3 Monetary Policy and Inflation

The Monetary Policy Committee (MPC) raised the policy rate by a cumulative 825 bps during FY23 to 22 percent, amid deteriorating inflation and external account outlooks. A confluence of global and domestic supply shocks and their second round effects, alongside longstanding domestic structural weaknesses, contributed to persistent inflationary pressures and elevated inflation expectations, pushing the average NCPI inflation to multi-decade high in FY23. This was despite a slump in domestic demand due to monetary policy tightening and a range of contractionary measures introduced since FY22, and was visible in narrowing of current account deficit. However, weak external inflows kept the external account under pressure, leading to a large depreciation in PKR. Given inadequate availability of external financing, the government increased its reliance on commercial banks to finance deficit that led to a substantial increase in Net Domestic Assets of the banking system. Contraction in the Net Foreign Assets, nevertheless, partly offset the impact of the expansion in NDA on broad money growth during FY23. On the other hand, private sector credit declined during FY23 amid rising cost of borrowing and slowdown in economic activity. Specifically, the working capital loans posted a noticeable decline, whereas fixed investment also slowed down considerably during the year.

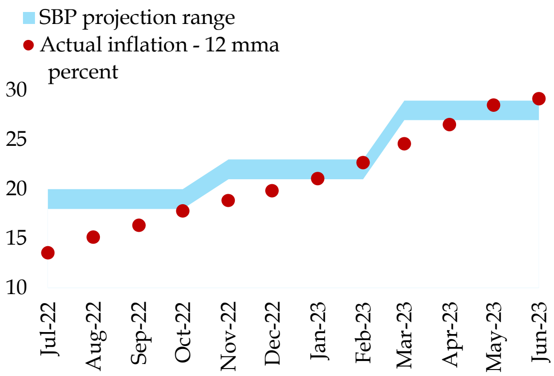
3 Monetary Policy and Inflation

3.1 Policy Review

SBP continued to tighten monetary policy stance amid rising inflation expectations, multi-decade high inflation outcomes and sustained pressures on the external account. During FY23, the SBP's Monetary Policy Committee (MPC) increased the policy rate by a cumulative 825 basis points (bps) to 22 percent. The interaction of sequential domestic and global supply shocks with longstanding structural issues, which amplified input costs and raised inflation expectations, led to intense and persistent inflationary pressures during the year. Thus, the average headline National CPI (NCPI) inflation soared to 29.2 percent in FY23, around the upper end of SBP's revised inflation projection range of 27 – 29 percent (**Figure 3.1**).

The surge in inflation was broad-based with rising food prices having a dominant contribution, followed by Non-Food Non-Energy (NFNE) and energy group. Inflation maintained an uptrend almost throughout FY23, with around 90 percent of the items witnessing double-digit increase in prices in both the rural and urban baskets **(Figure 3.2)**.

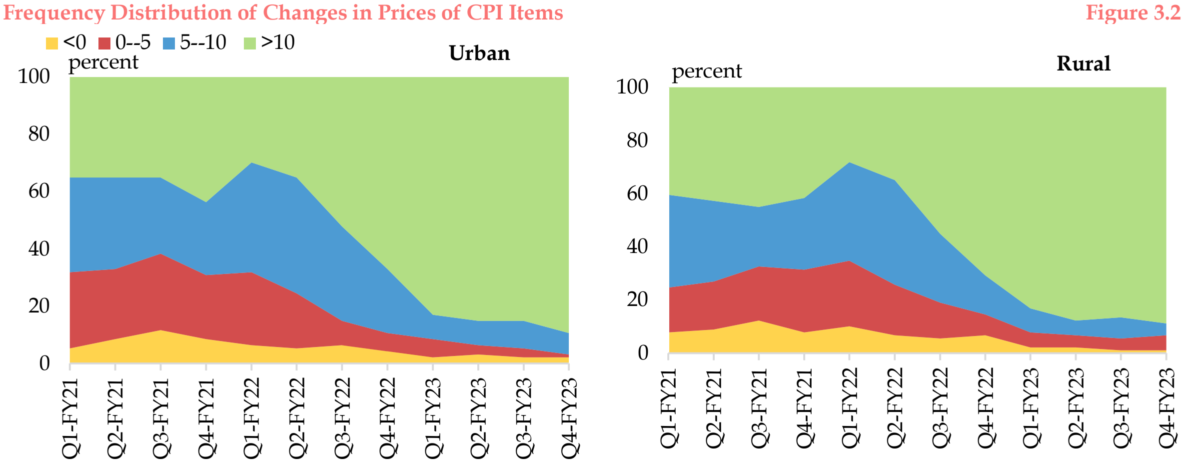
Inflation Projections and Actual Inflation - FY23 **Figure 3.1**



Sources: PBS, SBP projections and calculations, Planning Commission

FY23 began with highly uncertain global economic environment because of the fallout of Russia-Ukraine conflict. In the case of Pakistan, the confluence of global economic uncertainties and domestic challenges further augmented inflationary pressures. A multitude of domestic factors, including flood related domestic food shortages; hike in energy prices; domestic supply constraints amid prioritization of imports; increase in taxation and other levies introduced through the Finance (Supplementary) Act 2023; less than planned

Frequency Distribution of Changes in Prices of CPI Items **Figure 3.2**



Sources: Pakistan Bureau of Statistics, and State Bank of Pakistan calculations fiscal consolidation; and rising domestic uncertainty, contributed to a sustained uptrend in inflation during the year. In addition, uncertain global economic and financial conditions; elevated global commodity prices; stringent external financing conditions; and delay in completion of the 9th review under the IMF's EFF program, kept external accounts under stress, leading to PKR depreciation, which further stoked inflationary pressures (**Figure 3.3**).

These macroeconomic challenges presented significant risks to price and financial stability and medium-term economic growth prospects. While monetary tightening signified slowdown in domestic demand and thus economic activity in the short-term, these concerns were outweighed by risk of inflation expectations

Supply Shocks, FY23 **Figure 3.3**

Months	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
PKR Change (yoy; %)	-27.3	-25.7	-27.1	-22.2	-22.2	-21.2	-24.7	-34.2	-35.9	-35.3	-31.5	-28.7
Global Commodity Prices (yoy; %)	39.2	48.3	28.2	-0.1	4.9	4.1	-5.0	-14.2	-29.8	-25.1	-30.1	22.3
Electricity Tariffs - Annual Rebasing (Rs. per KWh)	3.5	3.5		0.91								
Electricity Tariffs - Quarterly Adjustments (Rs. per KWh)	0.57 from Jun 1 & 1.55 from Jul 1		0.51	1.49 to 3.21				1.49 to 3.21		0.5		
Natural Disaster	Floods in July-September 2022 inundated about one-third of the country, and damaged livestock and crops											
PDL - Avg. of Petrol/Diesel (Rs. per liter)	7.5	15.0	22.5	24.9	31.3	38.3	41.9	45.0	47.5	50.0	50.0	50.0
Tax Related Measures	Finance Act 2022	RD on imports raised						Finance (Supplementary) Act 2023; GST raised from 17 percent to 18 percent				
Import-related restrictions	MoC's ban on 500+ import items in Jul-Aug; SBP's prior approval list extended in July to include machinery & electronics					100 percent CMR extended in Dec; SBP issued prioritization list in Dec						
Gas Prices	Effective Jan 01, 2023, government increased gas price for almost all sectors: for domestic use: from 33 to 112 percent (depending on the slab); for commercial use: ~29 percent											
Inflation (yoy; %)	24.9	27.3	23.2	26.6	23.8	24.5	27.6	31.5	35.4	36.4	38.0	29.4

Sources: SBP, PBS, IMF, NEPRA, MoC, FBR, OGRA becoming entrenched. In a bid to anchor inflation expectations and provide support to PKR, the SBP continued to tighten its monetary policy stance during FY23 in all its reviews with the exception of three occasions, when the MPC decided to keep the policy rate unchanged in August, and October 2022 and on 12th June 2023.

Around the time the MPC met in July 2022, macroeconomic outlook had worsened noticeably. Particularly, unwinding of energy subsidies, and continued growth momentum of domestic demand in conjunction with surge in global commodity prices, pushed the year on year (YoY) inflation substantially to 21.3 percent in June 2022 from 13.8 percent a month earlier. The upsurge in demand, in addition to lingering domestic uncertainty and strengthening of the US$, further accentuated pressures on PKR. In view of deteriorating inflationary situation and external account outlook, the MPC raised the policy rate by 125 bps in July 2022. Besides, to strengthen the monetary policy transmission, the MPC also linked the interest rates on EFS and LTFF loans with the policy rate.

Considering the latest developments, the MPC anticipated strong second round effects emanating from increase in energy prices after removal of power subsidies, and projected the average headline NCPI inflation to remain elevated in the range of 18 – 20 percent during FY23. Accounting for the impact of fiscal consolidation envisaged in the budget and the lagged impact of monetary tightening since September 2021, real GDP growth was projected in the range of 3 - 4 percent in FY23. The committee also projected the CAD to fall to 3 percent of GDP in FY23, based on the assumptions of falling imports, moderating domestic demand and the continued resilience in remittances and exports. This assessment was subject to substantial uncertainty arising from the path of global commodity prices, domestic fiscal policy stance and exchange rate movement.

By the time, the committee met in August and October 2022, the risks to inflation and external account outlooks appeared to have contained on account of several factors. First, as seen from the high frequency indicators, the lagged impact of monetary tightening and a range of demand compression measures introduced since last year had successfully curtailed the pace of economic activity. Second, with rising risks to global economic growth prospects, global commodity prices were also on a downtrend. Third, the successful completion of combined 7th and 8th reviews under the IMF's EFF program in August 2022 improved external account outlook. Lastly, a significant supply shock in the form of floods was expected to further weaken demand-side pressures on inflation and current account balance.

In view of these developments and a cumulative monetary tightening by 800 bps since September 2021, the MPC decided to keep the policy rate unchanged in its meetings convened in August and October 2022, while indicating its intentions to remain data-dependent.

As the year progressed, the changing domestic and global economic landscape and successive supply shocks significantly altered the macroeconomic outlook. Particularly, the monsoon floods that hit the country during Jul-Aug 2022 gave rise to food shortages, which amplified existing price pressures. In addition, after the reversal of a temporary administrative cut in electricity prices, energy inflation rose sharply in October 2022, whereas inflation expectations edged up due to increased uncertainty about the path of food and energy prices. The combined impact of these factors along with the second round effects of strong food and energy prices to broader prices and wages, spurred inflation momentum considerably in October 2022.

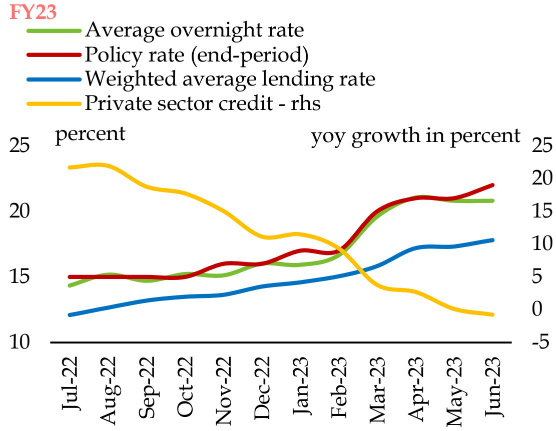
These developments raised concerns about persistent and pervasive inflationary pressures and entrenchment of inflation expectations, which prompted MPC to resume monetary tightening by raising the policy rate by 100 bps in its meeting in November 2022, despite visible slowdown in economic activity and reduction in

CAD. Moreover, after incorporating the impact of floods, the MPC revised its assessment of macroeconomic outlook in November 2022. Specifically, the Committee raised the inflation projection range for FY23 to 21 - 23 percent, whereas the real GDP growth projection was trimmed to around 2 percent.

Notwithstanding the impact of monetary contraction and weakening domestic demand, the headline inflation remained on an upward trajectory as flood driven damages to agriculture produce and livestock exacerbated shortages of various consumer food items causing upward pressure on food prices. In addition, fiscal slippages and external account vulnerabilities owing to meagre financial inflows net of scheduled debt repayments, stemming from tightened global financial conditions and domestic uncertainties also weighed on inflation outcomes through weakening of PKR.

To address the rising external account vulnerabilities, SBP and the government introduced temporary restrictions on imports during the year, which though alleviated pressures on external accounts, amplified domestic shortages of various non-essential items, adding to price pressures. On the other hand, to address concerns about fiscal

Lending Rates and Private Sector Credit-FY23 **Figure 3.4**



Source: State Bank of Pakistan

performance, the government announced increase in taxes and levies through the Finance (Supplementary) Act 2023 in February 2023, and also introduced upward adjustments in POL and gas prices during February 2023. These measures caused upward drift in inflation expectations, besides resulting in an upsurge in inflation from March 2023 onwards.

These developments led the MPC to further revise the inflation projection range upward to 27 – 29 percent for FY23 in March 2023. Keeping in view the deterioration in the near-term inflation outlook, the MPC raised the policy rate by a cumulative 600 bps during the second half of FY23. While assessing the implications of monetary tightening, the MPC noted that, barring any unexpected shocks, the real interest rates had entered a positive territory on a forward-looking basis, which was expected to anchor inflation expectations and bring inflation down towards the medium-term target of 5 – 7 percent by end FY25.

In addition to policy tightening, MPC also emphasized the need of various structural reforms, to achieve the objective of price stability during the year. These included: (i) introduction of non-traditional measures to curtail energy demand for containing trade deficit to sustainable levels and reducing pressures on external accounts; (ii) introducing administrative measures and ensuring timely imports to ease food inflation; (iii) aligning domestic energy prices with global prices and provision of targeted support to the vulnerable segment of society; and (iv) achieving targeted fiscal consolidation to complement monetary tightening to help bring inflation down.

The rise in policy rate was transmitted to weighted average lending rates, which combined with the impact of floods and supply chain disruptions, weakened economic activity during FY23, leading to a decline in private sector credit (**Figure 3.4**).

3.2 Global Inflation and Monetary Policy Responses

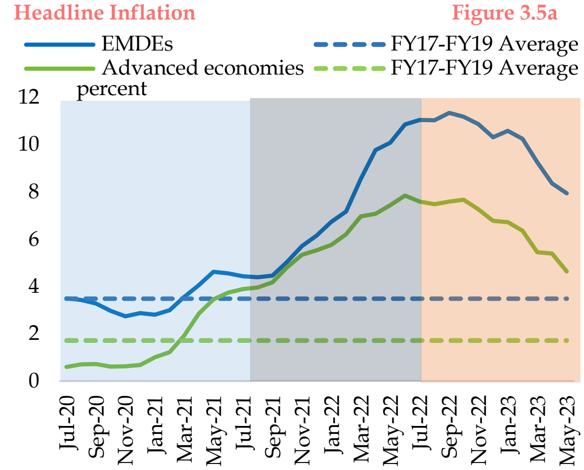
After peaking out around the mid of 2022, headline inflation started to moderate in emerging and developing economies (EMDEs) as well as in advanced economies (AEs) (**Figure 3.5a**); whereas, core inflation remained persistent (**Figure 3.5b**).[1] The declining trend in headline inflation was precipitated by receding global commodity prices, particularly of energy and food, since mid-2022 due to softening global demand alongside some improvement in supply prospects (**Figure 3.6**).

Global economic activity, as measured by Sentix Economic Indicator, remained downbeat in 2022, with only a slight uptick in 2023 (**Figure 3.7**). The global monetary tightening, which had kicked off in late 2021 and early 2022 to tame post-Covid and post-Ukrainian conflict inflationary pressures, helped to slow the pace of global demand. The tightening cycle continued into FY23, as central banks struggled to bring inflation within the targets. The contractionary policies, along with the slowdown in Chinese economy in 2022 amid Covid resurgence and downbeat real estate market, heightened the risk of a global economic recession, which further kept global demand in check.[2, 3]

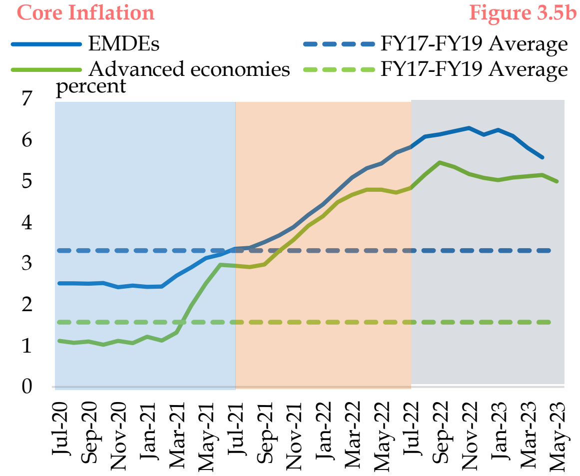
The knock-on impact of these developments in terms of a contraction in global demand for energy products (crude oil and natural gas) was quite pronounced.[4] On the supply side, rerouting of Russian oil via non-sanctioned countries, primarily China and India, contained oil prices, after AEs implemented price cap and ban on oil imports from Russia in December 2022.[5] Moreover, OECD countries decided to release strategic reserves, which helped offset, in part, the OPEC+ production cuts introduced earlier.

The prices of natural gas, after peaking in August 2022, also came down from Q2-FY23 onwards, as fears of shortages in the wake of the Russia-Ukraine conflict had prompted European

Headline Inflation **Figure 3.5a**



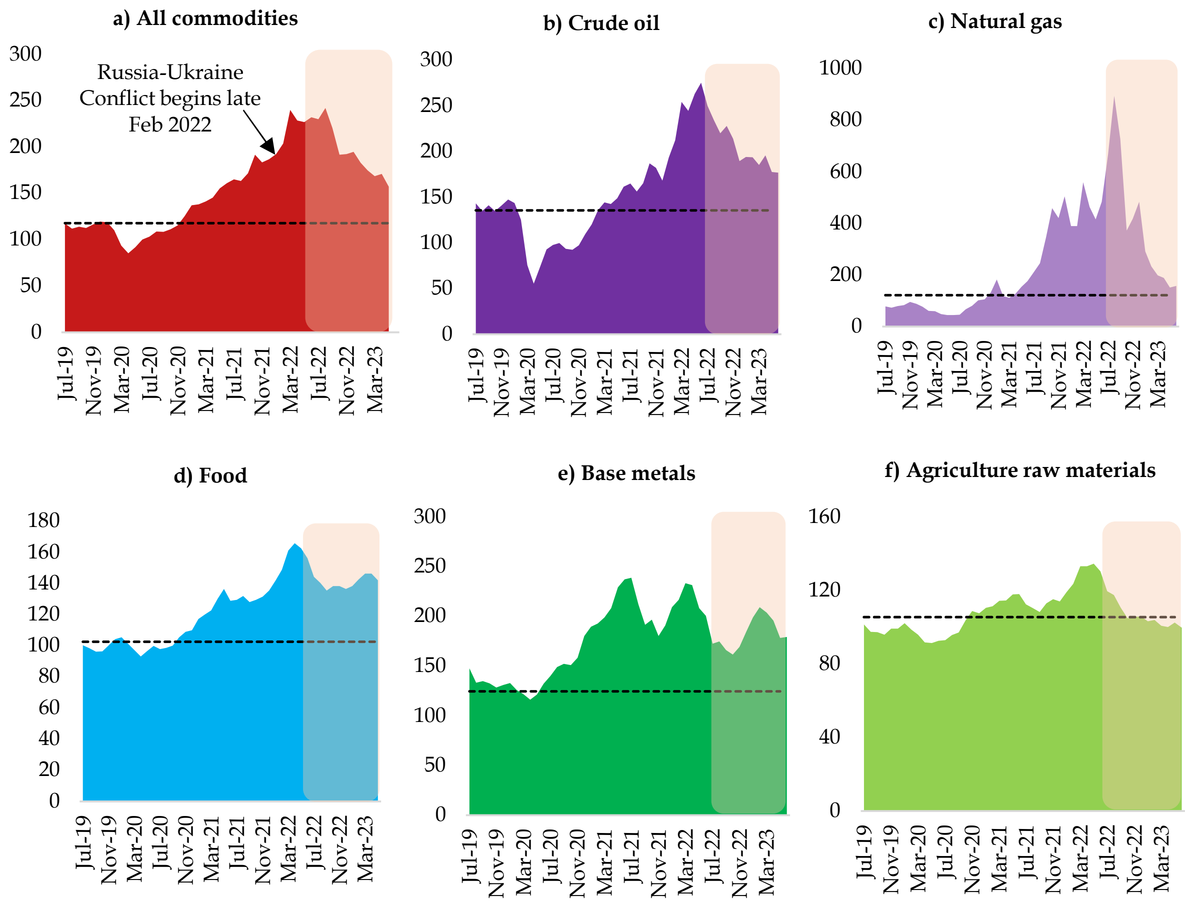
Core Inflation **Figure 3.5b**



Source: Haver Analytics

[1] AEs refer to Canada, France, Germany, Italy, Japan, the United Kingdom and the United States; whereas EMDEs refer to a group of 83 countries.
[2] Growth in world's real GDP declined from 5.8 percent in 2021 to 3.3 percent in 2022. It is expected to decline to 3.0 percent in 2023. Source: OECD, Haver Analytics
[3] China's oil and gas consumption in 2022 declined for the first time since 2000 on year on year basis. Source: IMF, World Economic Outlook April 2023
[4] Source: International Monetary Fund (2023). *World Economic Outlook*. Washington D.C.: IMF
[5] The EU and the UK banned the seaborne crude oil imports from Russia on December 5, 2022. (Source: www.energyandcleanair.org/eu-ban-on-russian-oil-why-it-matters-and-whats-next/)

Global Commodity Price Indices **Figure 3.6**



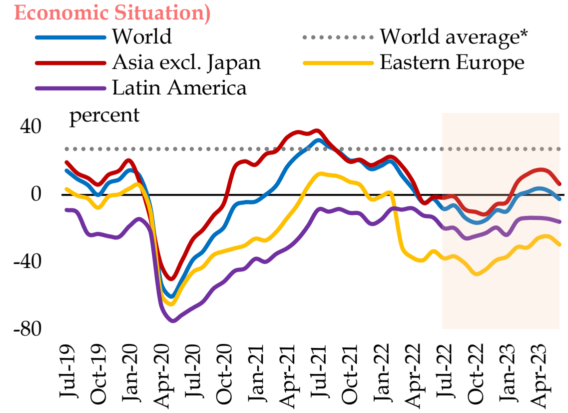
* The dotted lines represent FY17-FY19 average

Source: IMF primary commodities data

countries to adequately fill their storage facilities with LNG imports (partly replacing natural gas). Additionally, warmer-than-expected winter in Europe helped keep demand pressures on gas prices in check. Besides, food prices also retreated in FY23, mainly due to improvement in supply of key food items with the Black Sea Grain Initiative signed in July 2022. Nevertheless, food prices remained volatile in the second half of FY23, with some restrictions still in place, like India's ban on wheat and rice exports, and uncertainty surrounding the Russia-Ukraine conflict.

While headline inflation declined, core inflation turned out to be stickier (**Figure 3.5b**). In the

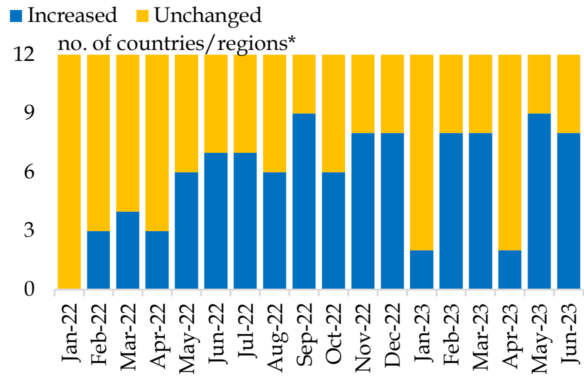
Sentix Economic Indicator (Current Economic Situation) **Figure 3.7**



*FY17-FY19

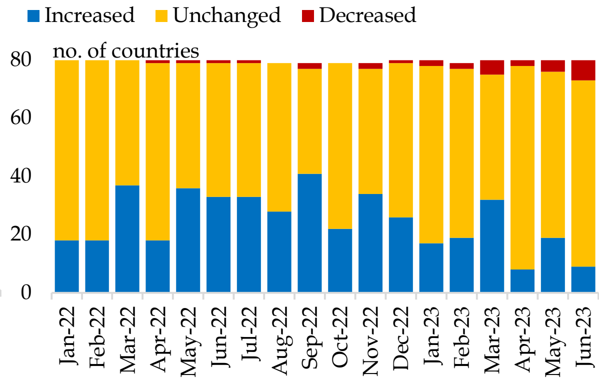
Source: Sentix Index, Haver Analytics

Policy Rate Trends in AEs **Figure 3.8a**



Note: 11 countries + 1 region (Euro Area)
Sources: Haver Analytics, Bank of International Settlements, Central Banks' websites; SBP calculations

Policy Rate Trends in EMDEs **Figure 3.8b**



Note: 80 countries

case of advanced economies, core inflation almost plateaued, whereas in emerging and developing economies, it showed some signs of receding only in the last quarter of FY23. This was despite year-on-year decline in prices of base metals and agriculture raw materials.[6] Second round effects of the earlier increases in the energy prices, tight labor markets and services inflation, which responds to interest rate changes with relatively longer lag, explain higher core inflation.

The persistence of underlying inflationary pressures led many central banks to adopt aggressive monetary policy stance across AEs and EMDEs (**Figure 3.8a & 3.8b**). The pace of monetary tightening, which was rapid in 2022, somewhat reduced in 2023 (January through June). Nevertheless, with inflation still exceeding the pre-Covid levels, as well as the inflation targets, many central banks maintained tight monetary stance, and some central banks in advanced economies further increased the policy rates during the second half of FY23. However, some emerging economies started to reduce policy rates in H2-FY23 in view of lower inflation outturns. This was in contrast to Pakistan's experience, where deteriorating inflation and external account outlooks necessitated a large increase in the policy rate during H2-FY23.

3.3 Pakistan's Monetary Aggregates

The broad money (M2) grew by 14.2 percent in FY23, slightly higher than 13.6 percent in the previous year. The growth in M2 was entirely due to Net Domestic Assets (NDA) of the banking system, which expanded by Rs 5,860.5 billion in FY23 compared to Rs 4,782.9 billion in FY22. The Net Foreign Assets (NFA) of the banking system, reflecting increased stress on external accounts, contracted by Rs 1,932.8 billion in FY23 **(Table 3.1).**

On the asset side, a considerable increase in government budgetary borrowing from the banking system underpinned the expansion in NDA during FY23. The increase in net budgetary borrowing was largely due to unavailability of external financing. Furthermore, borrowings by the Public Sector Enterprises (PSEs) also increased, as energy sector relied heavily on the domestic banking system mainly to settle circular debt related payments. Likewise, the financing under commodity operations was higher than last year, as increase in wheat support price enhanced

[6] Base metals include: Aluminum, Cobalt, Copper, Iron Ore, Lead, Molybdenum, Nickel, Tin, Uranium, Zinc; Agriculture raw materials include: Cotton, Wool, Timber, Rubber, and Hides

Monetary Aggregates[P] **Table 3.1**

flows in billion Rupees; growth in percent

	Change in Stock		Growth		Contribution to M2 Growth	
	FY22	FY23	FY22	FY23	FY22	FY23
M2 (A+B)	3,304.9	3,927.7	13.6	14.2	13.6	14.2
A. NFA	-1,478.0	-1,932.8	-203.9	-256.6	-6.1	-7.0
B. NDA	4,782.9	5,860.5	20.3	20.7	19.7	21.2
Budgetary borrowing	3,133.0	3,744.7	20.4	20.2	12.9	13.6
SBP	-191.1	105.4	-3.6	2.1	-0.8	0.4
Scheduled banks	3,324.1	3,639.3	33.1	27.2	13.7	13.2
Commodity operations	229.7	352.3	25.4	31.1	0.9	1.3
Private sector credit	1,612.1	-72.9	21.1	-0.8	6.6	-0.3
PSEs	-43.3	293.7	-3.1	21.5	-0.2	1.1
Other items net	-156.3	1,116.0	8.7	-56.9	-0.6	4.0
Reserve money	663.1	2,100.8	7.7	22.5	-	-
Currency in circulation	662.5	1,576.3	9.6	20.8	2.7	5.7
Deposits	2,615.1	2,327.6	15.1	11.7	10.8	8.4

P: provisional

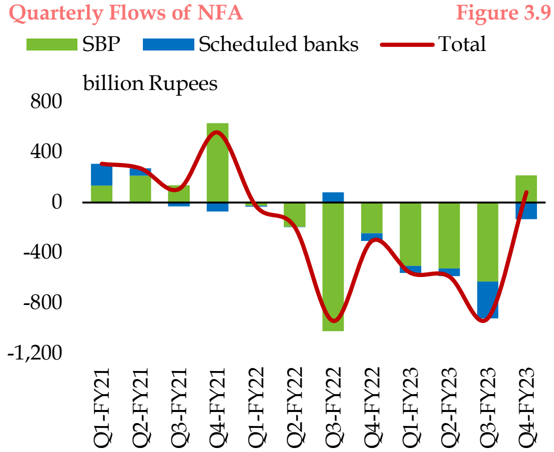
Source: State Bank of Pakistan

borrowing needs of the procurement agencies. Meanwhile, credit to the private sector remained lackluster during FY23 due to the deteriorating economic conditions and rising cost of borrowing amid high interest rates.

With regards to NFA, reduced financial inflows due to uncertainty surrounding the resumption of IMF program in particular and domestic economic environment in general, affected the NFA of the banking system**.** SBPs' NFA reflected most of this decline. However, disbursement of some multilateral and commercial loans in the last quarter of FY23 slightly alleviated pressures on the SBP's FX reserves; hence NFA posted a marginal increase after witnessing a consistent downtrend since Q1-FY22 **(Figure 3.9)**. On the liability side, the growth in currency in circulation accelerated to 20.8 percent in FY23 from 9.6 percent in the previous year, while growth in deposits decelerated from 15.1 percent in FY22 to 11.7 percent in FY23 **(Figure 3.10).**

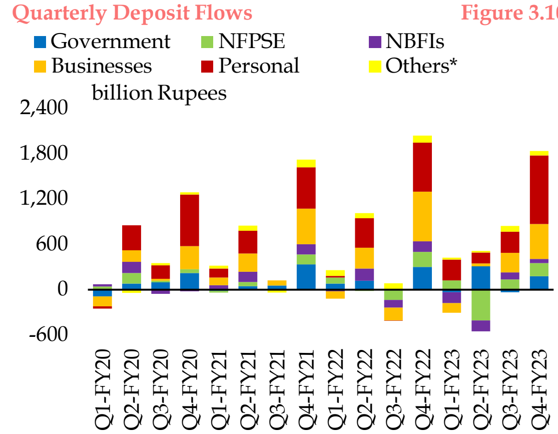
More than half of the increase (55.7 percent) in currency in circulation was concentrated in Q4-FY23, which included the month of Ramazan and two Eid festivals. While the withdrawal of

Quarterly Flows of NFA **Figure 3.9**



Source: State Bank of Pakistan

Quarterly Deposit Flows **Figure 3.10**



* Others include: trusts and non-resident deposits

Source: State Bank of Pakistan

deposits for Ramazan and Eid related spending partly explains this increase, rising macroeconomic uncertainty and high inflation also contributed to the higher currency in circulation. Meanwhile, an overall slowdown in domestic economic activity and decline in workers' remittances was mainly responsible for the deceleration in deposit mobilization during FY23.

Segment-wise bifurcation shows that the deposits of private businesses and Non-Financial Public Sector Enterprises (NFPSEs) decelerated during the review period. The slight slowdown in the deposits of private businesses reflects their inclination to use own funds in a high interest rate environment. In the case of NFPSEs, the slowdown is explained by the reclassification of some of the NFPSEs as federal government institutes from December 2022 onward. On the other hand, deposits of Non-bank Financial Institutions (NBFIs) declined during FY23, as the NBFIs partly shifted their deposits to the government securities aiming to earn higher returns. Meanwhile, personal deposits grew by 15.9 percent in FY23, encouraged by favorable returns on deposits offered by banks amid higher interest rates.

Credit to PSEs

Credit to the PSEs registered an increase of Rs 293.7 billion during FY23, compared to a net retirement of Rs 43.3 billion last year. Bulk of the borrowings were made by a leading oil marketing and distribution company to meet liquidity needs amid pending receivables from other energy-related enterprises.[7] These borrowings primarily reflected the fallout of higher operational losses, particularly the perennial structural deficiencies in the energy sector such as un-targeted subsidies, delayed tariff adjustments, and increase in circular debt over the past many years.[8] Consistently large overdue payments in the energy sector amplified liquidity pressures during FY23. This is despite adjustments in power and gas tariffs during FY23, to contain the pace of accumulation in circular debt.

Commodity Financing

The overall financing under commodity operations increased by Rs 352.3 billion in FY23, compared to an offtake of Rs 229.7 billion last year **(Table 3.2).** Borrowing by wheat procuring agencies dominated this expansion, largely due to increase in Minimum Support Price (MSP) of wheat in order to incentivize farmers.[9] In line with the seasonal procurement operations for wheat, the entire borrowings were concentrated in Q4-FY23.[10] Meanwhile, sugar-procuring agencies increased their borrowings in FY23, as the government allowed sugar mills to export 250,000 MT of sugar in January 2023 **(Chapter 6).**

Commodity Financing — **Table 3.2**

flows in billion Rupees

	FY22	FY23
Total	**229.7**	**352.3**
Wheat	223.5	299.1
Sugar	-0.2	39.9
Cotton	0.1	0.2
Rice	0.0	0.0

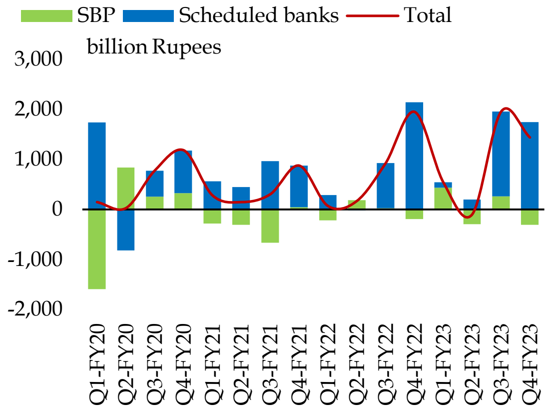
Source: State Bank of Pakistan

Government Borrowings

The government's budgetary borrowings from the banking system grew by 20.2 percent during FY23 over last year. Besides large fiscal deficit, unavailability of adequate external flows increased government's reliance on commercial banks to finance the deficit. Consequently, the

[7] Source: Quarterly Financial Statement of Pakistan State Oil for the period ended March 31, 2023, (www.dps.psx.com.pk/download/document/207213.pdf)
[8] Power sector circular debt rose to Rs 2.5 trillion on end-March 2023, from Rs 2.3 trillion on end-June 2022. Source: International Monetary Fund (2023). *Country Report No. 23/260*. Washington D.C.: IMF.
[9] The provincial governments of Sindh and Punjab announced a sizeable increase in MSP of wheat from Rs 2,200 per 40kg to Rs 4,000 and Rs 3,900 per 40kg respectively for the crop year of 2023-24.
[10] During Q4-FY23, net borrowings by the wheat procurement agencies was Rs 357.6 billion.

Government Borrowings from the Banking System **Figure 3.11**



Source: State Bank of Pakistan

government borrowed Rs 3,639.3 billion from commercial banks in FY23, compared to a borrowing of Rs 3,324.1 billion last year **(Figure 3.11).**

Primary Auctions

Soaring inflation and external pressures that led to almost successive hikes in the policy rate by a cumulative 825 bps during FY23, kept upward pressure on cut-off rates in the auctions of government securities throughout the year. Further, the market remained inclined towards 3-month T-bills and floating coupon PIBs (PFLs) to minimize losses due to increase in interest rates in the intervening periods. On its part, to contain rollover risk while meeting its large financing requirements, the government also allocated higher targets (on net of maturity basis) for PFLs **(Table 3.3)**. Specifically, the government assigned around one-half (46.1 percent) of the auction targets, on net of maturity basis, to PFLs followed by 22.3 percent for variable rental rate (VRR) GoP Ijara Sukuks and 13.6 percent for T-bills.

In overall terms, the market offered nearly double the target amount during FY23. Within T-bills, the government assigned most of the targets (net of maturity) to 12-month bills followed by 6-month bills. Given the market expectation of increase in interest rates, most of the market offers were placed in 3-month T-bills, where the offer-to-target ratio stood at 3.9 during FY23 (**Figure 3.12**). On the other hand, the offers for 6-month and 12-month bills remained lower than the targets. Following the increase in the policy rate, the cut-off rates remained on an upward trajectory during the year in almost all auctions. Investors' keen interest in 3-month paper urged the government to accept about 60 percent of the offered amount in this instrument. Most of the issuances were made during the fourth quarter when the investors shied away from locking funds in PFLs.[11]

For PFLs, the market behavior underwent a shift during the year. The quarterly trends show that the market offers for PFLs exceeded three times of the target amount during H1-FY23, in a bid to benefit from attractive returns by locking funds in medium and long-term variable rate instruments. However, in Q4-FY23, the market moved away from PFLs and shifted its interest towards T-bills and fixed rate PIBs. The offer-to-target ratio for PFLs fell to 1.0 times in Q4-FY23 from an average of 3.0 times during the first three quarters. The higher yields on fixed rate PIBs made it an attractive instrument as market was expecting a status quo or decrease in policy rate in the last quarter.

In overall terms, the total acceptance of fixed rate PIBs slightly exceeded the maturing amount during FY23, because of the market's interest to lock funds at prevailing higher interest rates offering about twice the net of maturity amounts. However, to avoid higher cost of borrowing, the government accepted only about one-third of the offered amount in fixed rate PIBs.

Similar to the conventional market, the government set higher targets (net of maturity) for VRR Shariah-compliant instruments. However, the market's interest in Islamic

[11] In view of a sharp increase in financing requirements, the government mobilized around three times of its pre-auction target amount on net of maturity basis via conventional instruments.

Auction Summary — **Table 3.3**

billion Rupees

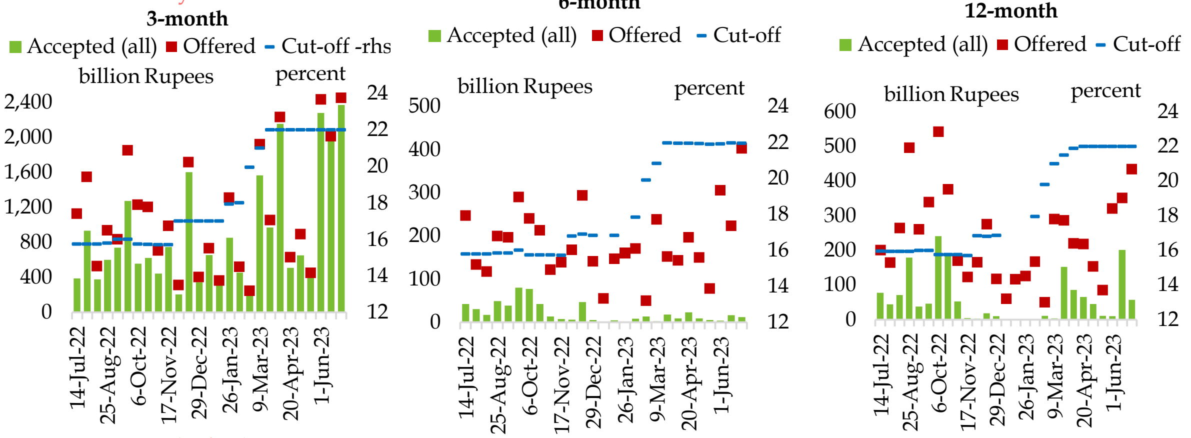
	Target	Maturity	Offered (competitive)	Accepted (all)
Treasury Bills				
Q1-FY23	4,950.0	5,061.3	9,731.1	5,023.9
Q2-FY23	5,800.0	5,798.7	9,641.2	5,235.5
Q3-FY23	5,400.0	5,104.0	8,207.9	5,255.3
Q4-FY23	8,275.0	7,726.6	14,387.2	10,957.0
FY23	24,425.0	23,690.6	41,967.4	26,471.7
Pakistan Investment Bonds				
Fixed Rate				
Q1-FY23	500.0	1,132.2	1,977.0	687.0
Q2-FY23	525.0	-	977.4	255.5
Q3-FY23	300.0	-	358.4	26.4
Q4-FY23	360.0	-	765.5	333.5
FY23	1,685.0	1,132.2	4,078.3	1,302.4
Floating Rate				
Q1-FY23	620.0	-	2,123.7	1,253.4
Q2-FY23	840.0	292.3	3,147.9	2,152.7
Q3-FY23	970.0	-	1,908.1	1,396.7
Q4-FY23	1,030.0	682.3	1,048.0	552.4
FY23	3,460.0	974.6	8,227.7	5,355.2
Ijara Sukuks				
GIS-FRR				
Q1-FY23	65.0		78.1	19.7
Q2-FY23	120.0		5.6	0.2
Q3-FY23	110.0		6.2	1.2
Q4-FY23	120.0		241.7	113.9
FY23	415.0	-	331.6	135.0
GIS-VRR				
Q1-FY23	195.0		220.3	101.1
Q2-FY23	280.0		372.0	243.8
Q3-FY23	360.0		112.8	35.5
Q4-FY23	370.0		591.1	355.5
FY23	1,205.0	-	1,296.2	735.9
Total FY23	**31,190.0**	**25,797.4**	**55,901.2**	**34,000.2**

Source: State Bank of Pakistan

instruments remained lukewarm in the first three quarters of FY23 (**Table 3.3**). In H1-FY23, auction of GoP Ijara Sukuks only consisted 5-year bonds, as the market did not find 5-year FRR lucrative in an increasing interest rate environment, and shifted towards VRR. Nonetheless, the introduction of 1-year and reintroduction of 3-year Ijara Sukuks in Q3-FY23 revived market interest in these instruments. Moreover, after the introduction of relatively shorter-tenor Sukuks, the market did not make any bids in 5-year FRR. Similarly, offers in 5-year VRR also remained low throughout the year, except for May and June 2023.

Another reason for lower offers in the Shariah-compliant instruments was relatively tighter liquidity condition in the market for Islamic Banking Institutions (IBIs). Although, the introduction of shorter-tenor Ijara Sukuks helped in managing this gap, the market could not capitalize on the opportunity to earn higher profit due to lower deposits. This, along with the mismatch between the maturity of OMO (Open Market Operations) injections and the

Auction Summary of T-Bills **Figure 3.12**



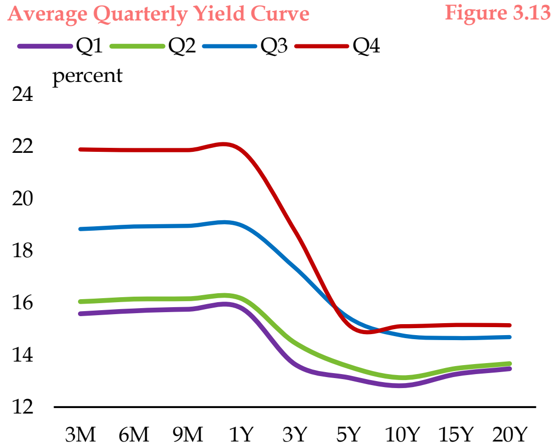
Source: State Bank of Pakistan

securities restricted participation in the market for the Islamic debt securities. For instance, the longest tenor OMO is of 77 days, whereas the shortest tenor GoP Ijara Sukuk is of one year. In view of these factors, the government mobilized only 61.1 percent of its net of maturity target amount from VRR and 32.5 percent from FRR.

Meanwhile, the increase in interest rates along with high inflation expectations, economic uncertainties, external sector weaknesses and limited financing avenues shifted the yield curve upward **(Figure 3.13)**. This led to increase in spread between the secondary market yields and the policy rate, especially in H2-FY23. For instance, the average quarterly spread between the policy rate and yields on 12-month paper increased to 132.5 bps, 126.7 bps for 6-month and 102.4 bps for 3-month paper in Q3-FY23.

In overall terms, in response to a cumulative 825 bps hike in the policy rate, the yield of 3-month paper rose by 767 bps, whereas it increased by 772 bps and 763 bps for 6-month and 12-month, respectively. On the other hand, the hike in the yield of longer-tenor instruments remained relatively low during FY23 with 315 bps increase in 5-year bonds, 240 bps in 10-year and 178 bps for 20-year bonds, indicating monetary policy easing in the long-run.

Average Quarterly Yield Curve **Figure 3.13**

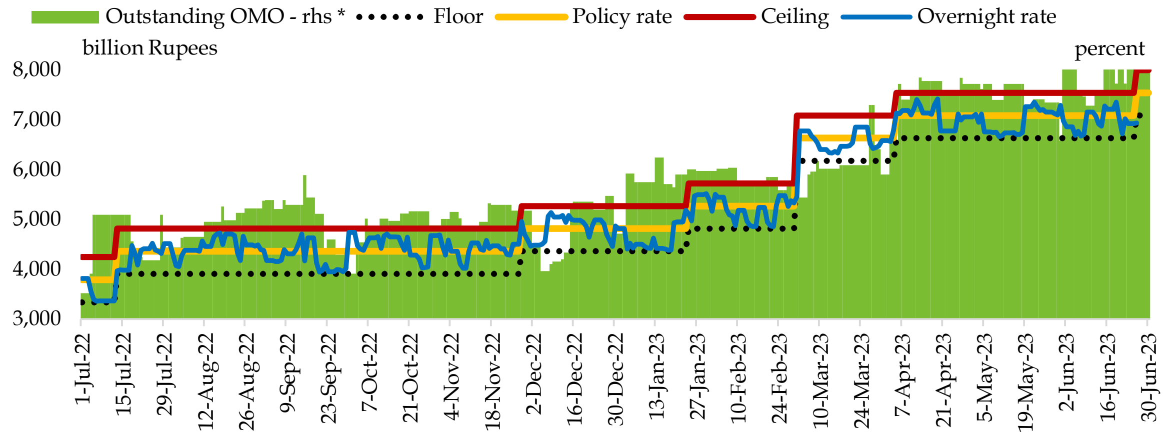


Source: State Bank of Pakistan

Interbank liquidity

Liquidity requirements of the interbank money market remained substantially higher in FY23 compared to last year. Several factors contributed to increased demand for liquidity. First, amid unavailability of external financing, and restrictions on borrowing from the SBP, the government mostly relied on commercial banks to meet its financing requirements. Second, the government made a net retirement of external debt, over Rs 1 trillion in PKR terms, which drained liquidity from the interbank market. Third, the rising macroeconomic uncertainty and escalating inflationary pressures resulted in a large expansion in currency in circulation that rose by around Rs 1.6 trillion in FY23 compared

Liquidity Indicators, FY23 **Figure 3.14**



Source: State Bank of Pakistan

to Rs 662.5 billion in FY22. Lastly, on the supply side, deposit mobilization of commercial banks remained considerably lower in FY23.

Keeping in view the significant pressures on interbank liquidity conditions due to above-mentioned factors, SBP provided liquidity through regular 7-day and longer-tenor OMOs. The average outstanding stock of OMOs more than doubled to Rs 5,823.7 billion in FY23, from Rs 2,495.4 billion in FY22. The share of longer-tenor OMOs, 63-days and 77-days, rose substantially to 56.8 percent of overall liquidity injections in FY23, compared to 5.0 percent last year.

Also, the frequency and volume of these longer-tenor OMOs considerably increased to meet market's higher liquidity requirements. During FY23, the SBP cumulatively injected Rs 32.5 trillion through 41 longer-tenor OMOs compared to around Rs 5.7 trillion through nine longer tenor injections in FY22. The liquidity thus injected via longer-tenor OMOs more than sufficed the requirements of the market, thus the ONR remained below the policy (target) rate most of the time (on 125 days) during FY23 **(Figure 3.14).** Meanwhile, with the exception of the last quarter, the ONR remained more volatile in FY23, compared to FY22.[12] In FY22, ONR mostly remained above the policy rate, due to both increase in liquidity requirements and the market's expectation about further monetary tightening because of rising inflationary pressures.

OMO Mop-ups **Table 3.4**

amount in billion Rupees

	Total no. of mop-ups		Avg. amount per mop-up	
	FY22	FY23	FY22	FY23
Q1	1	6	203.0	432.9
Q2	2	5	47.7	178.2
Q3	0	4	-	503.1
Q4	2	5	296.3	246.7
Total	5	20	178.2	336.7

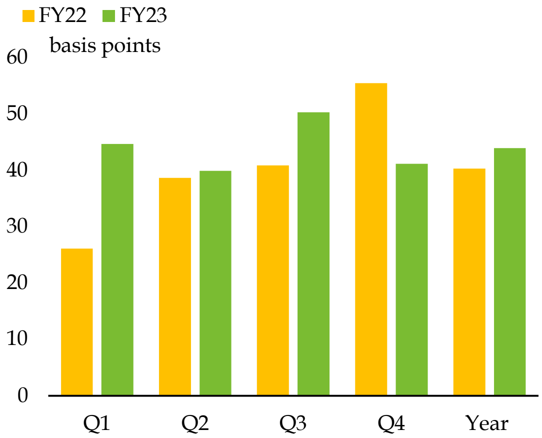
Source: State Bank of Pakistan

This is also evident from high activity on SBP corridor's floor almost throughout FY23.[13] Furthermore, the SBP conducted twenty OMOs to mop up excess liquidity from the interbank market, compared to 5 times last year, whereas the volume of liquidity mopped up in each OMO nearly doubled to Rs 336.7 billion in FY23 from Rs 178.2 billion in FY22 **(Table 3.4).** However, the volatility in ONR was lower in Q4-FY23 than that observed in Q4-FY22 **(Figure 3.15)**. In Q4-FY22, the market's expectations of rate hikes in the light of rising inflationary pressures and growing borrowing needs of the government induced higher volatility in the

[12] The standard deviation of ONR increase to around 257 bps in FY23 compared to 218 bps in FY22

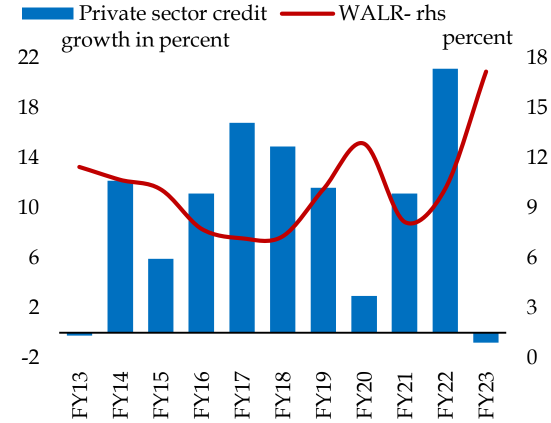
[13] In overall terms, the market used SBP repo facility 558 times and parked a cumulative sum of Rs 17.1 trillion during FY23, compared to Rs 7.3 trillion placed on 217 occasions in FY22.

Deviation in Overnight Repo Rate **Figure 3.15**



Source: State Bank of Pakistan

Credit to Private Sector **Figure 3.16**



Source: State Bank of Pakistan

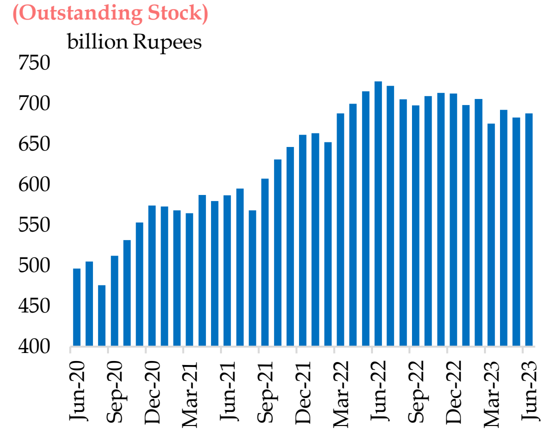
ONR. On the other hand, in Q4-FY23, the market was expecting the policy rate to either decrease or remain unchanged; the policy rate remained at 21 percent for most of the time in Q4-FY23, which also resulted in fewer deviations from the policy rate.

To effectively manage the liquidity of IBIs, the SBP started Shariah Compliant Mudarabah Based OMOs (injections only) in the fourth quarter of FY22.[14] The average outstanding stock of these OMOs slightly increased to Rs 539.0 billion during FY23 from Rs 467.3 billion in FY22. This increase indicates relatively tight liquidity conditions in the Islamic based money market (Mudarabah).

3.4 Credit to Private Sector

Credit to private sector declined by 0.8 percent in FY23, compared to a growth of 21.1 percent last year **(Figure 3.16).** A host of factors discouraged private sector credit offtake during FY23. First, the policy-driven moderation in the pace of economic activity contained the credit demand of industries. The SBP also linked the rates on EFS and LTFF to the policy rate for strengthening the transmission mechanism of monetary policy.[15] Moreover, a new framework has been developed under which the SBP's operational involvement in the two largest refinancing schemes (EFS and LTFF) is set to cease at the end of a 5-year transition period beginning from July 2023.[16] The borrowing under the refinancing schemes has peaked out since June 2022; while as of June 2023, the total outstanding amount under EFS declined by 5.4 percent to Rs 688.4 billion from Rs 728.1 billion as of June 2022 **(Figure 3.17).**

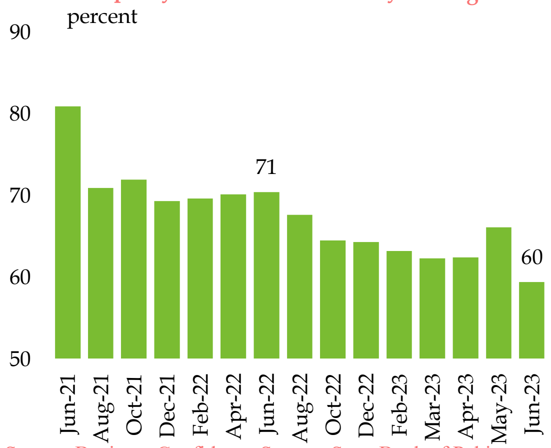
Export Financing Scheme (Outstanding Stock) **Figure 3.17**



Source: State Bank of Pakistan

[14] Currently, this mechanism only allows Islamic banks to borrow from the central bank via OMO injections or through SBP reverse repo (ceiling) facility; while OMO mop-ups and SBP repo (floor) facility are not available to IBIs.
[15] SBP, on average, raised the rates of EFS (from around 4 percent in FY22) and LTFF (from around 5 percent in FY22) to over 13 percent in FY23. Source: IH&SMEFD Circular No. 6, 7, 11 and 13 of 2022, State Bank of Pakistan.
[16] Source: International Monetary Fund (2023). *Country Report No. 23/260*. Washington D.C.: IMF

Current Capacity Utilization of Industry **Figure 3.18**



Source: Business Confidence Survey, State Bank of Pakistan

The slowdown in credit to private sector businesses mainly came from working capital loans, while growth in fixed investment loans decelerated. According to the SBP's Bank Lending Surveys during FY23, the overall demand for loans declined due to multiple factors, including deterioration in economic conditions, political uncertainty and increased cost of borrowing. The lower demand for credit is also in line with 5.1 percent decline in total number of loan applications received by banks in FY23 over last year.

On the demand side, the slowdown in domestic economic activity and construction led to significant fall in credit uptake **(Table 3.5).** Moreover, the flood-related disruptions and FX constraints, that led the government and the SBP to introduce various measures to contain domestic demand and imports during FY23, also impinged on economic activity and hence private sector borrowings. In particular, constrained availability of raw materials resulted in partial closure of various businesses in the manufacturing sector during the review period, which include textiles, automobiles and refined petroleum sectors.[17] This also led to a decline in capacity utilization during FY23 **(Figure 3.18).**

Credit Demand Slows Amid Lower Economic Activity **Table 3.5**

growth in percent

	FY22	FY23
Cost of production		
Exchange rate* (PKR/USD)	-9.8	-28.5
Electricity tariffs	22.6	25.6
Domestic fuel prices	37.8	62.0
Cotton prices	69.1	8.8
Sugarcane prices	13.6	27.5
Construction input items	11.4	32.5
Economic activity		
LSM	11.7	-10.3
Car sales	54.9	-58.7
PoL sales	14.4	-26.5
Cement dispatches	-1.0	-16.0
PSDP	33.5	17.1
Remittances	6.2	-13.6

*Bank floating average exchange rates

Sources: SBP, MoF, PBS, PAMA, World Bank

A mix of demand and supply side factors contained textile sector's working capital requirements

Textile sector working capital loans slumped to Rs 55.9 billion in FY23, compared to Rs 237.7 billion last year **(Table 3.6).** Several factors have contributed to this decline. First, the overall demand for textile products has been affected both in the domestic as well as international markets, which is in line with a slowdown in local and export sales of the textile sector during Jul-Mar FY23, compared to the same period last year **(Figure 3.19).** On the international front, slower economic activity amid rising cost of living and mortgage rates have affected the demand for the country's textile products, as reflected by lower export volumes of major textile products during the period **(Chapter 6)**. Second, the textile industry was also affected by

[17] Source: Pakistan Stock Exchange, Nishat Chunian Ltd. (www.dps.psx.com.pk/download/document/199808.pdf); Crescent Fibres Ltd. (www.dps.psx.com.pk/company/CFL); Pak Suzuki Motor Company Ltd. (www.dps.psx.com.pk/download/document/205072.pdf); Indus Motor Company Ltd. (www.dps.psx.com.pk/download/document/207293.pdf); Attock Refinery Ltd. (www.dps.psx.com.pk/download/document/207869.pdf)

Loans to Private Sector Businesses — **Table 3.6**

flows in billion Rupees

	Total Loans*		Working Capital**		Fixed Investment	
	FY22	**FY23**	**FY22**	**FY23**	**FY22**	**FY23**
Private Sector Businesses	**1,215.5**	**31.1**	**698.8**	**-145.0**	**451.4**	**173.8**
Manufacturing	903.0	89.4	610.0	-39.9	279.6	128.8
Textile	364.1	95.2	237.7	55.9	122.2	40.3
Refined petroleum	2.9	47.2	4.4	45.4	-1.5	1.9
Basic pharmaceutical products	11.0	17.3	9.2	15.7	0.0	1.9
Cement, lime and plaster	42.6	36.5	7.9	9.9	34.3	27.0
Wearing apparel	53.8	10.4	42.8	5.9	8.9	4.6
Rice processing	33.1	3.3	27.2	4.7	5.7	-1.4
Vegetable and animal oils and fats	6.2	1.9	4.4	0.8	1.5	1.1
Sugar	47.3	-12.3	49.2	-1.2	-1.9	-11.4
Fertilizers	-1.5	-8.4	-9.9	-6.1	8.4	-2.3
Motor vehicles	29.9	-12.8	18.2	-13.0	10.7	1.2
Paper & paper products	40.9	3.9	24.9	-15.9	16.0	19.7
Basic chemicals	31.0	-3.9	24.4	-20.5	6.6	16.7
Basic iron and steel	44.2	-35.5	32.4	-37.6	11.8	2.3
Telecommunications	91.2	63.2	-4.3	14.9	95.4	48.3
Agriculture, forestry and fishing	34.2	17.9	19.2	-6.2	13.9	24.2
Construction	33.9	1.9	-0.4	9.4	-4.4	1.0
Real estate activities	6.2	-0.8	0.7	0.7	0.7	-2.3
Mining and quarrying	-3.1	14.4	-8.6	16.9	5.5	-2.5
Power generation, transmission and distribution	58.8	-47.6	17.2	-41.8	41.7	-5.8
Transportation and storage	13.5	-8.4	10.0	-2.3	2.9	-6.1
Wholesale and retail trade	69.3	-69.9	64.3	-73.6	2.7	-9.1

*Total loans in FY22 and FY23 include net borrowings of Rs 65.3 billion and Rs 2.3 billion, respectively, under construction financing. The data on credit/loans has been revised since June 2020 due to inter-sectoral adjustment in private sector business (see IH&SMEFD Circular Letter No. 28 of 2020). Therefore, in this table, total loans may not be necessarily equal to the sum of working capital and fixed investment loans ** working capital includes trade financing

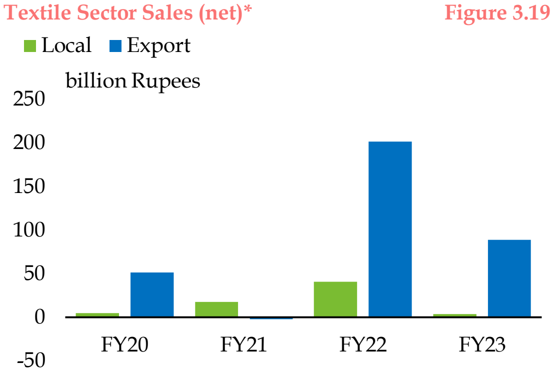
Source: State Bank of Pakistan

the discontinuation of Regionally Competitive Energy Tariffs (RCET) in June 30, 2022.[18]

Third, floods severely affected cotton crop production, which fell by 41.0 percent in FY23.[19] Lower availability of domestic cotton for textile industry was instrumental in driving down the production of cotton yarn and cotton cloth (major textile items) by 22.1 percent and 12.4 percent, respectively, in FY23, which also translated into lower credit offtake by the industry.

Fourth, as mentioned above, the linking of the EFS rates with the policy rate resulted in the EFS rate rising to over 13 percent on average in FY23

Textile Sector Sales (net)* — **Figure 3.19**

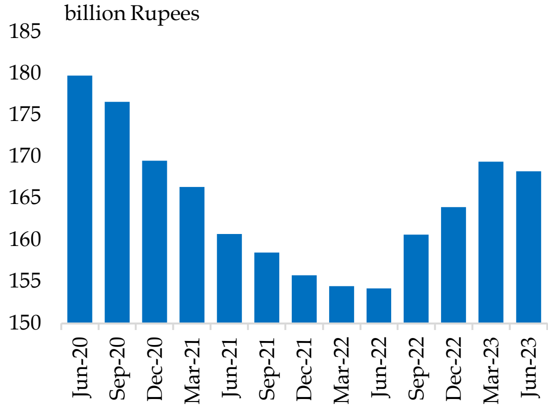


* July-March

Source: State Bank of Pakistan- quarterly financial statement analysis of selected listed non-financial companies

[18] Source: APTMA press release dated July 21, 2022, (www.aptma.org.pk/wp-content/uploads/2023/08/16.-21st-July-2022.pdf)
[19] Source: Ministry of Finance (2022-23). Pakistan Economic Survey. Islamabad: Ministry of Finance.

Gross NPLs of Textile Sector **Figure 3.20**



Source: State Bank of Pakistan

from around 4 percent in FY22, might have resulted in lower borrowing. The textile sector performance was also reflected by the increase in gross non-performing loans (NPLs) **(Figure 3.20).**

Rising inventory levels along with worsening financial position raised working capital needs of petroleum refining

Refined petroleum, was one of the few sectors, where credit offtake was higher than last year. This increased borrowing is attributed to the sector's deteriorating financial position. Some of the major oil refineries had temporarily shut down their distillation units in order to manage the higher inventory levels, which rose by 66.0 percent owing to the fall in demand for petroleum products during FY23.[20,21]

Slowdown in construction activities led to a net retirement in credit by iron and steel sector

A major drag to working capital loans came from a net retirement of Rs 37.6 billion by iron and steel firms, compared to an offtake of Rs 32.4 billion last year. This reflected sluggish construction activity in both public and private sectors, which pared demand for construction-allied sectors, including iron and steel. This can be seen from a deceleration in PSDP spending from 33.5 percent in FY22 to 17.1 percent in FY23. Furthermore, weakening incomes, decline in remittances, crop losses and a general downturn in economic activity contributed to the slack in private sector construction activities. In addition, import constraints and reduced availability of construction material, also weighed on borrowing needs of the sector.[22]

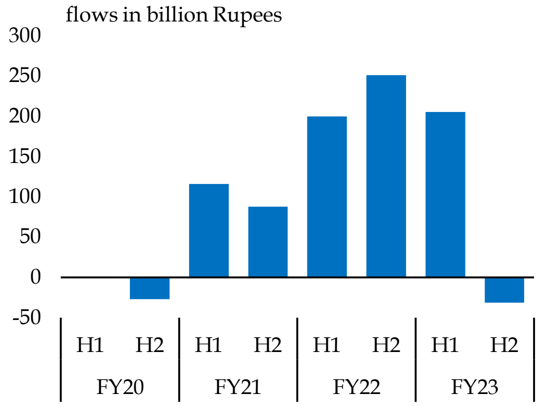
Among the non-manufacturing sector, wholesale and retail trade retired loans of Rs 73.6 billion in FY23, compared to an offtake of Rs 64.3 billion last year. The previous year's increase was due to higher borrowings by major oil marketing companies (OMCs) to finance the import of petroleum products. In FY23, however, an overall slowdown in economic activity dampened the demand for petroleum products, which led the OMCs to retire loans (**Table 3.5**).[23] Further loan retirements came from the wholesale businesses of fertilizers, as relatively lower international DAP (Di-Ammonium Phosphate) prices during FY23 contained the borrowing needs of wholesalers.[24] Moreover, the lower demand for loans is also explained by a 63.5 percent decline in the imports of DAP.

Fixed investment loans lost momentum

The fixed investment loans decelerated to Rs 173.8 billion in FY23, compared to an offtake of Rs 451.4 billion last year. The entire increase was concentrated in H1-FY23; as the pace of disbursement under the SBP's concessionary financing schemes (LTFF and TERF) tapered-off in the second half **(Figure 3.21).** In fact, the

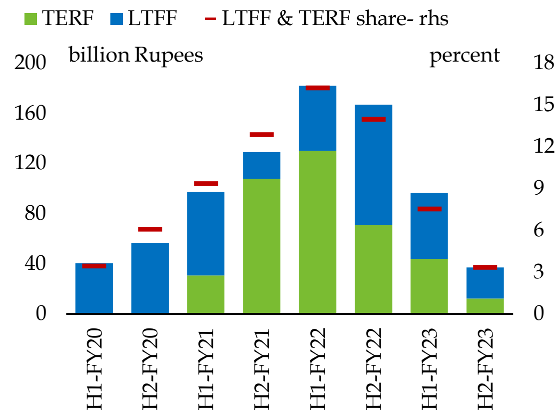
[20] Source: Pakistan Stock Exchange, also available at: www.dps.psx.com.pk/download/document/207869.pdf
[21] Source: SBP; Quarterly Financial Statements Analysis of Selected Listed Non-Financial Companies, March 31, 2023.
[22] Steel manufacturing declined by 5.1 percent during FY23, over last year.
[23] Petroleum products sales posted 26.5 percent y/y decline during FY23. Likewise, the import volume of petroleum products also dropped by 38.4 percent during the year.
[24] Average DAP prices in the international market dropped by 13.6 percent during FY23 (Source: World Bank).

Fixed Investment Loans **Figure 3.21**



Source: State Bank of Pakistan

Gross Disbursements under LTFF and TERF **Figure 3.22**



Source: State Bank of Pakistan

share of LTFF and TERF disbursements in total fixed investment loans declined from 15.0 percent in FY22 to 5.6 percent in FY23 **(Figure 3.22).**

Lower loan disbursements under LTFF may be attributed to linking of LTFF rates with the policy rate aiming to strengthen the monetary transmission, as the financing rates under LTFF rose from 5.3 percent in FY22 to 13.7 percent in FY23, on average. Meanwhile, the slowdown in disbursements under TERF is due to the maturity of the scheme in March 2021. Out of the approved amount, most of the disbursements were made in FY22.[25]

Within the manufacturing sector, textile dominated fixed investment loans by borrowing Rs 40.3 billion in FY23, compared to an offtake of Rs 122.2 billion last year. The textile firms borrowed for enhancing production capacity, and to reschedule loans. Other than textile, cement industry was a notable borrower of long-term loans within the manufacturing sector. Major cement manufacturers borrowed long-term loans for capacity expansion and investment in the renewable energy sources.[26]

In the non-manufacturing sector, the telecom sector availed fixed investment loans amounting to Rs 48.3 billion during FY23, compared to an offtake of Rs 95.4 billion last year. A major telecom firm availed syndicate financing for injecting equity into its wholly-owned subsidiary, besides capacity expansion.

Consumer financing dropped

Consumer loans posted a net retirement of Rs 40.4 billion in FY23, compared to an offtake of Rs 192.2 billion last year **(Table 3.7).** While loans to consumers remained lackluster for all segments, the major drag came from automobile loans.

The downtrend in overall consumer loans is primarily attributed to high borrowing cost, as reflected by increase in the average WALR to 17.5 percent during FY23, from 10.2 percent last

Consumer Financing **Table 3.7**

flows in billion Rupees

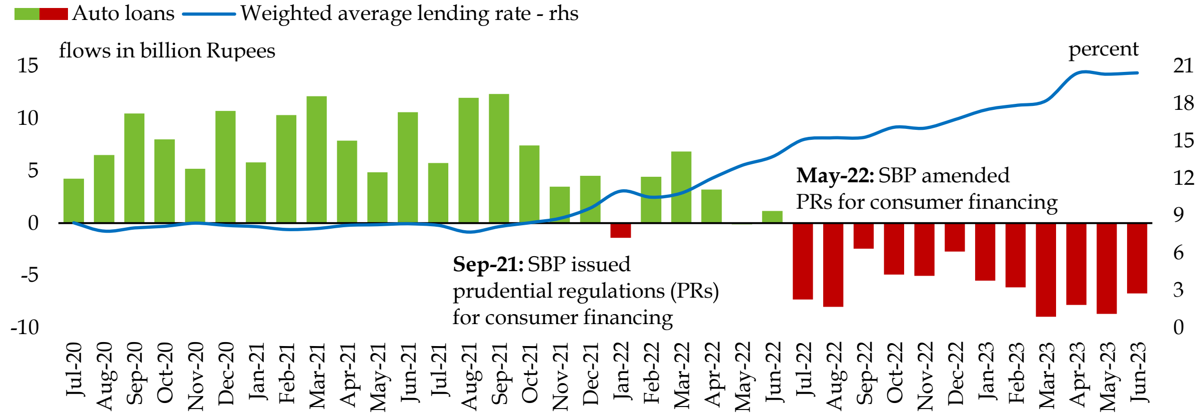
	FY21	FY22	FY23
Total Consumer Financing	**174.0**	**192.2**	**-40.4**
Credit cards	12.0	17.7	21.0
House building	23.8	97.1	11.6
Personal loans	43.0	16.4	1.2
Consumers durable	-1.8	1.2	0.0
Auto loans	97.0	59.7	-74.1

Source: State Bank of Pakistan

25 As of end-June 2023, Rs 394 billion (over 90 percent) of the total approved amount of Rs 436 billion under TERF has been disbursed to the private sector businesses.
26 For details, see Chapter 3 of SBP's Half Year Report FY23 on the State of the Pakistan's Economy.

Automobile Loans

Figure 3.23



Source: State Bank of Pakistan

year **(Figure 3.23).** Besides higher interest rates, SBP's macro-prudential measures also restricted auto finance. In September 2021, and later in May 2022, SBP had introduced several amendments to the Prudential Regulations (PRs) for consumer financing aiming to moderate the auto loans by increasing the down-payment requirement and reducing the maximum tenure of auto financing.[27] Moreover, in May 2022, banks were required to obtain prior approval from the SBP at the time of opening L/Cs of 25 high value capital goods, including CKD cars.[28]

In addition, the automobile manufacturers raised car prices, owing to the increase in cost of production, which further pared the demand for vehicles. This is in line with 58.7 percent decline in car sales during FY23 over last year.

Apart from auto loans, house-building loans also decelerated amid sluggish construction sector. Borrowing for house-building segment dropped to Rs 11.6 billion during FY23, compared to an offtake of Rs 97.1 billion last year.

3.5 Inflation

The average headline National CPI (NCPI) inflation rose to 29.2 percent in FY23, from 12.2 percent in FY22. The surge in inflation was broad-based with non-perishable food items having a dominant contribution, followed by the Non-Food Non-Energy (NFNE) and energy group (**Table 3.8**). A host of domestic and global supply shocks led to the surge in inflation, including: (i) flood-induced domestic food shortages; (ii) increase in energy prices; (iii) exchange rate depreciation; and (iv) domestic supply constraints arising from raw material shortages. Moreover, rising domestic uncertainty also compounded price pressures during the year.

Inflationary pressures intensified during the second half of FY23, with the worsening impact of supply shocks (**Figure 3.24**). The impact of escalating food and energy inflation spilled over to general prices, which increased costs and also raised inflation expectations, pushing core

[27] The PRs issued in September 2021 included: (i) reduction in maximum tenure of the auto finance facility from seven years to five years; (ii) maximum limit of Rs 3 million in aggregate, allowed to be availed by a person from all banks/DFIs; (iii) increase in the minimum down payment for auto financing from 15 percent to 30 percent. In May 2022, two main amendments were introduced in the existing PRs: (i) The maximum tenure of auto finance facility was reduced from 5 years to 3 years for vehicles above 1,000 cc, and from 7 years to 5 years for vehicles up to 1,000 cc; and (ii) the PRs issued earlier to be applicable on financing for all locally assembled/ manufactured vehicles. Source: SBP, BPRD Circular Letter No. 29 of 2021, and BPRD Circular Letter No.19 of 2022.
[28] Source: State Bank of Pakistan. (www.sbp.org.pk/epd/2022/FECL9.htm)

Average CPI Inflation and Contribution — **Table 3.8**

percent

	Urban						Rural					
Items	**Wt.***	**H1-FY23**	**H2-FY23**	**FY22**	**FY23**	**Cont.***	**Wt.***	**H1-FY23**	**H2-FY23**	**FY22**	**FY23**	**Cont.***
CPI	**100.0**	**23.1**	**30.4**	**11.8**	**26.8**		**100.0**	**27.9**	**37.0**	**12.6**	**32.6**	
Food & non-alcoholic beverages	30.4	30.7	42.8	13.7	37.0	11.8	40.9	33.9	47.9	13.2	41.2	17.6
Perishable food items	4.5	45.6	38.2	7.5	41.8	1.9	5.8	49.9	42.6	9.0	46.1	2.7
Non-perishable food	26.0	28.2	43.5	14.7	36.2	10.0	35.1	31.4	48.7	13.9	40.5	14.9
Wheat	0.6	48.6	83.4	10.9	66.8	0.5	3.5	46.6	86.7	9.2	67.6	2.6
Wheat flour	3.0	31.2	81.1	16.0	56.7	1.7	3.4	28.8	75.4	15.9	52.8	1.9
Cooking oil	1.1	56.2	36.6	49.9	45.1	0.7	0.6	56.5	28.7	55.4	40.6	0.4
Meat	2.0	24.5	19.9	20.7	22.1	0.5	1.7	24.7	19.8	21.0	22.1	0.5
Milk fresh	7.1	26.9	33.8	12.5	30.5	2.1	10.4	26.1	37.5	11.0	32.0	3.0
Veg. ghee	1.0	51.9	28.6	50.4	38.8	0.6	2.4	55.9	26.0	52.6	38.8	1.5
Pulse masoor	0.2	65.8	20.2	32.1	40.0	0.1	0.2	72.4	24.1	31.1	45.0	0.1
Tea	0.8	42.4	94.8	8.2	69.5	0.6	1.3	38.8	87.5	7.7	64.0	0.7
Clothing and footwear	8.0	18.1	19.7	10.8	18.9	1.5	9.5	16.3	20.8	9.9	18.6	1.8
Housing, Elec., Gas	27.0	10.8	12.2	9.6	11.5	3.0	18.5	19.1	19.6	13.5	19.4	3.4
Electricity charges	4.6	31.4	19.9	22.6	25.6	1.2	3.4	31.4	19.9	22.6	25.6	0.9
Furnish. & H.H equip.	4.1	24.9	38.0	11.9	31.7	1.3	4.1	26.3	38.6	13.7	32.8	1.3
Health	2.3	12.7	18.4	9.7	15.6	0.4	3.5	16.6	19.4	9.0	18.0	0.6
Transport	6.1	53.1	43.9	24.4	48.1	3.3	5.6	57.2	46.0	23.4	51.1	3.0
Motor fuel	2.9	70.5	55.1	37.5	62.0	2.3	2.5	73.4	58.1	37.1	64.9	2.0
Communication	2.4	1.5	6.9	3.2	4.2	0.1	2.0	1.3	2.6	1.0	2.0	0.0
Recreation & culture	1.7	22.9	58.7	8.3	41.2	0.6	1.4	27.8	59.2	9.3	44.0	0.5
Education	4.9	10.6	7.3	4.9	8.9	0.4	2.1	9.9	15.3	4.5	12.6	0.2
Restaurants and hotels	7.4	28.5	38.8	12.7	33.9	2.5	6.2	26.7	33.4	12.3	30.2	1.8
Misc. goods & services	4.8	22.3	36.4	10.4	29.6	1.5	5.0	21.4	36.7	10.9	29.3	1.5
NFNE	53.7	14.1	18.2	8.1	16.2	8.2	42.6	17.4	23.5	9.0	20.6	8.3

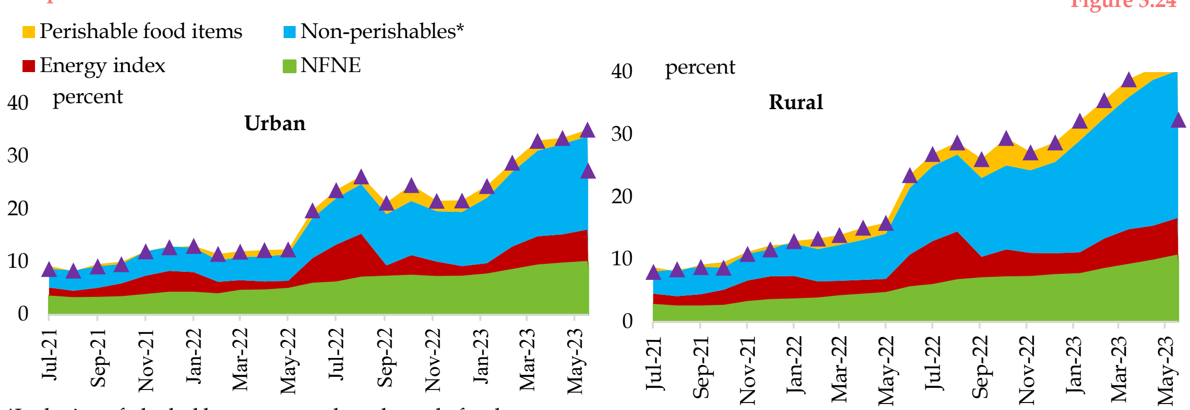
*wt. = weight and Cont.= Contribution for FY23

Sources: Pakistan Bureau of Statistics and SBP calculations

inflation to a multi-year high in FY23. This was despite a notable contraction in domestic demand.

Aside from the impact of supply shocks, upsurge in inflation during FY23 also represented the impact of delayed structural

Composition of CPI Inflation — **Figure 3.24**



*Inclusive of alcohol beverages and readymade food

Sources: Pakistan Bureau of Statistics, and State Bank of Pakistan calculations reforms as well as a large and unsustainable fiscal deficit. Specifically, inflation in energy sector that contributed more than one-tenth to overall inflation during FY23, reflected the impact of chronic inefficiencies in the energy sector.

The broader fiscal consolidation efforts by the government during FY23 for arresting circular debt and increasing revenue, resulted into upward adjustments in administered energy prices on multiple occasions during FY23, despite the downtrend in the global energy prices during the second half of FY23. On the other hand, food inflation that spiked to 39.0 percent in FY23 depicted the impact of supply shortages stemming from floods and constrained availability of imported items as well as multifarious structural impediments in the non-perishable food group (**Box 3.1**).

Supply shortages and weakening Rupee intensified food inflation

Food inflation soared to around three times of the last year's level in both rural and urban areas and contributed more than half to headline NCPI inflation during FY23.[29] Particularly, steady increase in the prices of non-perishable items including milk and its products, wheat, readymade food and edible oil drove the uptrend in food inflation.

Box 3.1: Challenges in Controlling Food Inflation in Pakistan

SBP has increased the policy rate by a cumulative 1500 bps since September 2021, to 22 percent in June 2023, to anchor inflation expectations and to contain seepage of food and energy prices to broader prices in the economy. However, maintaining price stability in the medium to long-term would also require plugging the domestic policy lacunas, inefficiencies and structural issues in several sectors, one of which is the food supply chain. Pakistan's food supply chain is underdeveloped and is vulnerable to global supply shocks through consistent food imports. A breakdown of inflation into its components shows food group alone contributed more than half in headline CPI inflation, while non-perishable food items remained a major driver of food inflation during FY23 (**Figure 3.1.1**).[30]

The break-up of food inflation shows that food grains (wheat, wheat flour, rice and pulses), livestock products (meat and milk), and cooking oil and vegetable ghee remained dominant contributors during the past two decades (**Figure 3.1.2**). Multifaceted factors are responsible for persistent increase in prices of these commodities. These include, among others growing climate change challenges, lack of focus on seed market, livestock sector development and imperfections in the food market.

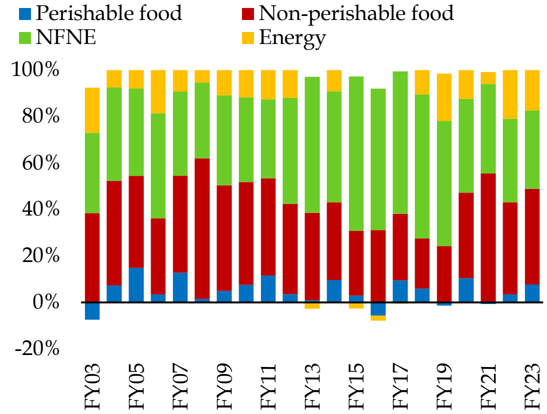
Mitigating structural bottlenecks in development of livestock sector. Surging fresh milk and meat prices contributed over one-quarter to food inflation, due to widening supply-demand gap of livestock products, in the past two decades. Over the years, the rising demand pressures, driven by income levels, shifting consumers' preferences and increasing exports of meat, in the absence of corresponding improvement in supplies have led to a significant increase in prices of milk and meat in the domestic market.

A number of factors have arrested the growth potential of livestock sector in the country. Livestock farming is mostly an informal activity in Pakistan, characterized by sub-optimal animal rearing practices given lack of nutrient-rich feed and poor extension services that have squeezed milk and meat yields below global averages.[31] In addition, overreliance on undeveloped indigenous breeds, high startup and operational cost of dairy business, seasonal fodder shortages, widespread animal diseases, inadequate value chain, and poor pricing mechanism of livestock products

[29] Food inflation surged by 37.6 percent and 41.1 percent in urban and rural baskets during FY23, as opposed to 13.4 percent and 13 percent in FY22 for urban and rural regions, respectively.
[30] Inflation indices in Figure 3.1.1 and 3.1.2 are based on following base years: FY02-08 on base year of FY00, FY09-16 on FY08, and FY17-23 on FY16.
[31] Extension services aim at improving productivity of the agriculture sector by spreading knowhow about efficient agriculture practices through transfer of knowledge.

are some other factors restraining growth potential of livestock products.[32] To close the demand-supply gap of livestock products, there is a need to focus policy efforts on addressing supply chain issues, with special attention on: (i) conducting a livestock census to provide reliable estimates of latest livestock production trends in the country, to help informed decision making; (ii) developing feed industry, to ensure domestic availability of animal feed at affordable prices; (iii) creating awareness about effective means to handle seasonal fodder shortages; (iv) strengthening livestock extension and veterinary services, to increase awareness of livestock farmers about effective animal rearing practices and management of livestock diseases; (v) establishing and maintaining infrastructure for livestock value chain; (vi) revamping marketing system to ensure fair prices; and (vii) policy attention on commercial livestock farming.

Contribution to CPI Inflation — Figure 3.1.1



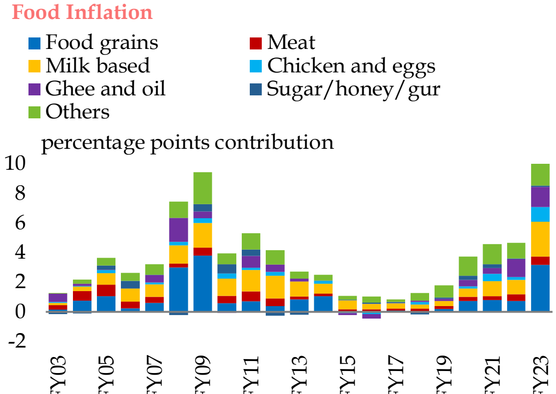
Sources: Pakistan Bureau of Statistics, and State Bank of Pakistan calculations

***Enhancing crop productivity*:** Despite being an agricultural country, Pakistan is not able to adequately meet its domestic food requirement, including wheat and sugar. Similarly, while the country is ranked among one of the large producers of rice, the domestic prices of rice frequently witness double-digit increases. In fact, Pakistan has mostly remained a net importer of food commodities, especially edible oil, pulses, tea – and occasionally sugar and wheat **(Figure 3.1.3)**.

This has increased the country's vulnerability to global price shocks and adverse exchange rate movements. Both these factors have also intensified domestic shortages contributing to food inflation during the last few years.

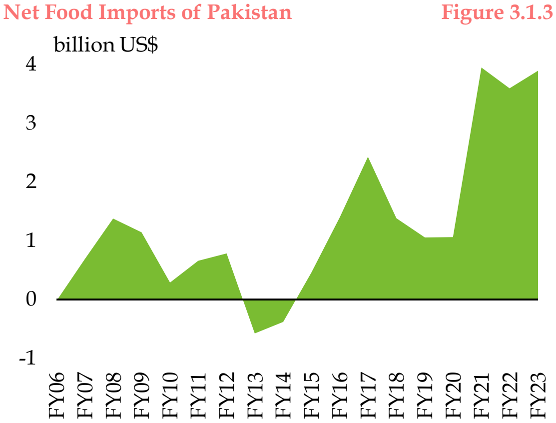
In order to improve crop yields, the government encourages production and use of fertilizers through various incentives, such as provision of subsidized gas to fertilizer manufacturing plants as well as direct price subsidy to farming community. However, falling domestic gas production, sharp increase in international LNG prices, and limited fiscal space have constrained the government's ability to sustain such subsidies.

Drivers of Non-perishable Food Inflation — Figure 3.1.2



Sources: Pakistan Bureau of Statistics, and State Bank of Pakistan calculations

Net Food Imports of Pakistan — Figure 3.1.3



Sources: Pakistan Bureau of Statistics, and State Bank of Pakistan calculations

[32] Sources: (i) S. K. Jafri, S. Z. Hussain, and A. Abbasi (2022). "Analyzing Meat Export Potential in Pakistan", SBP Staff Note 3/22. (ii) M. A. Sattar (2020). "What is Holding Back Milk Production in Pakistan?", PIDE Blog (iii) A. A. Burki and M. A. Khan (2016). "Economic Impact of Dairy Sector in Pakistan: Lessons from the Past to Build a Resilient Future". First Edition. Lahore University of Management Sciences.

Furthermore, such measures do not address the factors underlying low agriculture productivity and market imperfections. Food market imperfections are pervasive at both the pre-harvest and the post-harvest stages. These mainly include: (i) inefficiencies in the seed market in the form of inadequate policy focus on R&D to develop climate change resistant and high yielding crop varieties, unabated proliferation of spurious seeds and ineffective agriculture extension services; (ii) issues in the use of crop nutrients; and (iii) imperfections in food market stemming from information asymmetries, informal trade with neighboring countries, administrative weaknesses across the wholesale and retail chain, and deficient storage facilities.[33] The literature suggests availability of better seeds alone can improve crop yields by around 15-20 percent, while optimal use of other inputs such as fertilizer, pesticides and irrigation, can enhance crop productivity by up to 45 percent.[34]

In order to ensure agriculture sector's preparedness for climate change, the focus should be on resolving structural weaknesses in seed market. In this regard, following aspects are important: (i) strengthening the monitoring, supervision and legal framework to check spread of spurious seeds; (ii) abating financial and human resource constraints of public sector R&D institutions to encourage development of high yielding seed varieties; (iii) leveraging and facilitating foreign investment in seed sector and to incentivize joint partnerships with MNCs; and (iv) proper enforcement of the existing Intellectual Property Right (IPR) regime to encourage domestic and foreign investment for development of new seed varieties.

Another important issue is poor extension services to improve farmers' knowhow about efficient crop management practices that leads to unbalanced use of fertilizer, which have eroded soil quality overtime, limiting the gains from these crop nutrients.[35] This situation warrants upgrading human resource base in extension services departments to ensure sustainability of gains from fertilizer application.

Post-harvest food market inefficiencies include imperfections stemming from information asymmetries, informal trade with neighboring countries, administrative weaknesses across the wholesale & retail chain, and deficient storage facilities.

Facilitating market development for food commodities and buildup of storage facilities in the private sector. The policy efforts should aim at constituting timely information sharing mechanisms about likely demand-supply gap of food commodities based on estimates of consumption and available stocks of the commodities, future price trends, expected weather patterns and timely forecasts of impact of extreme weather events on production size. This information is not only critical for farmers, but also support relevant authorities to manage domestic supplies, in the case of crop failures due to adverse weather conditions. The development of dynamic information systems would, however, require improving human capital base in relevant federal and provincial government agencies, use of latest technologies, such as satellite imaging to monitor crop size, and coordination between various government agencies. In this backdrop, the need for policy attention to address agriculture sector inefficiencies by alleviating market imperfections in the food sector, reforming seed market to ensure wide scale availability and adoption of high yielding, climate-change resistant seed varieties, and development of livestock sector can hardly be over emphasized to attain price stability in the country.

Rising cost of feed spurred increase in milk prices

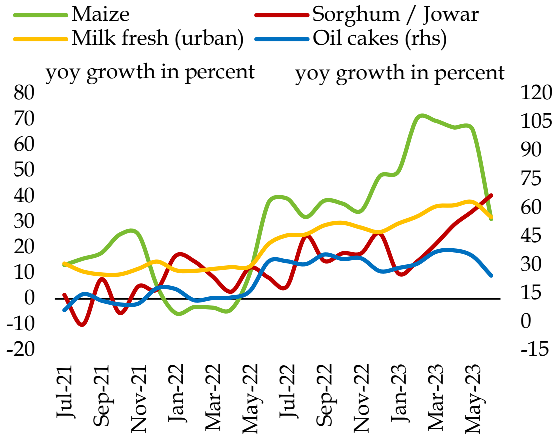
Increase in prices of milk, including fresh milk, milk powder and other dairy products, contributed about 2.4 and 3.3 percentage points to average inflation in urban and rural areas, respectively, during FY23.

[33] Source: (i) S. K. Jafri, M. Imran, and M. H. Asif (2022). "Investigating Pakistan's Seed Industry Dynamics", SBP Staff Note 2/22. (ii) A. Khalid and Sabahat (2020). "Price Stabilization Mechanism in Pakistan's Food Market: Exploring Issues and Potential Challenges", SBP Staff Note 2/20.

[34] (i) A. A. Ali (2016). "Role of seed and its technological innovations in Indian agricultural sector" Bioscience Biotechnology Research Communications, 9(4), 621-624. (www.doi.org/10.21786/bbrc/9.4/8). (ii) S. R. Paroda (2013). "Indian Seed Sector: The Way Forward", Lecture, Indian Seed Congress, Gurgaon, Haryana. (www.nsai.co.in/storage/app/media/Dr.%20Raj%20Paroda%20Lectures%20-%20NSAI_13-2- 2013_Corrected.pd)

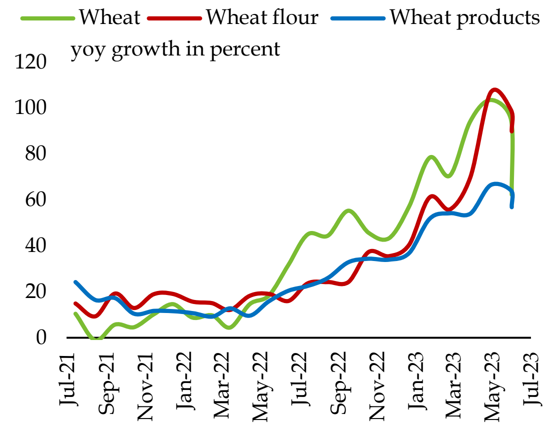
[35] M. Ali, F. Ahmed, H. Channa, and S. Davies (2016). "Pakistan's Fertilizer Sector Structure, Policies, Performance and Impacts." International Food Policy Research Institute, Discussion Paper, 01516.

Livestock Feed Prices **Figure 3.25**



Source: Pakistan Bureau of Statistics

Price Trends in Wheat and Wheat-based Products (Urban) **Figure 3.26**



Source: Pakistan Bureau of Statistics

One of the main reasons was a surge in cost of livestock feed such as maize and oil cakes, due to flood-related supply shortages **(Figure 3.25)**. Moreover, floods resulted in loss of a significant number of animals and disrupted road networks, particularly within Sindh and Balochistan.[36] Furthermore, increase in transportation and labor costs on account of hike in oil prices also added to milk prices.[37]

Supply shortages impacted wheat prices

Wheat flour prices in urban and rural areas shot up by 56.7 percent and 52.8 percent in FY23, as opposed to 16.0 percent and 15.9 percent in the preceding year. Wheat prices were already on the rise since start of FY22 due to decline in wheat production and rising international wheat prices on account of Russia Ukraine war. The post-flood shortages as well as increase in minimum support price (MSP) catalyzed the rise in wheat prices FY23 **(Figure 3.26)**.[38]

Importantly, floods not only damaged the wheat storage facilities of both the government and the rural community, the concerns about delay in drainage of standing water from fields caused doubts about the wheat outlook for the upcoming year as well. [39] Additionally, there was approximately half a million ton of export to Afghanistan through unofficial trade.[40] To allay concerns over supply situation, the country increased wheat imports to 2.7 million tons during FY23, compared to 2.2 million tons last year. However, the rising prices in international market partly neutralized the impact of improvement in supplies.

Moreover, provincial governments of Sindh and Punjab announced a sizeable increase in MSP of wheat from Rs 2,200 per 40kg to Rs 4,000 and Rs 3,900 per 40kg respectively for the crop year of 2023-24.[41] This decision further strengthened the increase in prices. Specifically, rising concerns over supply situation exacerbated the uptrend in

[36] Ministry of Planning Development & Special Initiative (2022). *Pakistan Floods 2022 Post-Disaster Needs Assessment*. Islamabad: MoPDSI

[37] Pakistan Dairy Association, Press Release No. DSA\PDA\PM\020 Dated 11th February 2021 (available at: www.pda.com.pk/2021/02/19/letter-to-the-pm/ accessed on August 11, 2023.

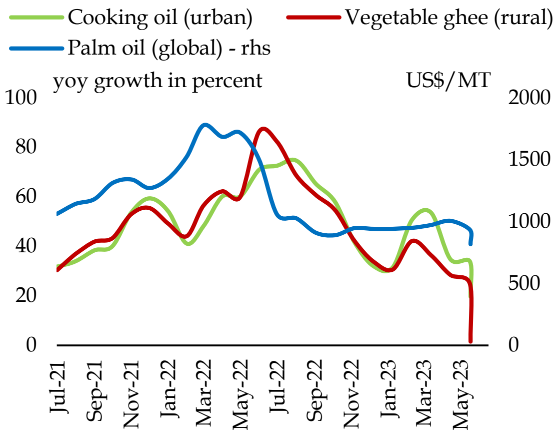
[38] FAO (2022). *GIEWS Special Report*. No. 351. Rome: FAO

[39] Farmers store approximately 60 percent of their wheat production the purpose of personal consumption and seed for the next season. Source: USDA (2020). *United States Department of Agriculture Grain and Feed Report, April 2020.* Islamabad: USDA

[40] USDA (2023). *Grains and Feed Update June 2023*. Report Number: PK2020-0022 Islamabad: USDA.

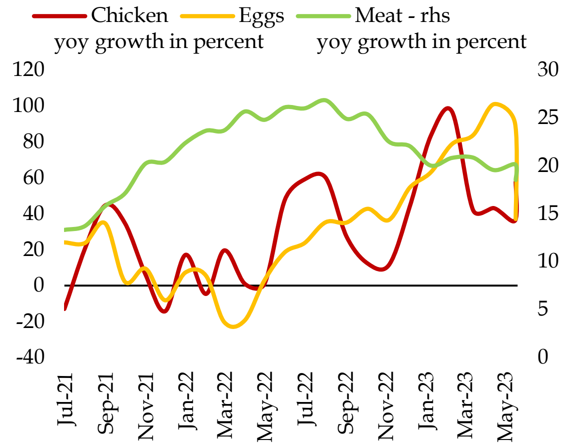
[41] Space and Upper Atmosphere Research Commission (2022). *PAK-SCMS Bulletin*. Volume XII, Issue 03, Serial No. 135 1-March 2022 and Space and Upper Atmosphere Research Commission (2023) Volume XII, Issue 12, Serial No. 144 1-December 2022. Karachi: SUPARCO; DG Public Relations, Government of Punjab (dgpr.punjab.gov.pk/node/16960#:~:text=The%20spokesperson%20of%20Food%20Department,on%20that%20fixed%20support%20price, accessed on August 18, 2023)

Prices of Edible Oils **Figure 3.27**



Sources: State Bank of Pakistan and World Bank

Poultry and Meat Prices (Urban) **Figure 3.28**



Source: Pakistan Bureau of Statistics

prices of wheat and its flour during the second half of the year **(Figure 3.26).**

Rupee depreciation mainly explains rising edible oil prices

Edible oil was one of the major contributors to food inflation in both urban and rural areas, explaining around one-tenth of overall food inflation during FY23.[42] However, the pace of increase in edible oil prices slightly eased, especially during the second half of FY23 in both urban and rural baskets **(Figure 3.27)**. The decline in international palm oil prices primarily drove this trend.

However, despite an average 32.4 percent dip in international palm oil price in FY23, domestic edible oil prices remained high mainly due to weak local currency and some delays in the clearance of imports. In addition, a general increase in cost of production amid elevated energy prices, also contributed to higher domestic edible oil prices in FY23.

High input costs kept inflation in the readymade food elevated

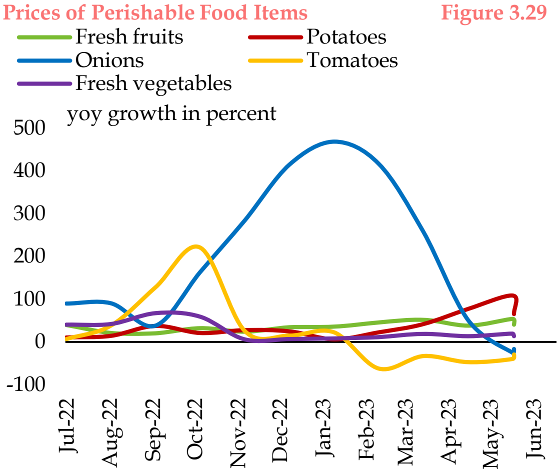
Increase in prices of edible oil, wheat, rice, poultry, and meat, which are major components of readymade foods, mainly drove up the readymade food prices by 37.0 percent and 33.6 percent in FY23, in urban and rural areas, compared to 13.7 percent and 14.1 percent rise in FY22.

Rice prices, witnessed a steep increase of 59.7 percent in urban areas in FY23, as compared to 11.1 percent in FY22. This surge mainly came from 21.0 percent dip in rice production due to floods in FY23. Similarly, the prices of poultry and meat rose significantly over last year **(Figure 3.28)**. This can partly be attributed to damages caused by floods, which not only affected the animal population but also disrupted transportation routes.[43] Another contributing factor was issues in soybean imports that led to increased feed prices and subsequently higher chicken and egg prices.[44]

Similarly, rising operational cost of the sector further strengthened the price increase in readymade food. Due to the limited availability of natural gas, particularly during the winter season, liquefied gas is commonly used for cooking by homes and restaurants. Since LPG and LNG are mostly imported inputs, the movement in exchange rate and substantial

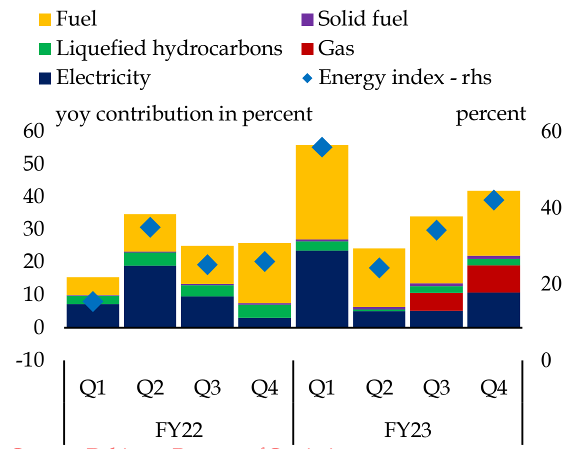
[42] Edible oil, including, constituted 1.4 percent and 1.9 percent of total urban and rural inflation, respectively. Especially, the share of cooking oil and vegetable ghee accounted for 3.6 and 4.1 percent, respectively in urban and rural food inflation.
[43] Ministry of Finance (2022-23). *Pakistan Economic Survey*. Islamabad: MoF.
[44] Source: USDA, Foreign Agricultural Service, Pakistan: Food and Agricultural Import Regulations and Standards Country Report

Prices of Perishable Food Items Figure 3.29



Source: Pakistan Bureau of Statistics

Breakdown of Energy Inflation - Urban Figure 3.30



Source: Pakistan Bureau of Statistics

increase in gas prices internationally during FY23 increased domestic prices of these items.

Floods also had a significant impact on the prices of perishable food items

The prices of perishable food items in urban area rose by 41.8 percent during FY23, compared to 7.5 percent rise in FY22. This surge mainly came from a steep increase in the prices of onions, particularly during Oct-Jan FY23 due to both reduced cultivation area and extensive flood-related damages in Sindh and Balochistan (**Figure 3.29**).[45]

To counter the shortages, onion imports that increased to 617.1 million kg (US$ 176 million) during Jul-Feb FY23, from 134.2 million kg (US$ 22 million) in the same period last year helped to ease onion prices from January 2023 onwards.

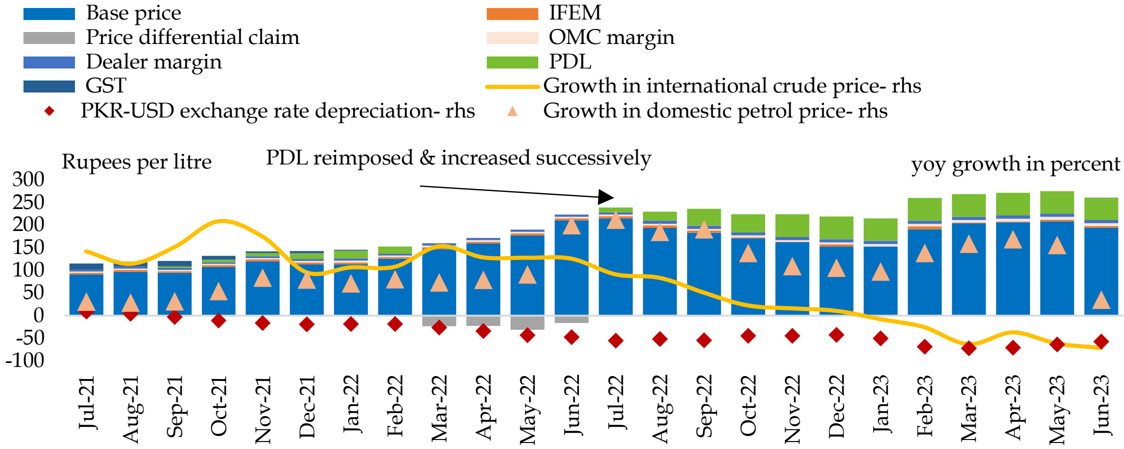
Energy inflation

Energy inflation spiked to 38.4 percent and 39.1 percent in urban and rural areas in FY23, accelerating from the previous year's 25.3 percent and 24.8 percent, respectively. Detailed data shows that the surge in energy inflation was primarily contributed by motor fuel and electricity charges, followed by gas (**Figure 3.30**).[46] In addition to elevated level of global prices of crude and LNG, the rise in energy inflation also manifested the impact of perennial structural issues in the energy sector that has led to accumulation of a huge circular debt stock. A significant part of increase in electricity tariffs is meant to stem the flow of circular debt. Likewise, to boost revenue collection, the government re-imposed petroleum development levy (PDL) on transport fuels from July 2022.

The contribution from motor fuels remained consistently higher throughout the year on account of various factors. First, the international price of crude oil remained elevated in the first half of FY23, before starting a downtrend in the second half (**Figure 3.31**). Second, relatively weak currency outweighed the gains from decline in international oil prices (**Figure 3.31**). Third, the government allowed hikes in margins of dealers in August 2022, and twice of OMCs in December 2022 and January 2023, which further added momentum in fuel

[45] The production of onions declined to around 1.7 thousand tonnes in FY23 from 2.1 million tonnes in last year. In addition, the cultivation area of the crop also shrank to 128 thousand hectares in FY23 from 141 thousand hectares. Source: Pakistan Bureau of Statistics
[46] In case of rural areas, solid fuel had notable contribution to energy inflation, given its vast use during gas shortages in most of the rural regions in the country.

Composition of Petrol Prices; Impact of International Crude Prices and PKR Depreciation Figure 3.31



Source: Oil and Gas Regulatory Authority

price increase.[47] Fourth, in a bid to bolster non-tax revenue, the government re-imposed PDL on transport fuels from July 2022. The levy on petrol and diesel was increased to Rs 50 per liter by November 2022 and April 2023, respectively.[48]

Another major contributor to energy inflation was electricity charges during FY23.[49] Annual rebasing, quarterly adjustments, and monthly Fuel Charge Adjustments (FCAs) were imposed to align power tariffs with the cost recovery, so as to slow down buildup of circular debt. However, during FY23, these adjustments also carried the impact of delayed revisions for FY22 on account of annual rebasing and quarterly adjustments. A total annual rebasing of Rs 7.91 per KWh for FY22 and FY23 was introduced in three stages during Jul-Oct FY23. The quarterly adjustments for FY22 started in June 2022, which were followed by timely adjustments for the first two quarters of FY23 (**Table 3.9**).[50]

FCAs augmented the electricity prices, especially in the first quarter of FY23 (**Figure 3.32**). Source-wise power generation data shows that the cumulative gas and coal-based generation had a sizeable share in the overall power generation (**Figure 3.33a**).[51] Furnace oil was also used in the fuel mix, particularly in the last quarter of FY22, amidst its falling but still elevated price (**Figure 3.33b**), which translated into higher FCAs in FY23.

However, with international energy prices receding, and a relief package offered to consumers in September 2022, FCAs turned almost negligible as the year progressed. Also, with government having already introduced substantial annual and quarterly tariff adjustments in Q1-FY23, contribution of electricity charges to energy inflation remained muted in the second and third quarters of FY23.

Nonetheless, the last quarter witnessed a hike in contribution by electricity charges to energy inflation. The hike came in contrast to same period last year, when government froze electricity prices by providing subsidy to protect consumers from the sharp upsurge in

[47] Average monthly dealer margins was increased from Rs 3.4 per liter in FY22 to Rs 4.4 per litre in FY23.

[48] Average monthly PDL on petrol was up from Rs 5.5 per liter in FY22 to Rs 42.3 per liter in FY23. Similarly, average monthly levy on diesel was Rs 3.9 per liter in FY22, which increased to Rs 30.1 per liter in FY23. Data sources: Oil & Gas Regulatory Authority & Pakistan State Oil

[49] Annual rebasing and quarterly adjustments are done on account of capacity charges, transmission charges and market operator fee; variable operation & maintenance charges; and impact of transmission and distribution losses on FCA. Whereas, FCA is meant to cover variable cost of fuels used to generate power. Source: NEPRA

[50] Quarterly tariff adjustments usually apply for 2-4 months from the date of enforcement.

[51] Between Q4-FY22 and Q4-FY23, the cumulative share of gas and coal-based generation stood at nearly half of the total.

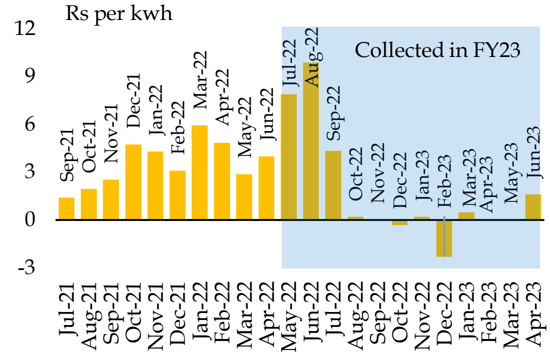
Annual Rebasing and Quarterly Adjustments in Electricity Tariffs — Table 3.9

Cumulative Annual Rebasing for FY22 & FY23		
Stage	**Unit (Rs per KWh)**	**w.e.f**
First stage	3.5	July 25th 2022
Second stage	3.5	August 1st 2022
Third stage	0.91	October 1st 2022
Total	**7.91**	
Quarterly Tariff Adjustments (for Residential Consumers)		
Quarter	**Unit (Rs per KWh)**	**w.e.f**
Q1-FY22	0.57	June 1st 2022
Q2-FY22	1.55	July 1st 2022
Q3-FY22	0.51	September 1st 2022
Q4-FY22	1.49 to 3.21	October 1st 2022
Q1-FY23	1.49 to 3.21	February 1st 2023
Q2-FY23	0.5	April 1st 2023

Note: 1) Quarterly adjustments usually apply for 2 to 4 months from the date of enforcement; 2) Quarterly adjustments for Q3 and Q4 of FY23 to be determined & collected in FY24
Sources: IMF & NEPRA

international energy prices in the wake of the Russia-Ukraine conflict. Besides, the government had deferred part of FCAs for the months of August and September 2022 to provide partial relief to consumers during floods. The deferred FCAs were to be collected in 8 months – March 2023 to October 2023

Fuel Charge Adjustment (FCA) — Figure 3.32

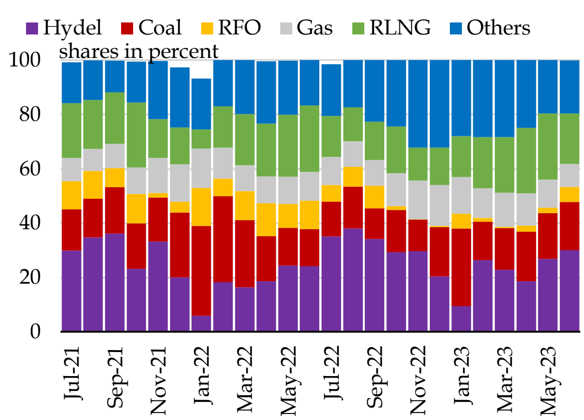


Note: x-axis indicates months for which FCA was charged; indicative months around the bars are months in which FCA was actually billed. FCA is collected with a one-month lag.
Source: National Electric Power Regulatory Authority

(**Table 3.10**), which pushed up electricity prices in last quarter of FY23.

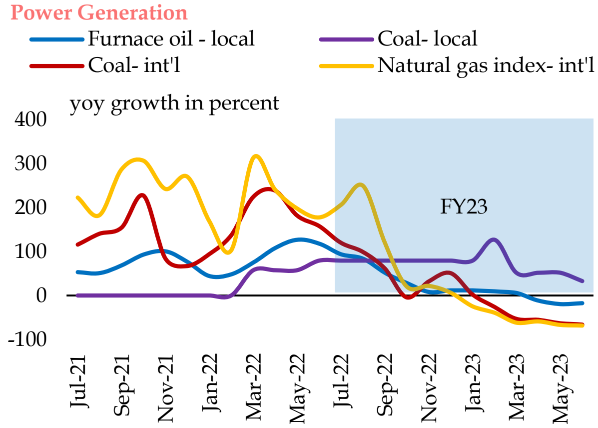
Besides motor fuel and electricity, gas charges were increased in the second half of FY23 (**Figure 3.30**).[52] Two new slabs were added to domestic sector consumption in the unprotected category. Depending on the slab, government raised gas prices from 33.0 percent to 112.0 percent, averaging 64 percent.[53] Besides, there was also a hike of around 29 percent in gas prices for commercial and export-oriented establishments (for gas used in captive power generation).[54]

Power Generation by Source — Figure 3.33a



Source: National Electric Power Regulatory Authority

Price Trend of Fuels Used in Power Generation — Figure 3.33b



Sources: Pakistan Bureau of Statistics and Haver Analytics

[52] Source: OGRA notification dated February 15, 2023, effective from January 01, 2023
[53] This information is calculated for comparable slabs in the new and previous notifications only. Source: OGRA
[54] In absolute terms, commercial tariffs increased from Rs 1,283 to Rs 1,650 per MMBTU, and exported-oriented tariffs, from Rs 852 to Rs 1,100 per MMBTU. Source: OGRA

Recovery of Deferred FCAs from August-September Bills - XWDISCOs — **Table 3.10**

Rupees per KWh

	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
Protected (=<200 units)	2.00	2.00	1.50	0.95	0.89	1.00	1.00	1.00	**10.34**
Non-protected (=<200 units)	2.75	2.75	2.25	0.95	0.79	1.50	1.75	1.50	**14.24**
Non-protected (201-300 units)	2.75	2.75	2.25	0.95	0.79	1.50	1.75	1.50	**14.24**
Private Agricultural	3.00	2.00	0.50	0.50	0.50	0.90	1.50	1.00	**9.90**

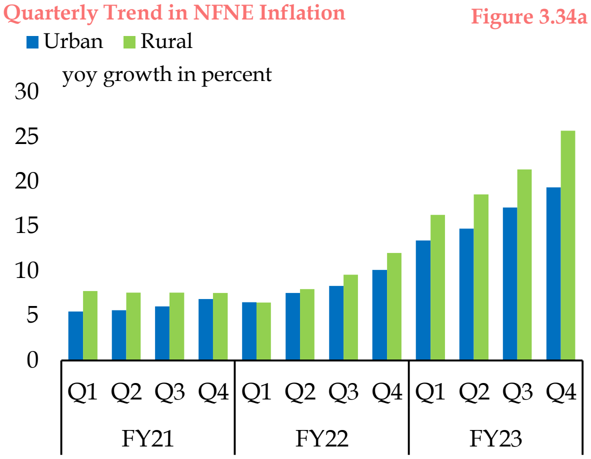
Source: National Electric Power Regulatory Authority

Second round effects of multiple supply shocks and elevated inflation expectations drove core inflation

Core inflation doubled in both the urban and rural baskets in FY23 compared to the previous year, reaching multi-years' high of 16.2 and 20.6 percent, respectively.[55] Elevated prices of core goods mainly underpinned this increase, followed by services and house rent. Quarterly data show that core inflation gathered pace as the year progressed, both on year-on-year and quarter-on-quarter basis (**Figure 3.34a**). Furthermore, core inflation in rural areas remained higher than urban areas throughout FY23.[56] As shown in **Figure 3.34b**, increase in core inflation was quite broad-based. Top contributors of NFNE inflation were house rent, articles for personal care[57], washing soap/detergents, cotton cloth, transport services, education, marriage hall charges, personal effects[58], and text books, among others (**Figure 3.35**).

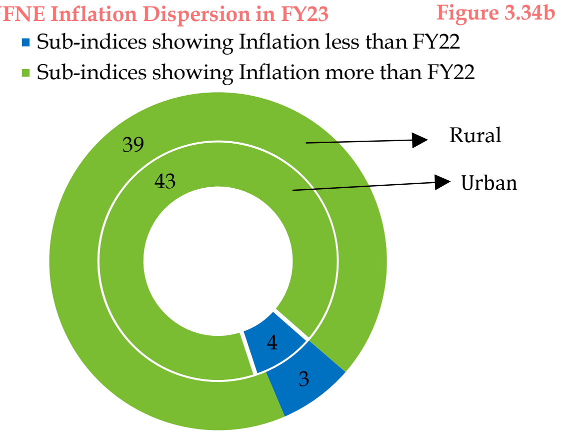
The steady increase in core inflation was despite a notable slack in domestic demand during FY23. The demand management measures introduced since the previous year, including a cumulative 1500 bps increase in the policy rate since September 2021, flood-induced damages to

Quarterly Trend in NFNE Inflation — **Figure 3.34a**



Source: Pakistan Bureau of Statistics

NFNE Inflation Dispersion in FY23 — **Figure 3.34b**



Sources: Pakistan Buraeu of Statistics, and State Bank of Pakistan calculations

[55] This is the highest level of core inflation recorded since FY16, when PBS first introduced separate inflation indices for urban and rural areas.

[56] Rural inflation exceeded urban inflation primarily because of different spending patterns of households in both baskets. For example, rural households spend more on transport services and less on house rents than their urban counterparts. With transport services inflation at record highs, it has hit rural areas harder than urban areas. Moreover, cost of transporting goods from urban centers to rural areas has also gone up. This explains the relatively higher inflation in rural and urban areas for similar goods. For instance: cotton cloth, drugs and medicines, text books, among others.

[57] Articles for personal care include: soap, tooth paste/brush, hair color, hair removing cream, shaving cream and blade, disposable razor, shampoo, lipstick, nail polish, perfume, face cream, talcum powder, hair oil, tissue paper (perfumed), and pampers

[58] Personal effects include: gold 24 carat, silver 24 carat, wall clock, artificial jewelry, suitcases & trunks, ladies purse

Top Contributors to NFNE Inflation (Urban) in FY23 — Figure 3.35

YoY growth in percent

	wt.	Contribution to CPI Inflation	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
House rent	19.3	0.9	5.6	5.6	5.6	5.3	5.3	5.3	5.4	5.4	5.4	5.3	5.3	5.3
			Top Contributors in Goods											
Goods	18.2	4.9	16.5	20.5	21.9	22.9	23.1	23.9	25.2	28.7	33.2	35.7	37.1	34.6
Appliances/Articles/Products for personal care	3.0	0.8	15.8	19.6	22.1	23.8	24.3	25.7	26.7	31.8	34.3	38.7	40.1	38.4
Washing soap/detergents/match box	1.4	0.7	24.7	28.9	37.7	41.5	43.4	46.6	47.0	51.6	57.2	60.4	63.7	62.0
Cotton cloth	2.2	0.6	18.1	23.5	23.7	24.2	22.2	21.4	20.7	18.8	32.7	31.5	31.5	28.4
Personal effects n.e.c.	0.9	0.4	18.2	21.2	22.8	19.2	19.3	24.9	32.6	38.6	36.8	44.8	53.3	45.5
Text books	0.7	0.3	8.7	20.0	17.2	20.6	20.5	59.2	71.3	74.1	74.0	106.8	114.0	114.0
Motor vehicles	0.8	0.3	24.0	38.4	34.9	34.3	28.2	27.5	28.0	38.8	45.5	41.5	38.0	36.6
			Top Contributors in Services											
Services	16.3	2.3	14.3	15.6	15.9	16.8	15.4	14.6	15.4	16.8	16.2	16.2	15.9	13.5
Transport services	1.7	0.5	39.7	44.6	42.4	41.3	33.4	28.4	30.0	33.1	30.6	28.8	24.1	12.5
Education	4.9	0.4	10.5	10.1	10.0	11.1	11.1	10.8	10.4	10.4	5.8	6.0	5.7	5.9
Marriage hall charges	1.8	0.4	21.7	24.2	24.3	24.5	18.8	17.0	19.9	25.5	32.3	32.9	33.4	25.3
Personal grooming services	0.8	0.2	18.2	20.6	27.5	30.8	29.5	29.1	31.7	31.1	31.0	31.9	37.5	34.7
Tailoring	1.1	0.2	12.4	17.1	17.4	17.8	17.6	17.4	18.7	23.6	24.3	21.2	19.7	19.0
Household servant	0.8	0.1	13.3	14.3	15.1	20.1	20.6	20.5	19.5	17.2	18.4	18.7	18.5	17.1
NFNE Inflation	53.7	8.2	12.0	13.8	14.4	14.9	14.6	14.7	15.4	17.1	18.6	19.5	20.0	18.5

Note: 1) This heat map is extracted from one drawn for all 47 sub-indices of core inflation, which are sorted by contribution to growth in overall inflation in FY23 in the descending order. 2) Red= highest, Green= lowest

Sources: Pakistan Bureau of Statistics, and State Bank of Pakistan calculations

economic activities, and squeezed real incomes of households, have considerably slowed domestic demand during FY23.

Growth in households' real final consumption expenditure is estimated to have decelerated significantly to 1.7 percent during FY23, from 6.8 percent last year **(Figure 3.36)**. Similarly, the domestic sales of various high frequency demand indicators slumped during the year **(Figure 3.37)**.

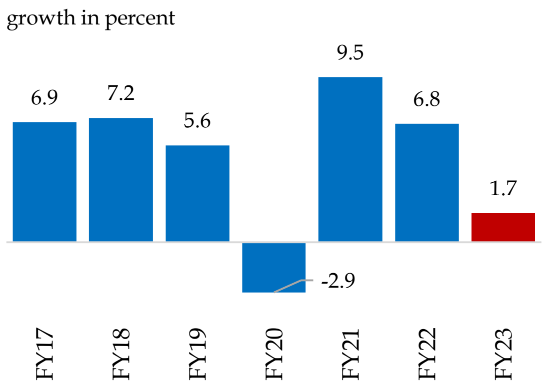
The surge in core inflation, notwithstanding the visible contraction in domestic demand, largely reflects the pass- through of exchange rate depreciation and the second round effects of energy and food prices that spilled over to broader prices and wages (**Figure 3.38a**). High food and energy inflation dampened real incomes of labor, which pushed wage inflation during the year. Escalating sharply in FY23, low-end wages rose by 21.2 percent, about thrice the average 7.6 percent increase observed during previous five-year.[59] The federal and provincial governments also raised minimum wages, which partly contributed in wage inflation in FY23.[60]

In addition, supply shortages of non-essential imported goods as well as PKR depreciation added to price pressures by increasing the cost of imported raw materials and intermediate goods for manufacturing (**Figure 3.38b**), while outweighing the impact of softening global commodity prices, and anemic import demand (**Chapter 6 – External**). Furthermore, revenue mobilization measures introduced in February 2023 through the Finance (Supplementary) Act 2023, including increase in GST rate from 17 percent to 18 percent, and advance tax of 10 percent on functions and gatherings arranged in marriage halls, marquees, hotels, restaurants, or any other place used for such purpose also fueled price increase of goods and services.

[59] Low-end wages include charges/wages for tailoring, household servant, cleaning and laundering, construction worker, garbage collection, dental services, doctor fee, mechanical services, and personal grooming services.

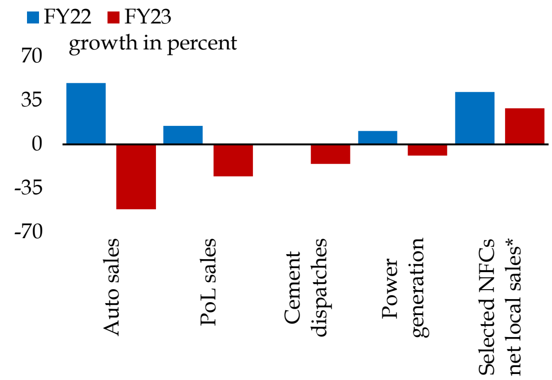
[60] The federal government had increased the minimum wage rate from Rs 17,500 to Rs 20,000 in FY22. In FY23, the provinces raised the minimum wage rates to Rs 25,000 per month. Source: Employers Federation of Pakistan (www.efp.org.pk/minimum-notifications/page/2/)

Households Final Consumption Expenditure **Figure 3.36**



Source: Pakistan Bureau of Statistics

Slowdown in Demand Side Indicators **Figure 3.37**

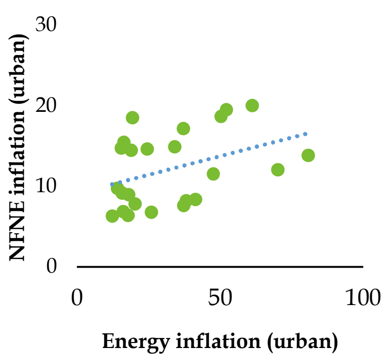


*Jul-Mar, NFC stands for Non-financial companies

Sources: SBP Quarterly Financial Statements Analysis Mar-2023, NEPRA, APCMA, OGRA, PAMA

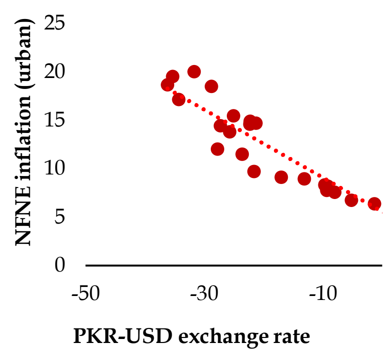
Lastly, increasing inflation expectations reinforced the uptrend in underlying inflationary pressures, as consumers and firms incorporated these into wages and prices (**Figure 3.38c**). Literature suggests that consumers' and businesses' inflation expectations mainly track the trend in energy inflation. In addition, the current and expected course of food and non-energy prices, employment level and interest rates also weigh on consumers' inflation expectations.[61] Global commodity price outlook, monetary policy decisions and exchange rate movements are other factors that influence consumers' inflation expectations.

Interaction of Energy Inflation with NFNE Inflation **Figure 3.38a**



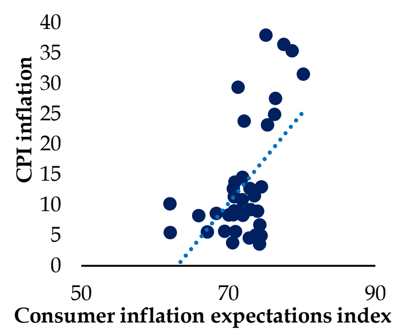
Note: YoY growth for monthly data during Jul 2021-Jun 2023

Interaction of Exchange Rate with NFNE Inflation **Figure 3.38b**



Note: YoY growth for monthly data during Jul 2021-Jun 2023

CPI Inflation Influenced by Consumer Inflation Expectations **Figure 3.38c**



Data used here ranges from Jul-2017 to Jun-2023, corresponding to months in which Consumer Confidence Surveys were conducted

Sources: Pakistan Bureau of Statistics and State Bank of Pakistan

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[61] H. Abbas, S. Beg, and M. A. Choudhary (2015). "Inflation Expectations and Economic Perceptions in a Developing Country Setting", available at: (www.sbp.org.pk/ccs/paper.pdf) (ii) R. Moessner (2022). "Determinants of Inflation Expectations in the Euro Area", Intereconomics: Review of European Economic Policy, 57(2), 99-102. (iii) M. D. Patra, and P Ray (2010). "Inflation Expectations and Monetary Policy in India: An Empirical Exploration", International Monetary Fund.