billion during H1-FY12.

¹¹ In November 2011, the government released Rs 78.0 billion on account of accumulated subsidies and receivables to two of the federal procurement agencies (PASSCO and TCP). Adjusting for this settlement indicate that loans for commodity operations register an increase of Rs 14.4 billion during H1-FY12.

of Pakistan's (TCP) borrowing needs for the import of fertilizer in FY13.¹² On the other hand, outstanding loans to wheat procurement agencies fell, as the Punjab Food Department aggressively offloaded its wheat stocks in October and onwards (**Table 3.3**).¹³

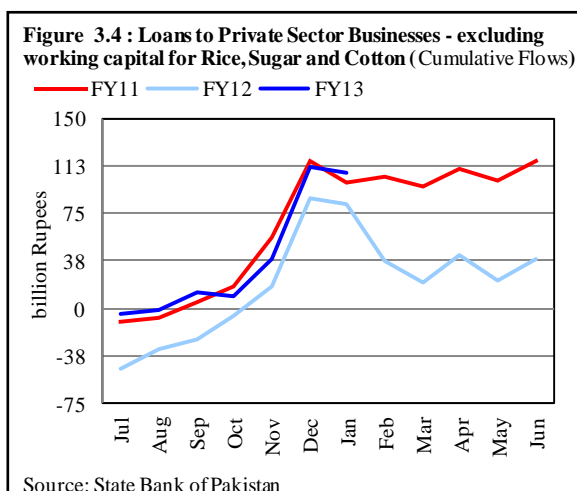
Table 3.3: Quarterly Flows in Commodity Financing Loans
billion Rs.

	FY11		FY12		FY13	
	Q1	Q2	Q1	Q2	Q1	Q2
All commodities	-26.0	-23.9	-2.8	-60.8	9.0	-47.8
Wheat	-22.4	-35.9	-7.4	-24.0	-8.5	-57.3
Sugar	-3.2	16.1	-3.8	-16.7	8.4	-3.2
Fertilizer	-0.1	0.4	9.2	-8.7	9.1	13.2

Source: State Bank of Pakistan

3.3 Loans to Private Sector

With the pickup in credit demand from November 2012 onwards, the cumulative growth in lending to private sector businesses for H1-FY13 increased to 6.0 percent from 3.5 percent in the corresponding period last year. Apart from the usual seasonal demand for the procurement of rice, sugar and cotton,¹⁴ loans to other sectors also gathered pace during H1-FY13 (**Figure 3.4**).



From the supply-side, banks were able to meet the increased credit demand of the private sector due to better liquidity conditions. This was because of the strong growth in bank deposits;¹⁵ greater reliance on SBP financing during Q2-FY13 augmented liquidity in the banking system; and stepped up OMOs.

¹² During H1-FY13, TCP imported 0.3 million tons of urea from international markets.

¹³ The Punjab Food Department offloaded around 1.5 million tons of wheat stocks in the market during second quarter of FY13, against 0.9 million tons in same period last year.

¹⁴ Seasonal financing refers to the working capital loans for the procurement of inputs in sugar, textile and rice processing industries, which usually starts in September/October of every year.

¹⁵ Banks' deposits grew by Rs 478.1 billion in Q2-FY13, while government borrowing increased by Rs 182.4 billion over the same period, freeing up liquidity. This was because the government focused on rolling over maturing debt in the second quarter of the year.

All three categories of private sector loans – working capital, fixed investments and trade financing – expanded during H1-FY13 (**Table 3.4**). Working capital loans gathered momentum from October 2012 onwards, with seasonal demand from textile, rice and sugar processing industries (**Figure 3.5 and 3.6**).

Table 3.4: Credit Flows – H1

billion Rupees

	Overall Loans		Working Capital		Fixed Investment		Trade Financing	
	FY12	FY13	FY12	FY13	FY12	FY13	FY12	FY13
Business Sector Loans	86.1	146.5	99.5	108.7	-8.5	23.7	-5.1	14.1
Agriculture	8.9	12.8	9.2	10.4	-0.6	1.8	0.3	0.5
Manufacturing	53.3	94.0	43.1	70.8	4.6	12.1	5.5	11.0
Food and beverages	-18.2	3.7	-22.6	-11.7	-1.6	9.0	5.9	6.4
Dairy products	-2.6	4.7	-2.4	0.5	-0.5	3.7	0.3	0.6
Sugar	-40.5	-16.8	-40.2	-23.8	-1.3	4.1	1.0	2.9
Rice processing	15.2	23.7	12.1	17.6	0.1	0.1	3.0	6.0
Textiles	30.8	65.2	35	55.6	1.7	3.9	-5.9	5.7
Spinning	21.2	39.4	23.9	35.7	-0.5	-1.2	-2.2	5.0
Weaving	1.4	6.2	-1.3	3.9	2.6	1.1	0.0	1.2
Finishing	5.7	10.9	6.2	8.3	-0.3	4.2	-0.2	-1.6
Made-up textiles	-1.0	8.3	0.4	4.8	0.8	0.4	-2.3	3.2
Fertilizers	2.6	-4.9	5.5	0.9	-2.4	-2.8	-0.4	-3.0
Ship breaking	2.2	5.1	-0.3	2.7	0.0	0.0	2.5	2.4
Electricity gas and water supply	29.8	9.6	35.4	5.4	-2.8	3.6	-2.8	0.6
Production of electricity	30.5	8.8	32.5	5.3	0.8	2.9	-2.9	0.7
Commerce and trade	1.6	12.4	5.0	9.3	-0.3	3.5	-3.1	-0.4
Real Estate, renting and	-2.7	4.0	4.4	-1.8	0.6	4.9	-7.7	1.0
Other private business	3.1	9.0	3.7	10.8	-0.6	-1.3	0.0	-0.6

Source: State Bank of Pakistan

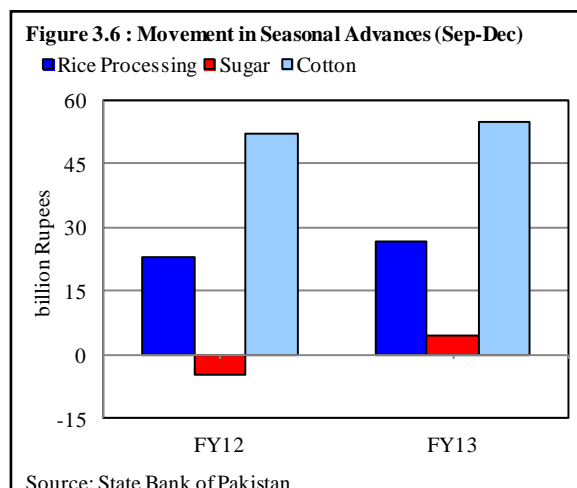
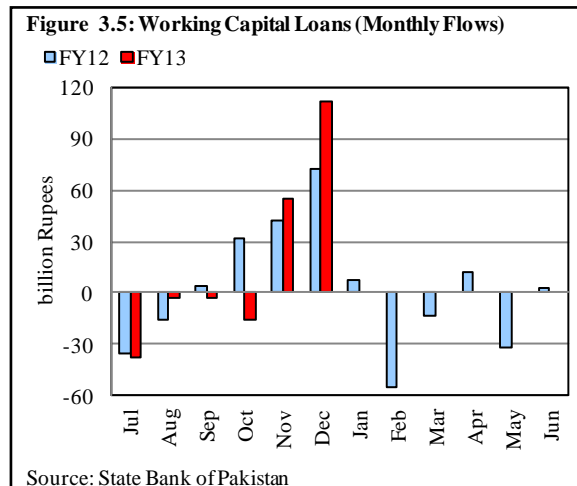
Although there was an expansion in credit supply to all components of the textile value chain, the increase in working capital is not entirely due to the seasonal demand for cotton procurement. The average price of cotton in both domestic and international markets, was lower in H1-FY13 compared to the corresponding period last year;¹⁶ implying that seasonal credit demand should have fallen as

¹⁶ In the international market, the average price of cotton during H1-FY13 was at 73.3 cents (US) per lbs as compared to 100.4 cents per lbs in FY12. Similarly, the average domestic price of cotton was Rs 5,898.3 per 37.32 Kg in H1-FY13 compared to Rs 6,066.9 per 37.32 Kg during H1-FY12.

well.¹⁷ However, anecdotal evidence suggests that a part of the working capital loans was used to overcome the industry's exposure to energy shortages.

Meanwhile, credit demand from the sugar sector picked up with the start of the crushing season. Although the overall number indicates a net retirement during H1-FY13, it is lower compared to the last year.¹⁸ As a part of the crushing season, loans to sugar processing mills are expected to peak during the third quarter of the year.

Concurrently, working capital loans to agriculture, ship breaking, and commerce and trade, also picked up during the first half of the year. In addition to the increase in working capital loans, fixed investment loans also expanded by Rs 23.7 billion during H1-FY13 against a net contraction of Rs 8.5 billion in H1-FY12. This renewed interest in long-term loans (i.e. loans with a maturity of more than a year) is encouraging, and seems to be a response to the rate cuts during the first half of the year (Figure 3.7). The expansion in term lending is broad-based, since a number of sectors, including manufacturing, commerce & trade, and real estate, have availed fixed investment loans. Within manufacturing,



¹⁷ According to Pakistan Cotton Ginners' Association data, 9.9 million cotton bales were sold in the market during H1-FY13, which were lower than 10.3 million bales for H1-FY12 (www.pcgga.org).

¹⁸ In the absence of fresh borrowing, net retirement should have been higher in H1-FY13 compared to H1-FY12.

food-related industries have borrowed to enhance their production capacity and also to strengthen their supply chains.¹⁹

Similar to the trend in working capital and fixed investment loans, trade financing also expanded by Rs 14.1 billion during H1-FY13 against a net contraction of Rs 5.1 billion in H1-FY12 (**Table 3.5**).

Composition of trade financing indicates that the increase was entirely driven by export financing, as loans for import financing witnessed a net contraction in H1-FY13. Moreover, within export financing, the expansion was concentrated in EFS loans. In fact, a reduction of 150 bps in EFS rate, and increased uncertainty about the effective cost of borrowing in foreign currency (FE-25 loans), has made EFS loans more attractive (**Figure 3.8**). As a result, EFS loans rose by Rs 21.1 billion during H1-FY13.

Finally, consumer loans registered a modest increase in H1-FY13, for the first time in five years. The expansion is

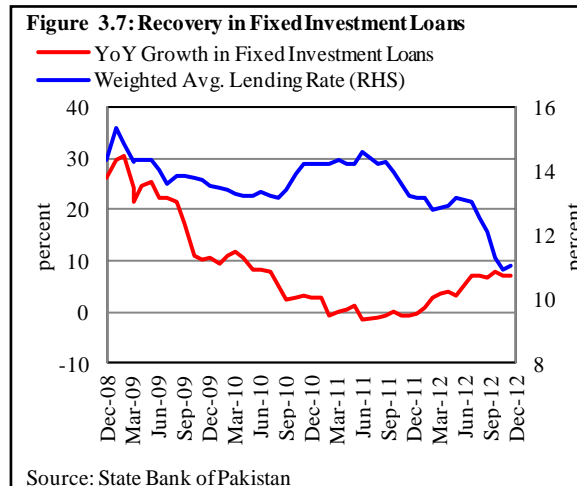
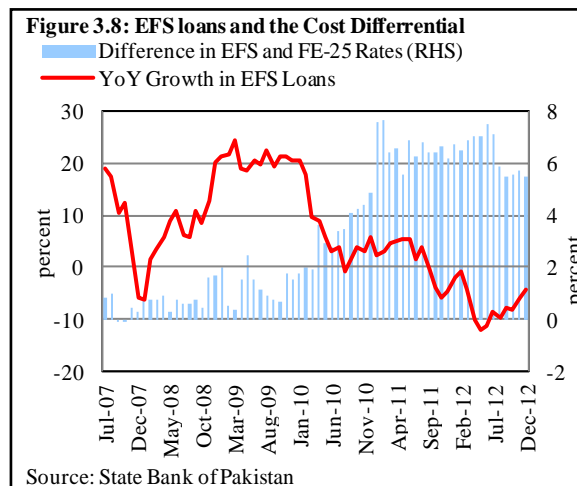


Table 3.5: Flows of Advances under Trade Finance- H1
billion Rs.

	FY12	FY13
EFS	6.3	21.1
Other than EFS	5.1	-0.02
Import financing	-16.4	-7.0
Overall	-5.1	14.1

Source: State Bank of Pakistan



¹⁹ For example, a major conglomerate utilized long-term loans to increase the production capacity of its dried milk plant. Similarly, some sugar mills also borrowed to upgrade their own power generation capacities.

evident in personal loans, credit cards and auto loans (Figure 3.9). The disbursement of personal loans increased by Rs 5.9 billion in H1-FY13, mainly after one public sector bank doubled the limit of its advance salary loan scheme, from Rs 0.5 million to Rs 1.0 million in September 2012.²⁰

3.4 Inflation

Headline inflation continued to fall in Q2-FY13, declining to an average of 7.5 percent for the quarter (Figure 3.10). This is a considerable decrease from Q2-FY12, when inflation for the quarter was 10.3 percent. Inflation for the month of November was recorded at 6.9 percent – the lowest since August 2007.

A part of the fall in inflation in November can be attributed to the decrease in CNG prices, following a Supreme Court order that disputed the then mechanism for setting CNG prices. Nevertheless, non-food non-energy (NFNE) inflation also declined to single digits in November, marking the first time in 15 months that NFNE inflation has fallen below 10 percent.

The general decline in inflation during H1-FY13, and indeed over the past 24 months, can be attributed to the decrease in administered prices (i.e. prices set by the government); the stability in global food and oil prices; and the relative stability in the Rupee-Dollar parity up until recent months. **Box 3.1** discusses the

Figure 3.9: Flows in Different Categories of Consumer Loans (Jul-Dec)

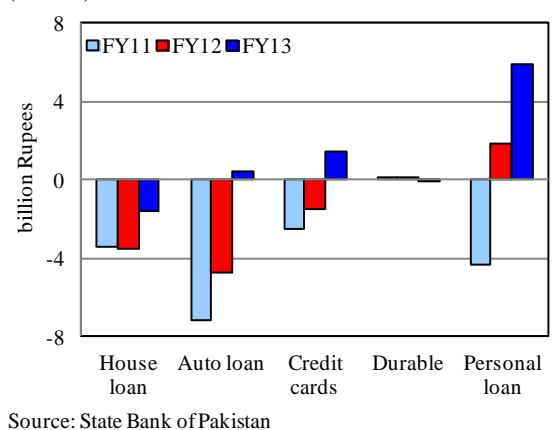
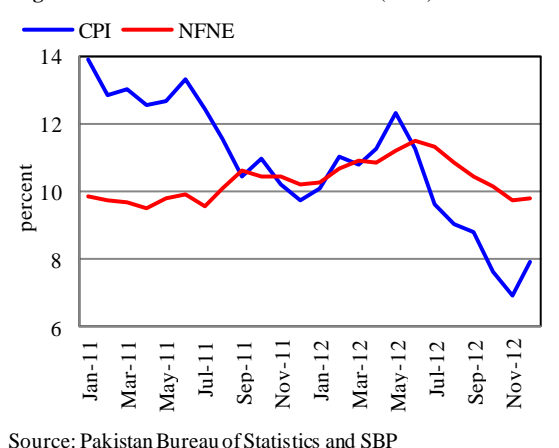


Figure 3.10: Headline and core inflation (YoY)



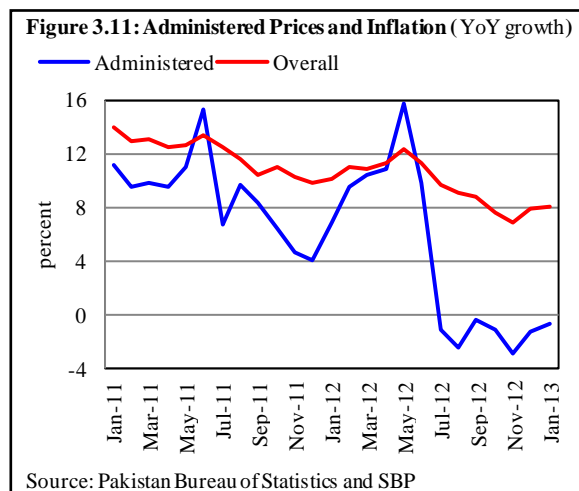
²⁰ Adjusting the loan of Rs 8.0 billion made by this large public sector bank, the personal loan category showed an expansion of only Rs 0.8 billion during last two months of H1-FY13.

decline in inflation over the last two years in some detail, emphasizing the role of these factors on the level and trend of inflation in the country.

The role of administered prices

The *First Quarterly Report FY13* discussed the impact of one of these factors – administered prices. The cut in the price of piped gas in July 2012, which caused a sharp fall in inflation in the month, is an example of the impact administered prices can have (**Figure 3.11**). In general, the prices of these commodities, which account for roughly 12.2

percent of the CPI basket, have been decreased or held stable in recent months, pulling headline inflation down with it. As **Figure 3.1.9** in **Box 3.1** illustrates, changes in administered prices eventually also impact the prices of other commodities in the basket. A plausible explanation for this is that key commodities like wheat, sugar, petrol, and natural gas, act as anchors for people’s inflationary expectations.



Global commodity prices dampening domestic inflation

The government has been able to keep these prices stable because global prices have not been volatile. An example is the price of oil, which has hovered around US\$110 per barrel – almost unchanged from the same period last year (**Figure 3.12**). That has allowed electricity tariffs to remain unchanged since May 2012, and POL prices to remain stable.²¹

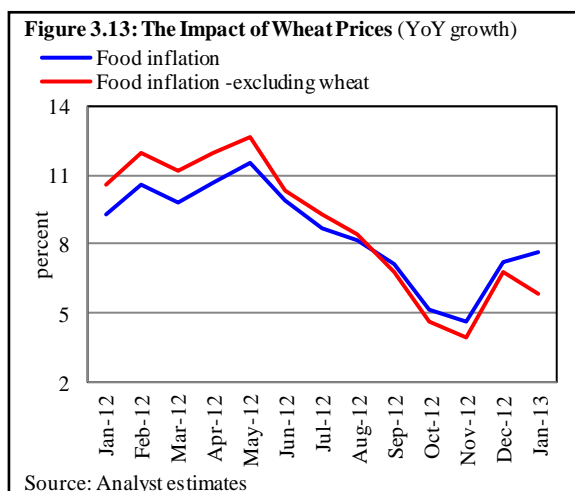
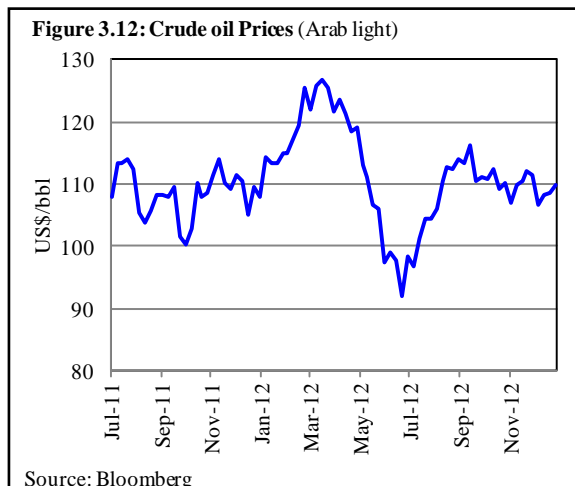
The only exception to this trend has been wheat prices, which have increased in the global market, and were reflected in higher wheat support prices in November 2012. In fact, our analysis indicates a strong causal link between global prices and

²¹ We believe that international oil prices are unlikely to increase sharply in the future. The US Energy Information Administration has forecasted international oil prices to remain stable over the next three years. Specifically it forecasts a slight decrease in WTI crude oil prices from US\$94.12/bbl in 2012 to US\$92.81/bbl in 2013, and a decrease in Brent crude oil prices from \$111.65/bbl in 2012 to \$109.33/bbl in 2013. In effect, domestic energy prices are expected to remain relatively stable, and continue to act as a drag on inflation.

retail food prices in the country.²² Given that global food prices have remained subdued over the past few years, and in the absence of any significant supply shocks to the production of perishable food items (e.g. floods), domestic food inflation has subsided.

Risks from wheat prices, and the external sector

The rising retail price of wheat, and its link with food inflation, (Figure 3.13) is one of the risks to inflation in the short-run. The other major risk is the recent depreciation of the Rupee. With almost 25 percent of manufacturing costs directly impacted by the exchange rate,²³ the depreciation of the Rupee is a significant factor for cost-push inflation. As we show in Figure 3.1.8 in Box 3.1, the link between changes in the Rupee-Dollar parity seems more important than changes in the nominal effective exchange rate, when it comes to explaining non-food inflation. This makes intuitive sense, as the Rupee-Dollar parity is closely monitored by the average Pakistani, and perhaps anchors how domestic producers and traders set their prices.



Nevertheless, we expect average inflation for the year to remain between 8-9 percent, since the impact of the exchange rate may take time to filter down to retail

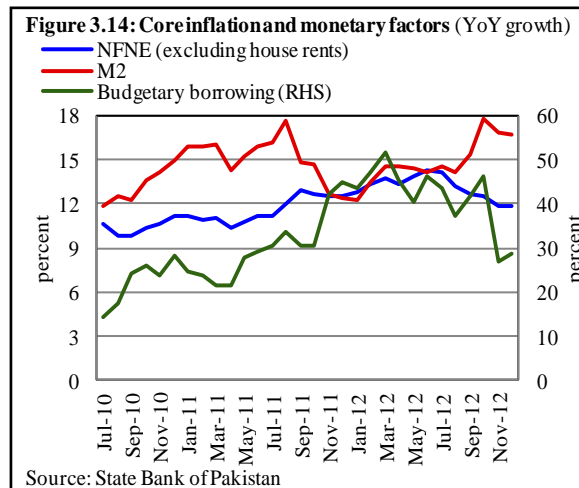
²² Hanif, M Nadim. "A Note on Food Inflation in Pakistan." Pakistan Economic and Social Review. 50 (2012): 2. Print

²³ Choudhary, M. Ali, M. Nadim Hanif, Sajawal Khan, Muhammad Rehman. "Procyclical Monetary Policy and Governance." SBP Research Bulletin. 8 (2012): n. page. Print

prices;²⁴ furthermore, domestic energy prices are expected to remain relatively stable for the rest of FY13.

Budgetary borrowing is a growing concern

As now and beyond FY13, we remain concerned about the impact of budgetary borrowing on inflation. Our analysis has revealed a very strong correlation between core inflation (excluding house rents) and the increase in budgetary borrowing from the banking system (Figure 3.14). Interestingly, the relationship between M2 growth and this measure of inflation is less pronounced in the short-run at least.



Two important points need to be made here: (1) while government borrowing has a direct impact on the growth of money supply, it is not the sole determinant behind M2 growth; and (2) to get a better handle on demand factors and what could be underpinning inflationary expectations, one must focus on core inflation.

Under normal circumstances, a country’s money supply will increase as the private sector borrows or if the country’s FX reserves rise. In looking at Pakistan, we have found that the expansionary impact of government borrowing has been neutralized by weak private sector borrowing and the drawdown of the country’s reserves – yet inflationary expectations have remained strong. In effect, it is not the growth in money supply per se that determines the inflationary outlook, but the quantum of government borrowing, especially from the central bank. As discussed in Box 3.1, we find that the link between broad money growth and core inflation is not as strong as the link between budgetary borrowing (from the banking system) and core inflation.

In closing, we believe the role of inflationary expectations, which are strongly influenced by the quantum and consistency of government borrowing, is the likely

²⁴ As we noted in our *Annual Report for FY12*, there is a significant correlation between non-food inflation and exchange rate depreciation, with a three month lag for the latter.

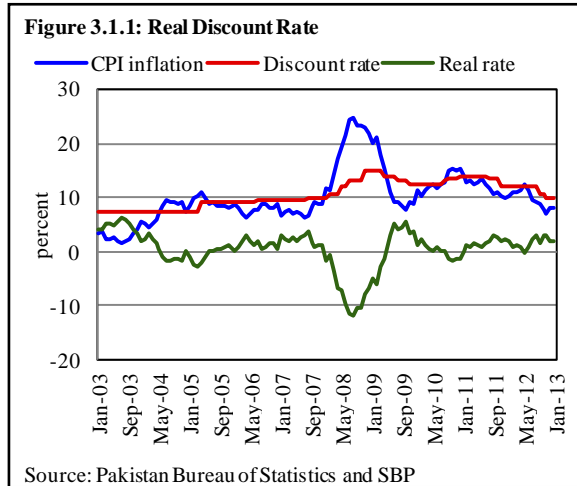
cause for the strong correlation here. Therefore, any *sustained* decrease in inflation will need to be accompanied by a fall in government borrowing from the banking system.

Box 3.1: Why has inflation come down over the past two years?

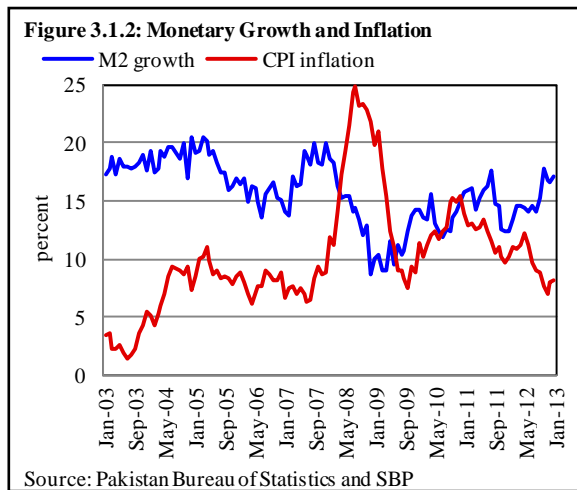
The declining trend in inflation over the past two years cannot be attributed to a single factor. Rather, the recent decline may be traced to a combination of favorable circumstances and policy decisions, which we will discuss in this section. It's necessary to take a step back and evaluate the historical and structural linkages between these factors and inflation.

Monetary Policy and Inflation:

While theory dictates a strong causal link between the growth in monetary supply and headline inflation, the *strength* of this link has been a matter of some debate in Pakistan. For its part, the State Bank has managed its policy rate carefully, to ensure that real rates (i.e. adjusted for inflation) remained positive for the last two years in order to rein in inflation (**Figure 3.1.1**).



The ultimate objective of using the benchmark interest rate to control inflation is to suppress domestic demand by limiting monetary expansion. Despite an insatiable government appetite for funds, SBP has been able to control monetary expansion at an average of 15 percent over the past two years, which is *slightly above* its 5-year (2008 –2012) average of 14 percent. In that sense, SBP's monetary management has been prudent, if not cautious. However, inflation has remained above its 10-year average over the past two years – a fact that merits an explanation (**Figure 3.1.2**)

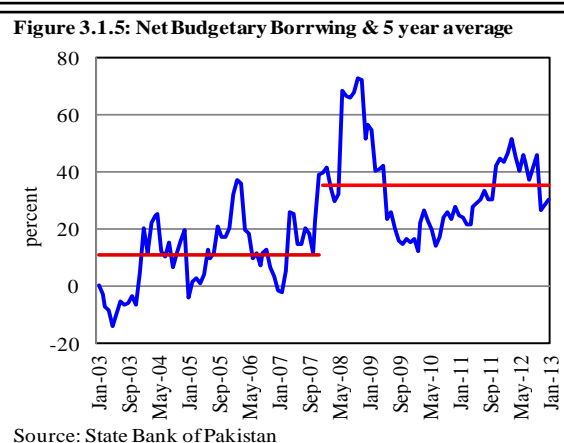
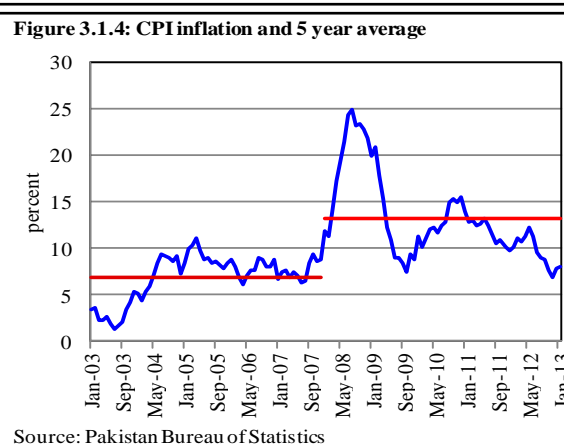
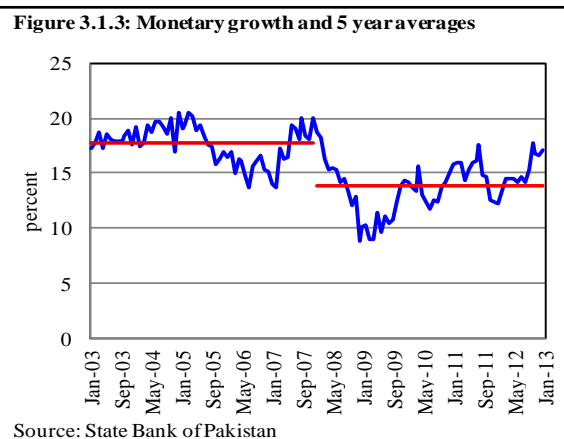


Splitting up the last 10 years (January 2003 – January 2013) into two parts of five years each is informative. While average inflation was relatively low for the first five years (at

roughly 7 percent), monetary expansion (M2 growth) was at an average of 18 percent. In the next five years, average inflation was at roughly 13 percent, but monetary expansion *slowed down* to an average of 14 percent (Figures 3.1.3 and 3.1.4). One possible explanation is that monetary expansion has a very long lag, and only impacts headline inflation in the medium-to-long run. However, as we will discuss later, since price setting in

Pakistan is quite frequent, the monetary overhang should filter down to inflation rather quickly. In terms of the apparent quandary, the period 2003 – 2007, posted strong M2 growth because of the rapid increase in FX reserves and strong private sector borrowing – this was also the period when the fiscal gap was relatively contained. During the latter 5-year period, reserves had started falling and private sector demand for credit started contracting. Furthermore, in the last two years, the government fiscal deficit had increased quite sharply.

As shown in Figure 3.1.5, budgetary borrowing from the banking system grew by an average of 10 percent in the first five years (2003-2007), but then grew by an average of 35 percent in the next five years. This growth in government borrowing has a strong correlation with NFNE inflation (excluding house rents);²⁵ in fact, the correlation



²⁵ No such links exists with growth in M2.

coefficient is 0.93 if both series are smoothed-out (using a three-month moving average), and if the growth in net budgetary borrowing is lagged by three months (**Figure 3.1.6**).

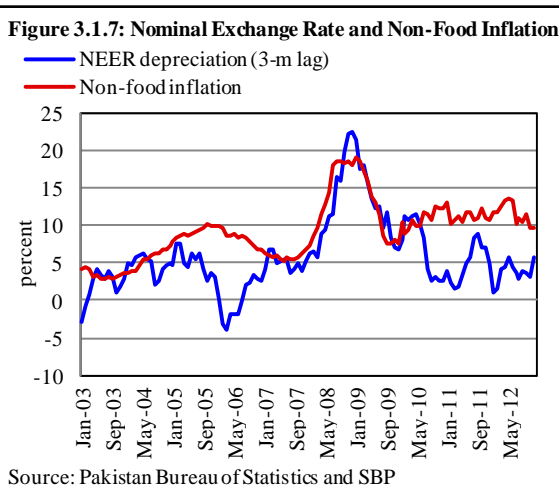
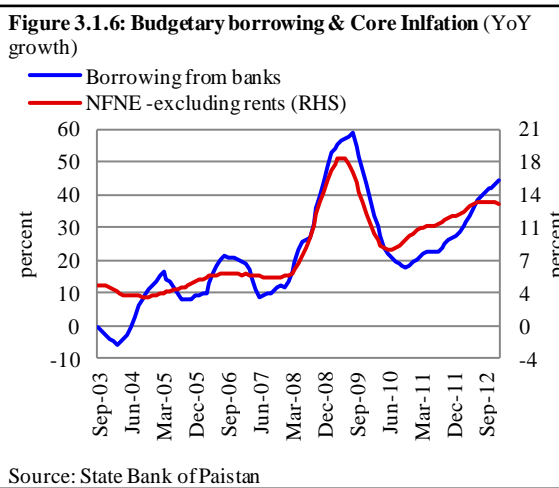
We believe this result is due to three factors: (1) the anchoring of inflationary expectations to government borrowing for deficit financing; (2) the channeling of government spending to boost consumption (as noted in the *Annual Report FY12*);²⁶ and (3) the fact that prices are revised

roughly every quarter by most firms in the country, which is far more frequent compared to other countries. In terms of the latter, this shortens the impact of interest rate signals, as retail prices quickly adjust to policy changes.

As we discussed earlier, the link between government borrowing and inflation has become even more pronounced over the past two years.²⁷ This only underscores the importance of containing fiscal borrowing from the banking system in order to achieve a sustained decline in inflation. *The source of monetary expansion seems to have a stronger link with inflation, than monetary expansion per se.*

The link between exchange rate and inflation

The structure of the economy determines the link between the exchange rate and inflation. With energy prices (POL and electricity) closely linked to the exchange rate, roughly a quarter of manufacturing costs have a direct exchange rate pass-through (imported energy and raw

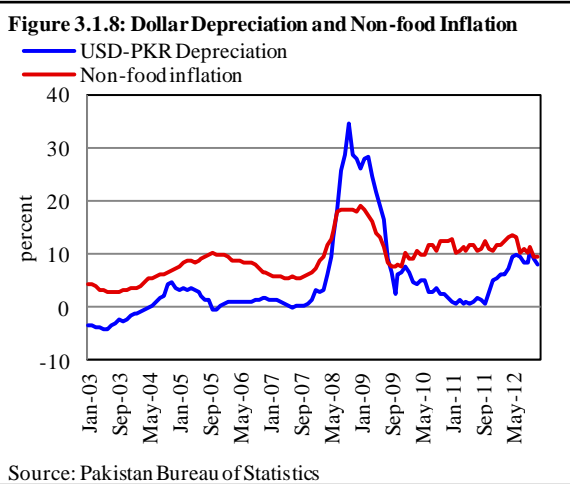


²⁶ Government spending for consumption creates immediate demand for goods and services, whereas any spending for investment activities will affect demand with a greater lag.

²⁷ It is important to repeat that it is not the size of the fiscal gap per se, but the financing mix that influence inflationary expectations. The worst option in terms of feeding such expectations, is the volume of central bank financing.

materials).²⁸ Since Pakistan's manufacturing sector revisits its pricing very frequently, it is unsurprising that the 10-year correlation coefficient between nominal effective exchange rate depreciation (with a 3 month lag) and non-food inflation, is roughly 0.62 (**Figure 3.1.7**).

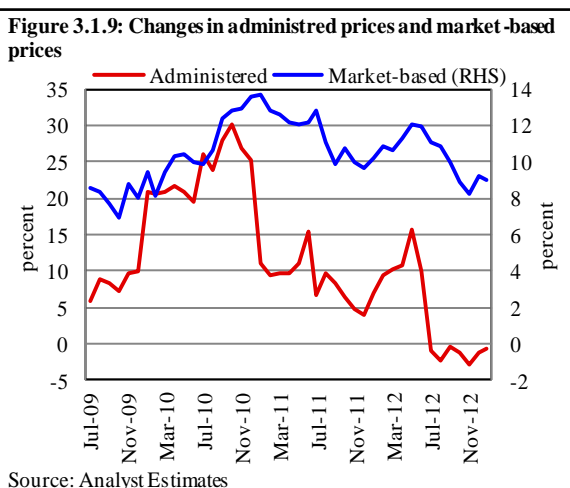
The relationship between the exchange rate (more specifically the Rupee-Dollar parity) and inflation is more nuanced than just through "imported" inflation. The 10-year correlation coefficient between the depreciation of the Rupee-Dollar parity and non-food inflation, is very high at 0.83 (**Figure 3.1.8**). The *direct impact* indicates that inflationary expectations must be playing a role, and this is potentially anchored to the Rupee-Dollar parity.



The role of administered prices

A simple way to cushion the exchange rate impact on retail prices is to control the retail prices directly. The commodities whose prices are controlled (or "administered") by the government, constitute 12.2 percent of the CPI. The most important of these are wheat; sugar; electricity; petrol; diesel; CNG; LPG; and piped gas. These commodities are a critical part of the CPI, not just because of their direct contribution (which we detailed earlier), but also because they are used as inputs in manufacturing, particularly in processed food items. Also, the impact they have on people's expectations (via the media coverage these prices get), cannot be denied.

Therefore, it is not surprising to



²⁸ Choudhary, M. Ali, Saima Naeem, Abdul Faheem, Nadeem Hanif, Farooq Pasha. "Formal Sector Price Discoveries: Preliminary Results from a Developing Country." SBP Working Paper Series. 42. (2011). Print

note a high degree of correlation between the change in administered prices (with a 3-month lag) and the change in other market-based prices (**Figure 3.1.9**).²⁹ The lag period is also consistent with our earlier findings, which indicate that pricing decisions are revisited every quarter.

Global commodity prices

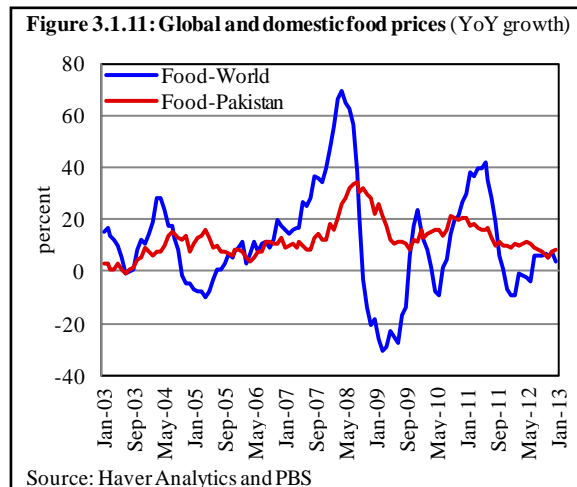
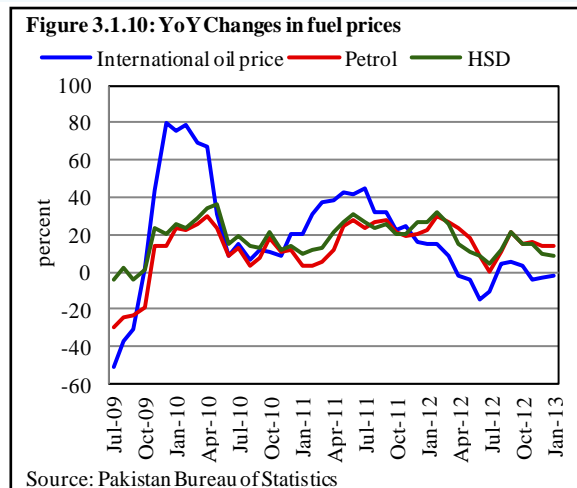
A final consideration for understanding domestic inflation is the state of global commodity markets, which are beyond the government’s control. As a small open economy, the prices of most food and energy items are strongly linked with global prices.

Energy prices, in particular, have moved almost in sync with international oil prices since FY09, when domestic POL prices were explicitly linked with international prices (**Figure 3.1.10**). Similarly, domestic food prices are strongly linked with international food prices, albeit with a lag of 4 - 5 months (**Figure 3.1.11**). This is consistent with our findings in the *First Quarterly Report FY13* that changes in international wheat prices cause a change in domestic wheat support prices, which is the most important food price benchmark set by the government.

Putting it all together:

So what can explain the fall in inflation over the past 24 months?

Firstly, international commodity prices have remained stable, with both global food and energy prices hovering within a well contained band. This has allowed for some measure of stability in domestic food and energy prices, which has contributed to the decline in food and energy inflation over the past two years.



²⁹ Correlation coefficient during this period was roughly 0.62.

Secondly, the inflation in administered items has decreased sharply during this period, with the government reducing the prices of natural gas and CNG, and not revising upwards the base electricity tariffs since May 2012, while keeping POL prices relatively stable.

Together, these two factors have eased headline inflation, with core inflation gradually starting to recede. With the growth in net budgetary borrowing from the banking system also declining slightly,³⁰ and the Rupee-Dollar parity remaining quite stable until recently, inflation has retreated slowly over the past two years.

However, a few developments in recent months have raised concerns for the country's inflation outlook. Firstly, there is the risk that budgetary borrowing from the banking system will increase in the remaining part of FY13, with the federal government very likely to miss its annual revenue target. Secondly, the Rupee has depreciated against the Dollar and other major currencies in recent months. Finally, the government has raised the support price for wheat.

As we pointed out earlier, the impact of these changes usually takes a quarter to materialize across the basket. Although this implies that average inflation for the year will fall comfortably below the government's target of 9.5 percent, managing inflation may be more challenging in FY14.

A finer point to note at the end of this analysis is the role of inflationary expectations, which have been a recurrent theme in SBP's publications. Quite a few of these observations do not have orthodox theoretical underpinnings as in Neo-Classical economics; instead they imply that inflationary expectations may be the driving factor in Pakistan's economy. We have found the following: (1) the link between the Rupee-Dollar parity and non-food inflation is stronger than the link between the nominal effective exchange rate and inflation; (2) a much stronger correlation between core inflation (excluding house rents) and budgetary borrowing, rather than broad money growth; and (3) the impact of changes in administered prices on the broader basket of commodities, implying that people's expectations about future inflation can be strongly influenced by sustainable changes in administered prices. The fact that most of these relationships were strongest with a three month lag between inflation and the other variables, is also consistent with our survey findings that prices are revised roughly every quarter in Pakistan.

³⁰ Although the growth in net budgetary borrowing from the banking system has declined in recent months, it remains high at 30 percent for January 2013. However, this is a reduction from H1-FY13's average growth of 37 percent.