

The State of Pakistan's Economy

HALF YEAR
REPORT
of the Board of Directors

2022-23



STATE BANK OF PAKISTAN

**HALF YEAR REPORT
2022 - 23**

**THE STATE OF PAKISTAN'S
ECONOMY**



STATE BANK OF PAKISTAN

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LETTER OF TRANSMITTAL

State Bank of Pakistan
Karachi.
May 19, 2023

Dear Mr. Chairman,

In terms of Section 39(2) of the State Bank of Pakistan Act, 1956, the Half Year Report of the Board of Directors of the State Bank of Pakistan on the State of the Economy for the year 2022-23 is hereby enclosed for submission to the Majlis-e-Shoora (Parliament).

With warm regards,

Yours sincerely,



(Jameel Ahmad)

Governor

Chairperson, Board of Directors

Muhammad Sadiq Sanjrani
Chairman
Senate
Islamabad

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Governor

Chairperson, Board of Directors

Raja Pervaiz Ashraf
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Islamabad

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The analysis and projections in this report were prepared on data outturns for the July-December period of FY23 and finalized in March 2023, using data and developments as of then.

1.1 Overview

Pakistan's macroeconomic conditions deteriorated during H1-FY23. The policy measures introduced since last year had succeeded in constraining domestic demand. However, the fallout of flash floods, adverse global economic conditions, uncertainty surrounding the completion of IMF program's 9th review, the foreign exchange constraints, and political instability exacerbated the underlying domestic structural issues posing challenges to macroeconomic stability.

During H1-FY23, both agriculture production and Large scale manufacturing (LSM) contracted substantially; whereas, headline inflation rose to multi-decade high level. Despite policy induced improvement in external current account (on the back of curtailment in imports) and primary fiscal balance (due to rationalization of non-interest current spending and decline in federal development spending), external financing and low level of FX reserves remained as major concerns (**Table 1.1**). However, slowdown in external demand as well as persistence of domestic structural issues pulled exports below last year's level. Moreover, the below target growth in FBR taxes also indicate the need to speed up the structural reforms.

Continuing with its contractionary stance, SBP raised the policy rate by a further 225 bps in H1-FY23, on top of the 675 bps increase during FY22. On the fiscal side, the government resorted to curtail federal expenditures on grants, subsidies and development. Furthermore, to contain pressures on external account the government and the SBP introduced various regulatory measures to restrict imports.

Selected Economic Indicators Table 1.1

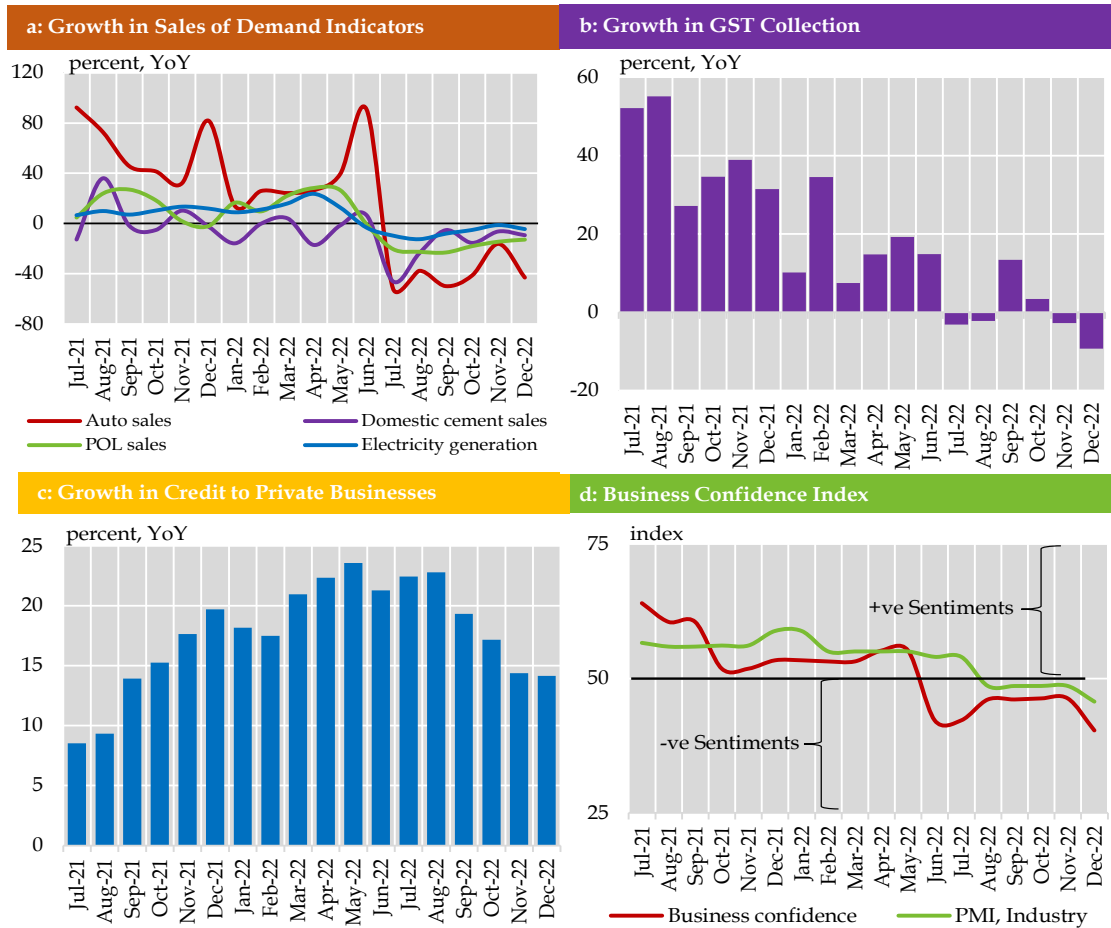
	FY22		FY23	
	H1	Q1	Q2	H1
<i>Growth rate (percent)</i>				
LSM ^a	7.7	-1.5	-5.7	-3.7
National CPI ^a	9.8	25.1	24.9	25.0
Private sector credit ^b	13.7	0.9	3.3	4.3
Money supply (M2) ^b	4.3	1.2	0.03	1.2
Exports ^b	29.0	2.6	-15.2	-6.7
Imports ^b	51.8	-5.8	-29.8	-18.2
Exchange rate app (+)/dep(-) ^b	-3.5	-26.7	-21.7	-24.1
FBR tax revenue ^c	32.1	16.9	17.9	17.4
Policy rate (end period) ^b	9.75	15	16	16
<i>billion US\$</i>				
Remittances ^b	15.8	7.7	6.4	14.1
FDI in Pakistan ^b	1.1	0.3	0.2	0.5
FX loans (net) ^b	9.8	0.1	-0.9	-0.9
Current account balance ^b	-9.1	-2.4	-1.1	-3.6
Change in SBP reserves ^b	1.6	-2.0	-2.3	-4.2
<i>percent of GDP</i>				
Fiscal balance ^c	-2.0	-1.0	-1.0	-2.0
Primary balance ^c	0.1	0.2	0.9	1.1

Sources: ^a Pakistan Bureau of Statistics; ^b State Bank of Pakistan; ^c Ministry of Finance

In addition to policy induced compression in domestic demand, flash floods also played a significant role in overall economic downturn. The floods submerged a substantial area of country's land, and inflicted heavy losses to lives, livelihood and infrastructure. In agriculture, *Kharif* crops sustained considerable production losses due to floods. Low fertilizer offtake, on account of higher prices in global markets, further aggravated the situation. As per ministry of National Food Security and Research (MNFS&R) estimates, cotton and rice

High Frequency Economic Indicators

Figure 1.1



Sources: SBP, APCMA, PAMA, OCAC, NEPRA & FBR

production witnessed a decline of 24.6 and 40 percent respectively. The below par performance of agriculture and industry, indicate subdued activity in services sector as well.

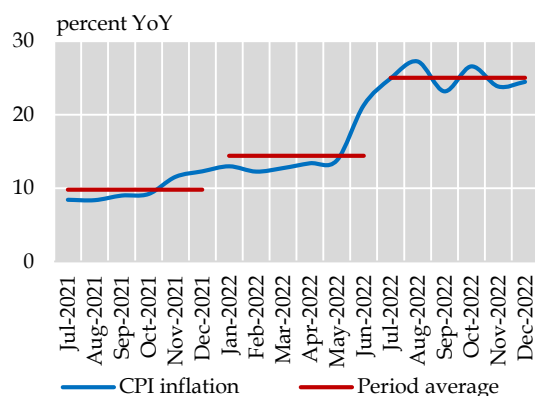
In manufacturing, LSM witnessed a broad-based contraction, where output fell in 18 out of 22 sectors. In particular, production of textile, automobile, pharmaceutical, non-metallic minerals, petroleum, and construction-allied sectors dipped significantly. Furthermore, the worsening

macroeconomic environment led some businesses to partially suspend operations during the period. In line with the overall downturn in economic activity, the labor markets also showed contraction in employment generation.

Also, high frequency indicators showed a downturn in general economic activities during H1-FY23 (Figure 1.1). In particular POL, cement and automobile sales posted double digit declines. The GST collection

National CPI Inflation

Figure 1.2a



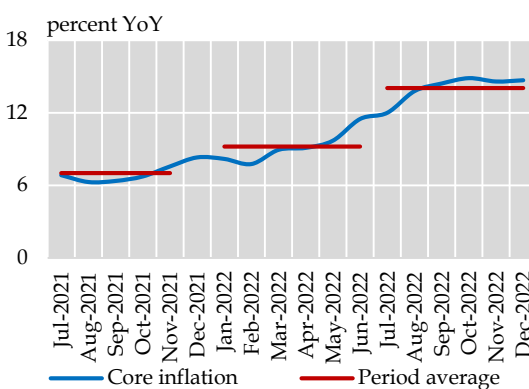
Source: Pakistan Bureau of Statistics

also slowed down in line with weakening economic activity. The deterioration in macroeconomic environment affected business confidence in H1-FY23, which also contributed to sluggish offtake in credit to private businesses.

Despite visible contraction in domestic demand, inflation outturns have remained stubbornly persistent since H2-FY22 (**Figure 1.2a**). Elevated inflation expectations along with a range of domestic supply side factors pushed the national CPI (NCPI) inflation to 25.0 percent during H1-FY23 as compared to 9.8 percent in the same period last year. Higher food prices mainly drove overall inflation followed by NFNE and energy groups (**Figure 1.2b**). Particularly, flood induced losses to agriculture produce and livestock caused supply shortages in the food group and exacerbated the impact of high global commodity prices. In addition, the pass-through of PKR depreciation to domestic prices also contributed to inflationary pressures. Similarly, the increase in power tariffs and energy prices provided further impetus to inflationary pressures during H1-FY23.

Non-Food Non-Energy (Core) Inflation - Urban

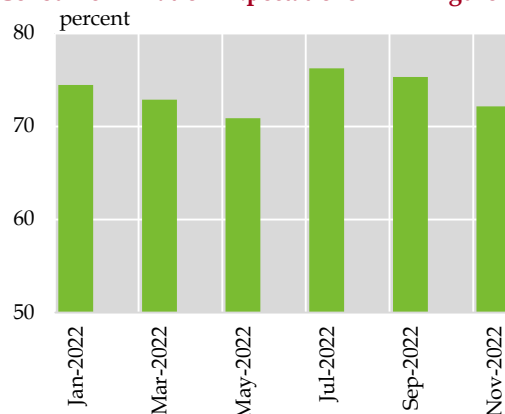
Figure 1.2b



The second round effect of these supply shocks to broader prices and wages along with rising inflation expectations pushed core inflation to a nine-year high level in H1-FY23. Importantly, consumer inflation expectations continued to creep up and remained at an elevated level during H1-FY23, as shown by SBP-IBA Consumer Confidence Survey (CCS) (**Figure 1.3**). A persistent uptrend in domestic prices amid supply shocks, adverse global commodity price outlook, and exchange rate pressures led to worsening of inflation expectations during H1-FY23.

Consumer Inflation Expectations

Figure 1.3



Source: State Bank of Pakistan

In the fiscal sector, contraction in major non-interest current expenditure, particularly subsidies, grants, and development spending, contributed to improvement in primary surplus during H1-FY23. However, fiscal deficit remained at last year's level, in terms of GDP, because of a sharp expansion in interest payments. Rising interest rates, depreciation in PKR and resumption of mark-up payments to foreign creditors after end of the DSSI were instrumental in driving growth in interest payments during H1-FY23. On the revenues side, tax administration efforts, inflation and higher return on deposits led to an expansion in FBR taxes. However, a sharp contraction in imports and an overall dip in economic activity constrained tax collection below the target for the first half of FY23.

In the absence of sufficient external inflows, the government mainly relied on domestic bank and non-bank sources to meet its borrowing requirements. Specifically, the government fulfilled its financing requirements mostly through medium term floating rate instruments. While the lengthening of debt profile through these floating rate bonds reduced the rollover risk,

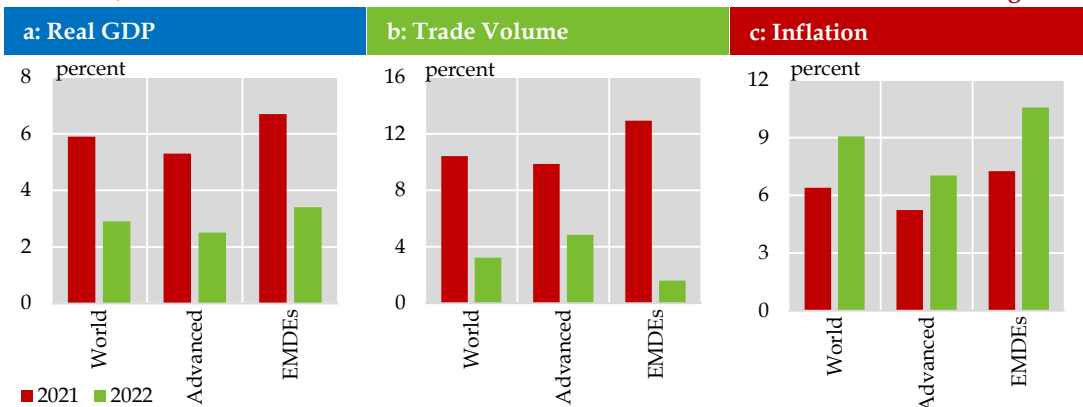
it aggravated debt servicing and repricing risk in the rising interest rate environment.

The higher government budgetary borrowing mainly drove expansion in net domestic assets (NDA) to the last year's level, whereas, private sector credit (PSC) decelerated during H1-FY23 amid economic downturn. Within PSC the growth in working capital loans weakened significantly, while fixed investment remained around the last year's level. On the other hand, inadequate external inflows along with scheduled repayments of external debt resulted in sharp contraction of net foreign assets (NFA) during H1-FY23. Consequently, the broad money growth slowed down during H1-FY23.

The external sector faced headwinds from paucity of external financing, slowdown in global demand, and fallout of flash floods during H1-FY23. In particular, external financing remained under significant pressure due to uncertainty regarding the resumption of IMF program, along with tight global financial conditions. Also, supply chain disruptions resulting from Russia-Ukraine conflict and China's zero - Covid

Real GDP, Trade Volumes and Inflation - YoY

Figure 1.4



Sources: World Bank, CPB World Trade Monitor, International Monetary Fund

policy, hampered global demand, which also weighed on Pakistan’s export performance (Figure 1.4). On the supply side, flood-related disruptions led to lower crop outturns, which not only dented the food exports but also deteriorated the commodity import outlook.

Similarly, workers’ remittances also declined during H1-FY23. In addition to the global economic slowdown, increase in the use of informal channels also affected remittances flows to the country. However, the decline in exports and remittances was more than offset by a much larger fall in imports during H1-FY23, leading to a notable decline in current account deficit (CAD).

Despite this improvement in CAD, the dearth of financial inflows led to significant decline in FX reserves during H1-FY23. In addition to the delays in the disbursements of the IMF tranches and the political uncertainty in the country, higher net FX outflows on account of scheduled debt repayments, (including a US\$ 1.0 billion Eurobond), as well as disinvestments added to external account pressures (Figure 1.5). The combined effect of these developments,

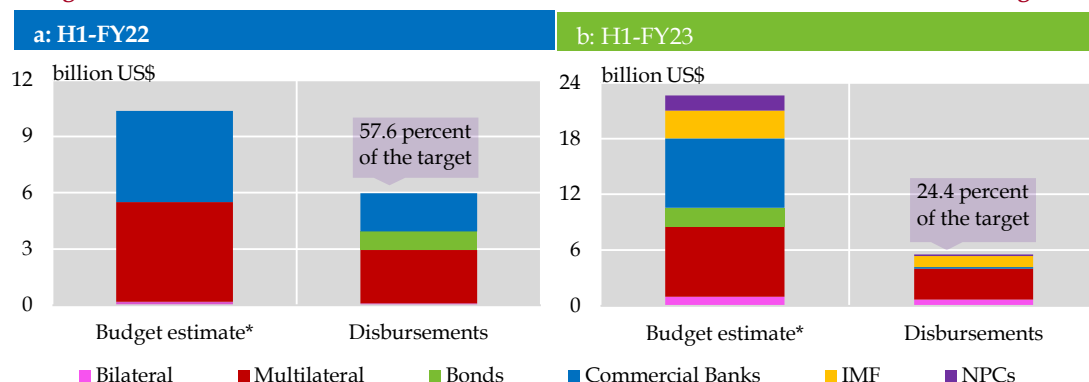
in the backdrop of US dollar’s appreciation against a basket of global currencies, led to 24.1 percent depreciation in PKR during H1-FY23.

Pakistan’s recurring external account vulnerabilities and increasing number of supply side shocks, especially due to climate change underscore the necessity for building economic resilience. Pakistan, in fact, is one of the most exposed country to natural calamities with the frequency and severity of these events increasing by the year. H1-FY23 was no exception as Pakistan faced one of the worst flooding in its history with sizeable loss to property, economic activity and most importantly life. The country, therefore, needs to direct policy attention towards building buffers to weather various shocks.

Specifically, it is imperative to improve water management to ensure water security in the country by building water reservoirs to cushion against extremes and uncertain events. In this regard, water received from abundant rainfalls and through the melting of glaciers should be preserved to make productive use of any windfall gain. Similarly, there is an urgent need to ensure

Budget Estimates vis-a-vis Disbursements of External Loans

Figure 1.5



Source: Economic Affairs Division

availability of ample food stocks to address the issue of food security in the country, which requires addressing market failures and investments in storage facilities and cold chain management. Also, as a net energy importer, enhancing storage capacity of energy products assumes importance as well.

Furthermore, maintaining FX reserves buffers is crucial to ensure external account sustainability to enhance the country's ability to ward off the impact of adverse global supply shocks especially emanating from higher oil and commodity price. Given Pakistan's huge dependence on food and energy imports, any supply shock in international market quickly erodes the country's external sustainability through worsening of terms of trade. The long-standing structural issues have weakened the country's ability to accumulate FX reserves through conventional means, which has increased the country's dependence on borrowed resources. Therefore, there is urgent need to upgrade policy efforts for attracting foreign private investments and expanding export earnings.

In the same vein, unconventional means may also be used to reduce import dependence; for example, by adopting energy conservation measures. These may include, introducing day-light saving, early closure of markets, introducing remote work, creating awareness about social responsibility, usage of energy efficient technologies and a gradual shift towards alternative energy sources, such as solar and wind.

1.1 In addition to addressing the above mentioned structural issues, Pakistan has to prioritize its envisioned transition to digitalization, which offers developing countries an opportunity to leapfrog. The recent sharp growth in Pakistan's software-

led IT exports and technology start-ups appear as emerging signs of digitalization. However, as the **Special Section** in this report shows, the country's share in global IT exports remains very small, dominated by small-sized firms and concentrated to a few markets. Domestic software usage is also negligible; whereas, the start-up space also lags behind peer economies in terms of producing unicorns, funding, overall ecosystem and their presence across the economy. With a focus on software exports and technology start-ups, the special section sheds light on the enabling policies that have facilitated growth in this space, such as Digital Pakistan Policy 2018 and the SBP's Electronic Money Institutions regulations 2019. The section also highlights some of the critical gaps that are to be addressed, if recent growth in these sectors is to be sustained.

1.2 Economic Outlook

The demand management measures and 2022 floods, have weighed heavily on the growth outlook for FY23. The data on sales volumes of automobiles, POL, and cement recorded a significant decline in H1-FY23. In agriculture sector, rice and cotton crops were severely damaged; the LSM output, on the other hand, fell by 3.7 percent. Therefore, real GDP growth in FY23 is expected to remain significantly lower than the previous year's growth rate, as well as SBP's revised projection of around 2 percent. This reflects a broad-based moderation in economic activity in the wake of dampened performance of both agriculture sector and industrial output, with its negative spillovers for the services sector.

On the fiscal side, the deceleration in FBR tax collection on account of temporary import

restrictions and subdued economic activity, alongside sharp growth in current expenditures driven by higher interest payments on public debt during H1-FY23 have caused narrowing of the fiscal space. As a result, the contraction in federal development expenditures to contain deterioration in fiscal position has posed challenges for FY23 economic outlook. Meanwhile, the anticipation of further slowdown in economic activity amid monetary tightening and other demand curtailment measures is likely to decelerate the current growth momentum of tax collection, thus, widening the fiscal deficit.

Despite a substantial improvement in CAD by US\$ 5.5 billion during the first half of FY23, the external account pressures continued to persist amidst scheduled debt repayments and markedly lower foreign inflows which, in turn, resulted in a severe drawdown in foreign exchange reserves. In view of the prevailing domestic macroeconomic uncertainty, impact of flood, and increasing interest rate environment globally, the external account vulnerabilities are likely to remain at an elevated level in FY23. However, the resumption of IMF's EFF program would help assuage the overall external sector concerns by increasing access to multilateral and bilateral financing avenues. The downside risks to the external sector outlook are: sharper than expected slowdown in global demand that could impact exports and workers' remittances negatively. Likewise, global and domestic uncertainty also pose downside risks. On the upside, more than expected slowdown in domestic demand or relatively sharp fall in

global commodity prices, could improve the current account deficit.

Meanwhile, NCPI inflation is projected to remain elevated within the range of 27-29 percent in FY23. The deteriorating inflation outlook is predominantly ascribed to the persistent uptick in food and energy inflation, while core inflation may continue to edge up as well. The near-term risks to inflation outturns could be explained by various factors: the second round impact of recent exchange rate depreciations, fiscal adjustments including upward revisions in GST, gas and electricity tariffs, and an upward drift in inflation expectations. In addition, uncertainty regarding crude oil price increase due to faster than expected growth in Chinese economy and lower than target wheat production in Pakistan are other upside risks to the inflation outlook.

Nonetheless, both the government and the SBP have been undertaking policy measures to tackle the current economic challenges. The government has rationalized expenditures through contraction in subsidies and grants, and has introduced additional revenue mobilization measures in February 2023 aimed at fiscal consolidation. The SBP, on the other hand, has increased policy rate by 625 basis points during 9M-FY23, taking the total rate hike to 1300 basis points during the current cycle of monetary tightening. Going forward, this policy mix, alongside necessary structural reforms to moderate the impact of various supply shocks, would help anchor inflationary expectations in the medium term, and put the economy on a more sustainable growth path.

2 Economic Growth

As a result of policy-induced contractionary measures, flood damages and lower demand in the global markets, the economy experienced sharp slowdown during H1-FY23. In the agriculture sector, Kharif crops, such as rice, cotton and sugarcane reported production losses due to floods. The manufacturing industry faced broad-based contraction as eighteen out of twenty-two sectors registered negative growth. Textile, the largest component, followed by automobile, pharmaceutical, non-metallic minerals, petroleum, and construction-allied sectors majorly contributed in bringing about the decline in the large-scale manufacturing industry. Whereas, continuing their growth momentum, wearing apparel and furniture sectors lessened the magnitude of overall LSM contraction during H1-FY23. The services sector also corresponded to the reduction in agriculture and manufacturing production and remained subdued during the current review period. Moreover, the labor market data for industrial and services sectors, together with SBP Business Confidence Survey and Consumer Confidence Survey, all corroborated decrease in employment during the current review period.

2.1 Economic Growth

The growth momentum of the last two years was disrupted during H1-FY23. Both global and domestic factors played their part. The Russia Ukraine conflict, supply chain disruptions, high energy and raw material prices, monetary tightening by advanced economies, while leading to global downturn, also adversely impacted prices of raw materials and partly demand for Pakistan exports. In Pakistan, the situation was exacerbated by heavy flooding, supply chain disruptions, along with political uncertainty. The policy induced measures aimed at demand and import compression led to moderation in the manufacturing activity.

For agriculture, the H1-FY23 was particularly challenging largely owing to climate externalities. Pakistan witnessed a drought like situation in the beginning of the Kharif season (April 2022) followed by record monsoon rains, which resulted in heavy floods throughout the country. In addition, the high global gas prices caused higher fertilizer costs leading to suppressed fertilizer offtake during the review period. Consequently, important crops, such as, rice and cotton sustained production losses, as compared to last year. Within the important crops, rice suffered the most, as the intensity of flood damages was the highest in the rice

Affected Area - Major Crops **Table 2.1**
square km

	Cultivated	Flooded Area	
		Total	Percent
Rice			
Sindh	11,900	7,043	59
Punjab	32,703	4,877	15
Cotton			
Sindh	7,637	1,048	14
Punjab	5,979	177	3
Sugarcane			
Sindh	3,016	361	12
Punjab	23,475	639	3

Note: Geospatial flood impact analysis conducted by FAO, August 01-31, 2022

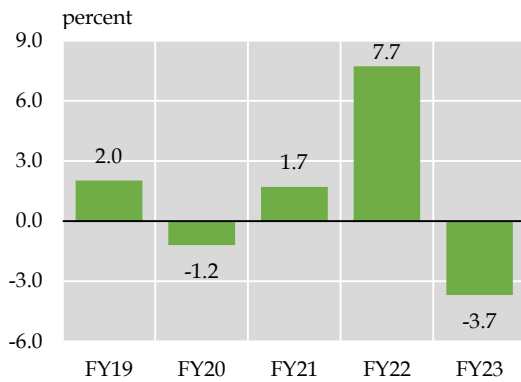
Source: Food & Agriculture Organization

crop zone. After rice, cotton reported the most losses (**Table 2.1**). Sugarcane reported relatively lower losses due to its resilience to flooding. Moreover, pulses such as moong and maash, along with chillies also witnessed a decline in production mainly due to a decrease in area under cultivation.

Large-Scale Manufacturing (LSM) was particularly affected by demand compression policies and measures as it experienced a sizeable contraction during H1-FY23 compared to a noteworthy growth in the same period last year (**Figure 2.1**). The downturn remained broad-based as eighteen out of twenty-two sectors registered contraction in their production in the current

LSM Growth in H1

Figure 2.1



Source: Pakistan Bureau of Statistics

review period. Textile, the largest component, remained the major drag. Following textile, automobile, pharmaceutical, construction-allied and food were other notable sectors to experience downturn in the manufacturing industry. Two noteworthy exceptions were wearing apparel and furniture industries which, owing to their product specific demand abroad, grew exceptionally high; partially offsetting the magnitude of contraction in LSM.

Losses in the agriculture sector and the contraction in the manufacturing sector had spillover impacts in the services sector during H1-FY23. Activities in the *wholesale and retail* trade sector slowed down, mirroring the contraction in commodity producing sector, along with the decline in imports. Furthermore, in line with the

decreased economic activity, damages to infrastructure and increase in petroleum prices, activities in the transport sector also slowed down. *Food and accommodation* sector was negatively impacted by the disruption in tourist activities, caused by floods. Infrastructural damages to educational institutes and health facilities disrupted health and education services.

On the other hand, *banking and insurance* sector benefitted from the growth in assets of the banking sector. Similarly, indicators for *information and telecommunication* also showed a continuation of increased activity and profitability of the sector.

Contraction in manufacturing sector was also reflected in the labor market as employment in both industrial and services sectors registered a downturn. The latest SBP Business Confidence Survey (BCS) and Consumer Confidence Survey (CCS), also exhibited deterioration in sentiments about job creation in the labor markets for the past as well as in the next six months.

The widespread flash floods also affected the economic activity during H1-FY23. The impact was not confined to agriculture only, and was spilled over to the manufacturing and services sectors as well. In this backdrop, **Box 2.1** outlines recent floods damages and calls for developing a strategy for mitigating the risk emanating from climate change.

Box 2.1: FY23 Flood Losses - Latest Assessment¹

The long spell of unprecedented monsoon rains and the subsequent flash floods in FY23, caused widespread devastation in Pakistan at a time when the country was grappling with various macroeconomic challenges. The floods inundated about 94 districts, mostly in the provinces of Balochistan, Sindh, and Khyber Pakhtunkhwa (KP), including 19 out of 25 poorest districts in the country. In the aftermath of these historic floods, millions of people, crops, livestock, essential infrastructure and human settlements stood severely affected.

More than 33 million people (approximately 15 percent population) were affected by the catastrophic floods with more than 1700 casualties recorded. The infrastructure of the country including 2.3 million houses, 13 thousand kilometers of roads, and more than 400 bridges, also sustained extensive damages due to which accessibility and connectivity to several flood-hit areas for rescue and relief operations was disrupted (Table 2.1.1). As per the latest estimates, the extreme floods and ensuing large-scale destruction witnessed by the country, has resulted in overall economic losses amounting to US\$ 30 billion.²

Cumulative Losses in Floods³

Table 2.1.1

roads in km; other indicators in number

Province/Region	Roads	Bridges	Houses	Livestock	Affected Population
Sindh	8,389	165	1,885,029	436,435	14,563,770
Balochistan	2,222	58	241,659	500,000	9,182,616
Punjab	877	15	67,981	205,106	4,844,253
KP	1,575	107	91,464	21,328	4,350,490
GB	33	61	1,793	609	51,500
AJ&K	19	33	555	792	53,700
Total	13,115	439	2,288,481	1,164,270	33,046,329

Source: National Disaster Management Authority

The record flooding undermined the growth prospects in all sectors of the economy. Specifically, the agriculture sector witnessed pronounced losses, emerging from damages to crops and livestock, which have led to slowdown in industry and services sector through various channels. Moreover, this has also raised concerns about food security situation in the country, necessitating import of food grains to meet the supply-demand gap. The estimates indicated adverse effects of heavy rainfalls on the production of important *kharif* crops. The flood inundation was the highest in the rice crop zone, followed by sugarcane and cotton. The loss in rice production took its toll on the exportable surplus, resulting in decline in the rice export volumes in the first half of FY23 as compared to same period last year. As a result of prolonged rainfall and water logging in major cotton producing areas, crop production remained prone to severe damages and recorded a 24.6 percent decline during H1-FY23. Thus, the availability of cotton to factories has already declined by 18 percent, compared to the previous year as of 15th September, 2022.⁴ Moreover, the floods also impacted the area cultivated under the relatively resilient sugarcane crop; however, the decline in production remained contained as compared to other crops. The damages caused by floods also spilled over to *rabi* crops vis-à-vis delayed planting of wheat and oil seeds etc.

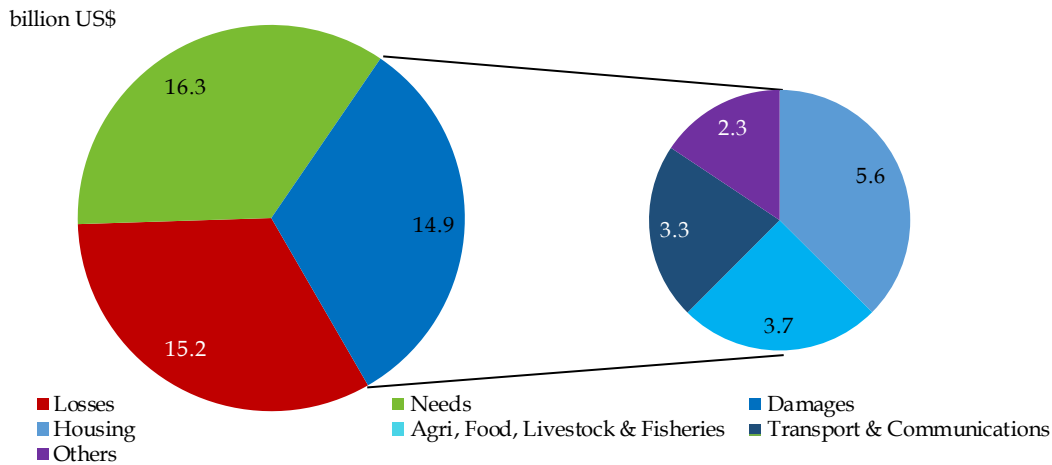
In the same vein, the livestock sector, that contributes almost 60 percent to the agriculture sector, remained highly vulnerable to floods. The significant loss of livestock caused shortages of meat, milk and other dairy products. This, along with the shortages of other perishable food commodities such as onions and tomatoes exacerbated food inflation.

The losses to crops, livestock and other rural infrastructure undermined the rural incomes, and had a dampening impact on domestic demand. Similarly, raw material shortages and supply chain disruptions affected various industries including textile, sugar, and leather.

The reduction in the output of agriculture and large-scale industry also impacted the services sector. Specifically, the growth in wholesale and retail services slowed down amid downturn in commodity producing sectors. The trade and transportation activities faced headwinds due to destruction of roads and bridges, causing disruptions in supply chains. Moreover, health and education services were affected by floods and recorded significant damages.

Flood Damages, Losses and Needs

Figure 2.1.1



Source: Ministry of Planning, Development and Special Initiatives

As reported by the Post Disaster Needs Assessment by Ministry of Planning, Development & Special Initiatives, the total damage caused by floods is estimated at PKR 3.2 trillion (US\$14.9 billion), total loss at PKR 3.3 trillion (US\$15.2 billion), and total needs at PKR 3.5 trillion (US\$16.3 billion). Total damage and loss, together, account for the effects of the crisis. Whereas, total needs (for recovery and reconstruction) are estimated in terms of costs of replacement according to current prices and include a premium linked to building-back-better principles. Among the sectors that were mostly affected by the damage are housing at PKR 1.2 trillion (US\$5.6 billion); agriculture, food, livestock, and fisheries at PKR 800 billion (US\$3.7 billion); and transport and communications at PKR 701 billion (US\$3.3 billion). The transport and communications sector has the highest reconstruction and recovery needs at PKR 1.1 trillion (US\$5.0 billion); followed by agriculture, food, livestock, and fisheries at PKR 854 billion (US\$4.0 billion), and housing at PKR 592 billion (US\$2.8 billion) (Figure 2.1.1).

The changing rainfall patterns and the concomitant occurrence of extreme weather events in Pakistan, have increased the vulnerability of the country to climate change. It is likely that the area affected by floods in Pakistan is likely to increase in future on the back of more intense rainfalls and rapidly melting glaciers.⁵ In this backdrop, Pakistan has to develop and adopt a multipronged strategy to meet the rising challenge of climate change.

¹Based on NDMA and Post-Disaster Need Assessment by Ministry of Planning, Development & Special Initiatives

²Post-Disaster Need Assessment by Ministry of Planning, Development & Special Initiatives; www.pc.gov.pk/uploads/downloads/PDNA-2022.pdf

³NDMA Monsoon SITREP # 158 (June 14 - November 18, 2022); cms.ndma.gov.pk/storage/app/public/situation-reports/November2022/N2n1eEarMt6q6Rb8ZYwn.pdf

⁴Pakistan Central Cotton Committee (PCCC) "Consolidated statement of cotton arrivals in factories of Pakistan", 15th September 2022

⁵World Bank Group (WBG) and the Asian Development Bank (ADB) "Climate Risk Country Profile: Pakistan", 2022

2.2 Agriculture

In H1-FY23, agriculture sector faced headwinds owing to country wide torrential

floods. The heavy monsoon rainfall during the months of June, July and August submerged almost one third of the country,

thus resulting in severe crop losses.¹

The 2022 floods coincided with the Kharif season. Consequently, all important Kharif crops sustained damages. Within the important crops, compared to last year, rice reported the highest losses, as flood inundation was the highest in rice producing zones followed by cotton. Sugarcane and maize reported relatively lower losses. Damages to important crops and livestock, along with supply chain disruptions caused food shortages and worsened the food

security situation by limiting the affordability and availability of food.^{2,3} The damages were more pronounced in the province of Sindh (Table 2.2).⁴

On the input side, unprecedented monsoon rainfall adversely impacted production of important crops. Moreover, Fertilizer offtake was dampened by high prices. To facilitate recovery, the government channeled its support through the Kissan package by enhancing credit disbursements and providing subsidized loans to farmers in flood affected areas. To provide support to subsistence and landless farmers three schemes were launched: markup waiver scheme for subsistence farmers, GoP markup subsidy scheme and interest free loans for landless farmers.

Flood - Highest Impacted Districts Table 2.2
square km

Flood Extent in Sindh		
District	Affected Area	Percent of Total Area
Kambar Shahdad Kot	3,339	60%
Badin	2,853	43%
Dadu	2,278	28%
Jacobabad	2,261	84%
Sujawal	1847	21%
Sindh	25, 440	18%
Flood Extent in Punjab		
Rajapur	1,666	13%
Dera ghazi Khan	1,013	9%
Sheikhupura	901	25%
Sialkot	824	27%
Bahawalpur	823	3%
Punjab	12,820	6%

Note: Geospatial flood impact analysis conducted by FAO, August 01-31, 2022

Source: Food & Agriculture Organization

Inputs

Water Availability

Heavy rainfall resulted in flash floods

The weather conditions remained unfavorable during Kharif season as a drought like situation was followed by heavy rains that caused flooding. In terms of water availability, the Kharif season began by witnessing the second driest month since 1961 – as national rainfall for the month of

¹ Source: Ministry of Planning Development and Special Initiatives (2022). Pakistan Floods 2022: Post Disaster Need Assessment Supplemental Report. Islamabad: Ministry of Planning Development and Special Initiatives.

² As per post disaster needs assessment, around one million livestock are estimated to have perished.

³ As per PBS, urban food inflation was higher at 30 percent in H1-FY23 as compared to 10.6 percent in H1-FY22

⁴ The province accounts for 16, 42, 23, and 31 percent production of wheat, rice, cotton and sugarcane respectively. Source: International Centre for Integrated Mountain Development and Pakistan Agricultural Research Council (2022). The 2022 Pakistan Floods: Assessment of Crop Losses in Sindh Province Using Satellite Data. Kathmandu: ICIMOD and Islamabad: PARC

April was 74 percent, largely below normal.⁵ However, this situation changed in the following months as the national rainfall during July remained 180 percent higher than average. Rainfall in Sindh was significantly above normal during the month of August and remained the highest in the last 62 years (Figure 2.2).⁷

In line with the rainfall patterns, irrigation water availability remained lower in the start of the season. However, towards the end of the season lesser irrigation water flows were required due to the heavy monsoon rainfalls and floods.⁸ Overall, irrigation water supplies remained lower than last year. (Figure 2.3).

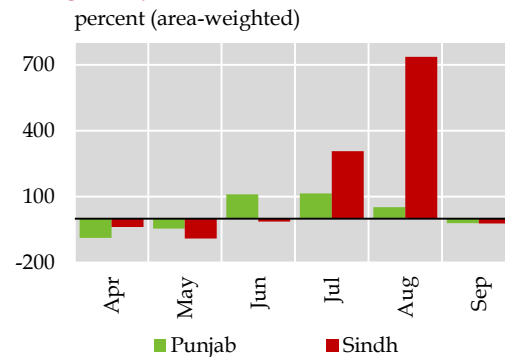
Fertilizer

Fertilizer offtake shrank due to higher prices

During H1-FY23, fertilizer offtake remained much lower for kharif compared to last year. Urea along with DAP offtake contracted by 1.3 and 44.7 percent respectively, as compared to last year. (Figure 2.4a and 2.4b). The decline in fertilizer offtake can be attributed to lower demand from farmers as agricultural land remained inundated during Kharif.

Moreover, as Pakistan relies mostly on imported supply of DAP, hence, domestic prices move in tandem with the global prices. A confluence of factors, such as, production cutbacks in ammonia and supply disruptions

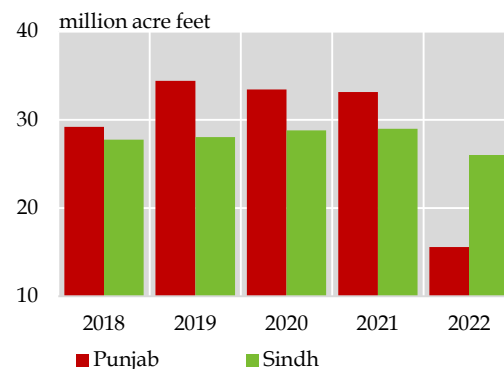
Departure of Rainfall from Normal* Figure 2.2 during Kharif 2023



* Normal refers to area-weighted rainfall during 1981-2010
Source: Pakistan Meteorological Department

from Russia-Ukraine conflict increased the prices (Figure 2.5). Furthermore, the availability of DAP also remained strained as China imposed a ban on DAP exports during the review period, resulting in considerably lower imports of DAP from China (Figure 2.6).⁹

Irrigation Water Releases during Figure 2.3 Kharif (Apr-Sep)



Source: Indus River System Authority

⁵ During Kharif sowing season begins from April-June and is harvested during October-December. Source: Pakistan Economic Survey 2017-18

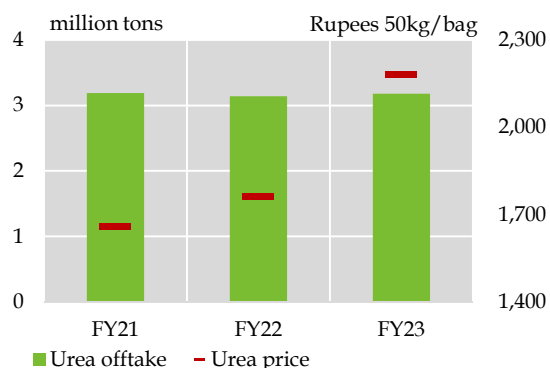
⁶ Source: Pakistan's Monthly Climate Summary April 2022, Pakistan Meteorological Department

⁷ As per estimates by Pakistan Meteorological Department, August was recorded the wettest month since 1961.

⁸ Source: SUPARCO Crop Situation and Forecast Report, Volume XII (Issue 10), September 2022

⁹ Pakistan imports most of its DAP fertilizer from China. Source: CPFTA Import Analysis, Trade Development Authority of Pakistan, 2022

Urea Offtake and Price During Kharif (Apr-Sep)



Source: National Fertilizer Development Centre

The prices of urea also increased due to the increasing cost of production but the offtake did not witness a significant decline, as urea still remained relatively affordable compared to DAP. To encourage production, subsidy disbursements to fertilizer sector increased to Rs 6.7 billion in H1-FY23, up from Rs 6 billion in H1-FY22.

Agriculture Credit Disbursements

Agriculture credit disbursements expanded to keep up the high cost of production

Agriculture credit disbursements for H1-FY23 expanded by 31 percent - to Rs 842 billion in H1-FY23 as compared to 640.8 billion during the same period last year. Majority of the disbursements were production loans for the farm sector, followed by the livestock and poultry segment in the Non-farm sector (Table 2.3).

In the aftermath of floods, an increase in the production loans was a consequence of the rising cost of production, as well as the tight liquidity condition of the farmers. Loans during Q2-FY23 remained higher as compared to Q1-FY23, factoring in the

Figure 2.4a DAP Offtake and Price During Kharif (Apr-Sep)

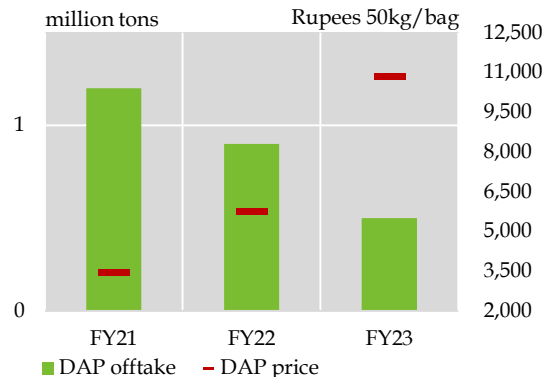
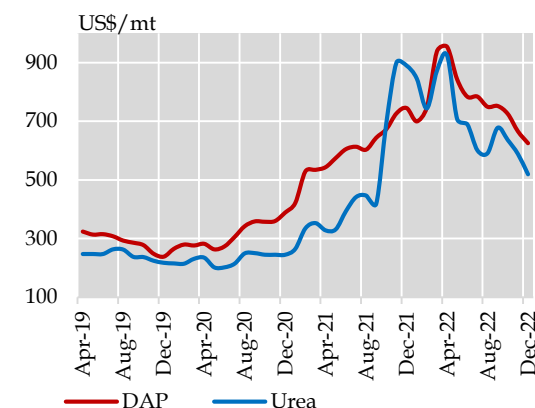


Figure 2.4b

Global DAP & Urea Prices

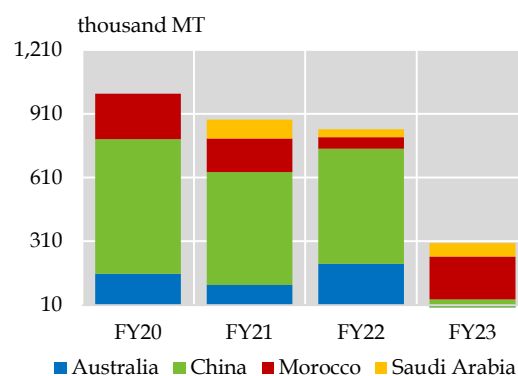
Figure 2.5



Source: World Bank

Source-wise DAP Imports to Pakistan

Figure 2.6



Source: Pakistan Bureau of Statistics

Agriculture Credit Disbursements**Table 2.3**

billion Rupees

	Q1-FY22	Q2-FY22	H1-FY22	Q1-FY23	Q2-FY23	H1-FY23
Farm sector						
A. Production	136.3	158.4	294.7	188.6	231.1	419.7
B. Development	8.1	16.8	24.9	8.4	16.9	25.3
<i>Tractor</i>	1.7	2.9	4.6	0.9	1.4	2.3
C. Total farm sector (A+B)	144.4	175.2	319.6	197	248	445
Non-farm sector						
D. Livestock/dairy	76.3	82.4	158.7	94.3	103	197.3
E. Poultry	48.5	55.5	104.3	65.7	68.8	134.5
F. Other	8.9	14	22.9	15.1	16	31.1
G. Total non-farm sector	147.5	173.7	321.2	186.7	210.8	397.5
Total agriculture (C+G)	291.9	348.9	640.8	383.8	458.6	842.4

Source: State Bank of Pakistan

impact of flood related losses. In the non-farm sector, poultry sector disbursements increased by 28.8 percent mainly due to the rising cost of inputs such as poultry feed.

To encourage production and keep up with the rising cost of inputs, SBP revised the indicative credit limits for important crops in August 2022 (Table 2.4). Schemes launched by the State Bank of Pakistan, such as, the scoring model and champion banks also helped ensure adequate provision of credit to

farmers. To assist farmers in the flood affected areas, GoP introduced the Kissan Package which enabled restructuring and rescheduling of agricultural loans.¹⁰

Under the Kisaan Package, markup waiver scheme for subsistence farmers, GoP markup subsidy scheme for agriculture sector was announced. In addition, interest free loans and risk sharing schemes for farmers in affected flood areas were launched, to facilitate the revival of agriculture sector.¹¹

Per Acre Indicative Agriculture Credit Limits for Crops**Table 2.4**

Rupees per acre

Crop	Existing (Jan 2022)	Revised (Aug 2022)
Wheat	60,000	100,000
Cotton	70,000	95,000
Rice	75,000	102,000
Sugarcane	105,000	142,000
Maize (Hybrid)	78,000	106,000
Maize	65,000	88,000

Source: State Bank of Pakistan

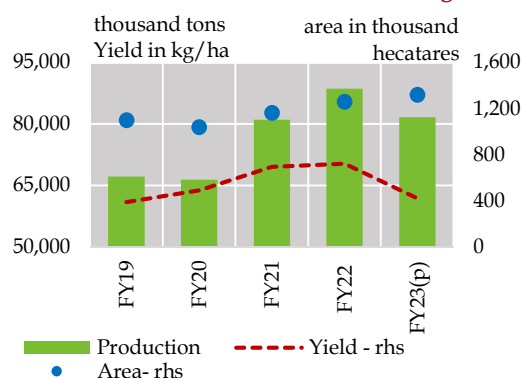
Output**Sugarcane*****Sugarcane remained relatively resilient to floods***

After a bumper sugarcane crop in FY22 of 88.6 million tons, sugarcane production for FY23 is estimated to be at 81.6 million - 7.9 percent lower than last year (Figure 2.7). The

¹⁰ Source: State Bank of Pakistan Press Release dated December 22, 2022

¹¹ Source: AC&MFD Circular No. 03 of 2022, State Bank of Pakistan

Area and Production of Sugarcane Figure 2.7



Source: Federal Committee on Agriculture (MNFSR), and Pakistan Bureau of Statistics

area under sugarcane crop witnessed an increase, as farmers continued to substitute cotton crop with sugarcane, due to better returns.¹²

However, despite an increase in area during FY23, production of sugarcane crop declined because of the damage caused by floods. The decline is comparatively lower than other

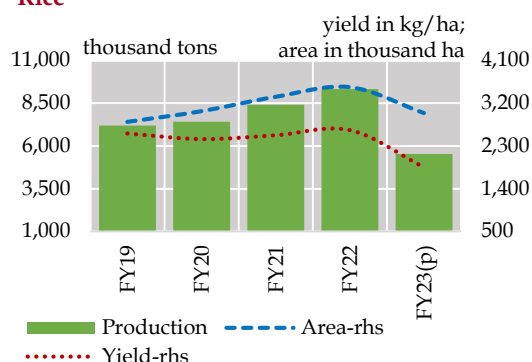
crops as the sugarcane is fairly resilient to flooding. In Sindh, floods damaged 12 percent of the area cultivated under sugarcane, but the estimated damages were lower than cotton and rice, as sugarcane is mostly grown in the northeastern districts, where flood inundation remained relatively lower.¹³

Rice

Rice crop suffered the most damages due to floods

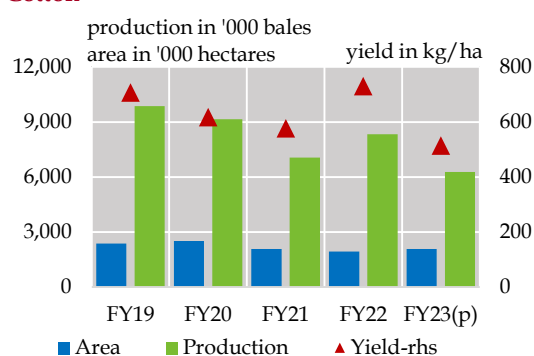
Production of rice crop declined by 40 percent as compared to last year (Figure 2.8). Rice crop faced headwinds as major rice producing areas in Punjab and Sindh remained flooded prior to harvest.¹⁴ The damages were mainly concentrated in Sindh, which contributes almost 42 percent of the total rice production of the country. In Sindh, production went down by 88 percent, as the main rice producing districts, such as,

Area, Yield and production of Rice Figure 2.8



Source: Federal Committee on Agriculture (MNFSR), and Pakistan Bureau of Statistics

Production, Yield and Area of Cotton Figure 2.9



Source: Federal Committee on Agriculture (MNFSR), & Pakistan Bureau of Statistics

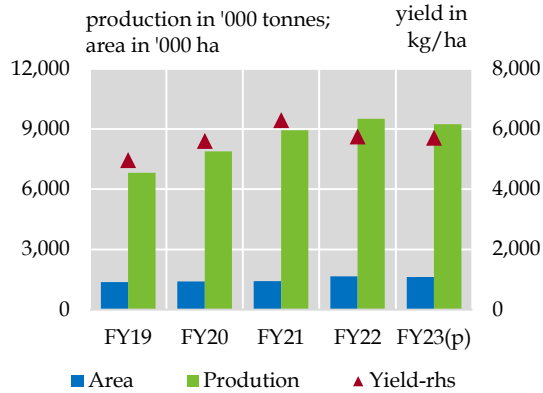
¹² For more details see SBP Annual Report on the State of Pakistan’s Economy 2021-22

¹³ The 2022 Pakistan Floods: Assessment of Crop Losses in Sindh Province Using Satellite Data. Kathmandu: ICIMOD and Islamabad: PARC

¹⁴ Source: A Rapid Geospatial Impact Analysis of Floods in Pakistan (2022), Food and Agriculture Organization

Production, Area and Yield of Maize

Figure 2.10



Source: Federal Committee on Agriculture (MNFSR) & Pakistan Bureau of Statistics

Badin and Kambarshahdad Kot remained inundated.¹⁵ Moreover, rice production in Punjab declined by 14 percent due to floods. The production losses has also negatively affected rice exports (see **Chapter 5 External Sector**).

Cotton

Production of cotton crop declined due to unfavorable weather conditions

The estimated cotton production stood at 6.3 million bales in FY23 as compared to 8.3 million bales last year – exhibiting a decline of 25 percent (**Figure 2.9**). Cotton production reported losses due to floods, as almost 14 percent of area cultivated under cotton was damaged in Sindh.

Cotton sustained pressures since the beginning of the season due to lower water availability and heat stress. Later in the

season, floods compounded the adverse impacts. In the aftermath of floods, high humidity proved conducive to pest attacks, such as pink bollworm.¹⁶ In line with the trend, cotton arrivals have also decreased significantly. As reported by Pakistan Central Cotton Committee (PCCC), cotton arrivals declined by almost 40 percent in December 2022, adversely impacting the textile sector and undermining cotton exports.

Maize

Maize crop suffered the least damages

Maize production for FY23 was estimated to be 9.2 million tons, as compared to 9.5 million tons last year- reflecting a flood related decrease of almost 3 percent over last year (**Figure 2.10**). Among important crops, maize production for Kharif FY23 suffered the least damages, as most maize producing areas were not impacted by floods. Maize is a multipurpose crop, and has gained popularity in the last two decades, due to its vast usage for food, feed and fodder.¹⁷

Wheat

For *Rabi* FY23, the wheat production target was set at 28.4 MMT from an area of 9.3 million hectares (**Table 2.5**) by the government. The wheat production target for Punjab has been fixed at 21 million tons, while Sindh’s target has been fixed at 4 million tons. To encourage farmers, Punjab and Sindh governments have fixed Minimum Support Price (MSP) of Rs. 3000

¹⁵ Source: The 2022 Pakistan Floods: Assessment of Crop Losses in Sindh Province Using Satellite Data. Kathmandu: ICIMOD and Islamabad: PARC

¹⁶ Source: SUPARCO Crop Situation and Forecast Report, Volume XII (Issue 10), September 2022

¹⁷ Source: Pakistan Economic Survey 2020-2021

Wheat Crop**Table 2.5**

area in million hectares; production in million MT

	Area		Production	
	FY22	FY23(T)	FY22	FY23(T)
Punjab	6.6	6.7	20.0	21.0
Sindh	1.2	1.1	3.8	4.0
KP	0.8	0.9	1.4	1.8
Baluchistan	0.5	0.5	1.2	1.6
Pakistan	9.1	9.3	26.4	28.4

T: target

Source: Federal Committee on Agriculture, Pakistan Bureau of Statistics

and 4000 per 40 kg respectively to encourage wheat production.¹⁸

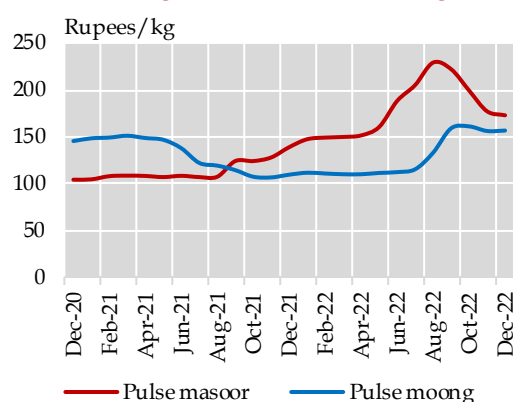
As wheat is a widely used staple in the local diet, considerable demand and supply gaps exist. As of FY23 demand for wheat consumption is estimated to be at 30.79 million metric tons, as per estimates by MNFSR – whereas, in last year, production stood at 26.4 million metric tons – showing a shortfall of almost 3 million metric tons from the consumption requirements. To meet this shortfall Pakistan has been importing wheat for the last two years. In FY21 wheat imports

stood at 3.6 million tons, whereas in FY22, 2.2 million tons of wheat was imported.

Minor Crops**Production of minor crops declined, resulting in higher prices**

During FY23, production of kharif minor crops such as moong, mash and chillies also declined by 30 percent, 36 percent and 54 percent respectively as compared to last year mainly due to a decline in area under cultivation. Area declined due to heavy rains during the sowing season. In the aftermath of floods, their prices remained elevated (**Figure 2.11**)

Within minor crops, the FY23 Rabi season targets for onion and tomatoes look for an increase in the area and production. Furthermore, target for potato crop is set lower than its output for FY22, as its bumper production resulted in surplus. Targets for area and production of gram are also enhanced to meet the growing demand for pulses. The increase was particularly significant in gram as its area and production is targeted to increase by 14 and 75 percent respectively (**Table 2.6**).

Prices of Moong and Maash**Figure 2.11**

Source: Pakistan Bureau of Statistics

2.3 Large-scale Manufacturing

LSM contracted by 3.7 percent during H1-FY23 down from an expansion of 7.7 percent in the corresponding period last year. This reflects the impact of tight monetary conditions, lower PSDP spending, imports compression measures, and increase in power tariffs and fuel prices along with lower demand in the domestic as well as global markets.

¹⁸ Source: www.senate.gov.pk

Minor Crops (Rabi)

Table 2.6

area in '000 hectares; production in '000 tons; growth in percent

	FY22 Output		FY23 Target		Growth	
	Area	Production	Area	Production	Area	Production
Potatoes	313	7,937	238	6,029	-23.9	-24.0
Onion	141	2,108	162	2,422	14.9	14.9
Gram	867	319	989	560	14.1	75.5
Tomatoes	50.3	586	50	622	-0.6	6.1

Sources: Federal Committee on Agriculture (MNFSR) and Pakistan Bureau of Statistics

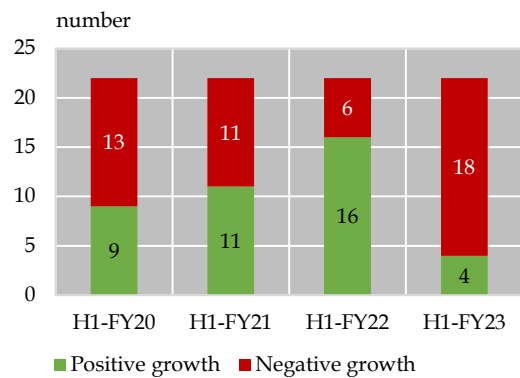
With a few notable exceptions, the LSM observed a broad-based downturn during H1-FY23, with 18 out of 22 sectors witnessing contraction, compared to 6 sectors in the same time last year and an average of 12 sectors in the corresponding period of the previous three years (Figure 2.12).

Despite decline in exports, the export-oriented sectors tracked by LSM index, supported the manufacturing industry during H1-FY23. Segregating the exports-oriented sectors, the magnitude of contraction worsened to 9.9 percent during H1-FY23 against an expansion of 6.1 percent in the corresponding period last year (Figure 2.13).¹⁹

The cumulative contraction in LSM can be attributed to textile followed by automobiles, pharmaceuticals, non-metallic mineral products, and coke & petroleum products (Table 2.7). Whereas, the wearing apparel and furniture industries continued their growth momentum, which lessened the magnitude of the LSM decline.

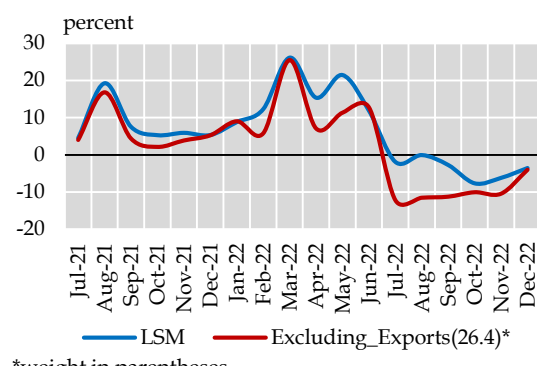
Textile followed by automobile, the largest contributors, contracted by 13.1 and 30.2 percent, respectively, during H1-FY23, against an expansion of 3.5 and 68.2 percent in the same period last year. Moreover, a sizable portion of the overall decline in LSM was also contributed by the decline in pharmaceutical, non-metallic, and petroleum

Positive and Negative Growth Sectors in LSM Figure 2.12



Source: Pakistan Bureau of Statistics

Growth in LSM and LSM-- Excluding Export-Oriented Sectors Figure 2.13



*weight in parentheses

Source: Pakistan Bureau of Statistics

¹⁹ The tentative export-oriented sectors include textile, wearing apparel, furniture, and leather products together with football and electric fans as the sub-sectors.

Growth and Contribution of Major LSM Sectors

Table 2.7

percent					
Sectors	wt.	Growth		Contribution	
		H1-FY22	H1-FY23	H1-FY22	H1-FY23
LSM	78.4	7.7	-3.7	7.7	-3.7
Food	10.7	1.2	-2.6	0.2	-0.4
Beverages	3.8	5.0	-8.3	0.2	-0.4
Tobacco	2.1	21.6	-23.5	0.5	-0.6
Textile	18.2	3.5	-13.1	0.8	-2.8
<i>Yarn</i>	8.9	0.8	-14.2	0.02	-1.4
<i>Cloth</i>	7.3	0.3	-7.2	0.01	-0.6
Wearing apparel	6.1	20.4	46.6	1.6	4.1
Paper & board	1.6	17.3	-2.8	0.4	-0.1
Coke & petroleum products	6.7	0.7	-11.1	0.1	-0.8
Chemical products	6.5	3.3	-1.1	0.3	-0.1
Pharmaceutical products	5.2	-5.0	-21.6	-0.3	-1.2
Non-metallic mineral products	5.0	1.8	-11.7	0.1	-0.9
Iron & steel products	3.4	18.4	-2.1	0.8	-0.1
Electrical equipment	2.0	-3.8	-1.0	-0.2	0.0
Automobiles	3.1	68.2	-30.2	2.0	-1.4
Furniture	0.5	569.1	105.5	1.2	1.4

Source: Pakistan Bureau of Statistics

output. Meanwhile, on the back of product-specific external demand, the wearing apparel and furniture sectors expanded by 46.6 and 105.5 percent during H1-FY23. Consequent to the administrative increase in tariffs and fuel prices, the overall inputs cost as reflected from Wholesale Price Index (WPI) surged from 21.5 percent in the same period last year to 34.1 percent in the current review period. Similarly, the rising financial cost owing to tight monetary conditions led the decline in demand for bank borrowing by the manufacturing sector from Rs 674 billion in the last year to Rs 502.5 billion during the current review period.²⁰

Moreover, amid insufficient foreign exchange inflows and escalating pressure on foreign exchange reserves and exchange rate, the temporary restrictions on importing raw

materials also impeded the manufacturing activities during the current period. Lower demand owing to spike in energy prices in the global markets, together with China's Covid policy of zero-tolerance reduced the country's exports during H1-FY23.²¹

Textile

Exports reduction coupled with flood damages dragged down the textile industry

Textile sector, the largest component of manufacturing industry, registered a contraction of 13.1 percent during H1-FY23 compared to an expansion of 3.5 percent in the corresponding period last year. The production of yarn, cloth and woolen blankets, representing 94 percent of textile sector, contracted by 14.2, 7.2 and 55.0

²⁰ In addition to 675 bps increase during FY22, the SBP raised policy rate by 225 bps during H1-FY23.

²¹ The Baltic Dry Index (BDI) measuring demand for commodities and raw material saw 56.0 percent decrease during H1-FY23.

Production of Textile and Wearing Apparel Industry**Table 2.8**

quantity in million MT; growth in percent

	Weight	Cumulative Quantity			Growth	
		H1-FY21	H1-FY22	H1-FY23	H1-FY22	H1-FY23
Yarn	8.9	1.7	1.7	1.5	0.8	-14.2
Cloth*	7.3	523.8	525.3	487.5	0.3	-7.2
Jute goods	0.3	0.03	0.03	0.03	-9.7	5.6
Woolen blankets**	0.9	32.4	46.0	20.7	41.8	-54.9
Wearing apparel***	6.1	18.0	21.7	31.8	20.4	46.6

*million square meters, **millions, ***million dozen

Source: Pakistan Bureau of Statistics

percent, respectively during H1-FY23 against a growth of 0.8, 0.3 and 41.8 percent in the same time last year (**Table 2.8**). As reported by PCCC, owing to flood damages, cotton arrivals decreased significantly which, had adverse effects on the production of overall textile sector.

Following the China's zero-Covid policy and consequent reduction in demand undermined the textile demand from the export sector. Specifically, the quantum exports of cotton yarn and cotton fabric fell by 42.5 and 25.4 percent during H1-FY23, respectively. In addition, exports of bedwear and towels declined by 26.3 and 16.5 percent, respectively. Moreover, sharp rise in electricity tariffs and fuel prices, together with tight monetary condition also remained the important factors leading to contraction in the textile sector.

In addition to 675 bps increase in FY22, further hike of 225 bps in the policy rate in H1-FY23 along with SBP announcement of linking Export Financing Scheme (EFS) and Long-term Financing Facility (LTFF) to the

policy rate also resulted into upsurge in the borrowing cost of textile sector.²² Afterward, manifesting the downturn in textile production, the working capital loans to the textile sector saw reduction to Rs 137.3 billion during H1-FY23 from Rs 260.1 billion in the same period last year.²³

Wearing Apparel***On the back of garments exports, wearing apparel continued its growth momentum***

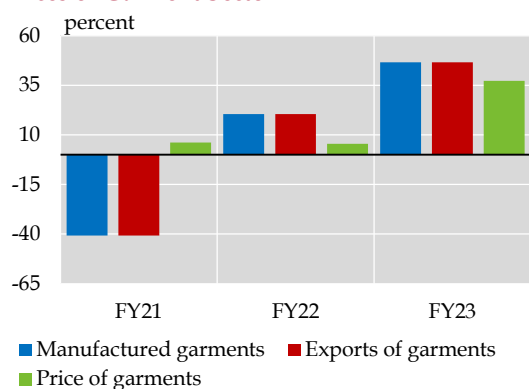
Maintaining its growth momentum, the production of wearing apparel sector recorded an expansion of 46.6 percent during H1-FY23, compared to a growth of 20.4 percent in the same period last year (**Figure 2.14**). The sector benefited from higher exports volumes largely owing to higher demand in traditional market and shifting orders from China to Pakistan (see **Chapter 5 - External Sector**).²⁴ This was despite a sharp increase in input prices, reflected from 37.2 percent increase in WPI of the wearing apparel sector during H1-FY23 compared to 5.5 percent in the same period last year. To cope with the rising cost, the sector expanded

²² Source: IH&SMEFD Circular No. 6, 7, 11 and 13 of 2022.

²³ The textile sector, under the EFS and LTFF, retired Rs 18.8 billion and Rs 2.1 billion respectively during H1-FY23 compared with borrowing of Rs 67.9 billion and Rs 64.6 billion in the same period last year.

²⁴ It is pertinent to mention that unlike spectacular growth in volume, the exports of wearing apparel in terms of US dollars expanded only by 0.1 percent during the current review period.

Growth in Exports, Production & Prices of Garment Sector in H1 **Figure 2.14**



Source: Pakistan Bureau of Statistics

borrowing for working capital during H1-FY23.

Food

Significant growth in sugar sub-sector moderated the decline in food sector.

Food sector, the second largest component of LSM, shrank by 2.6 percent during H1-FY23, against an expansion of 1.2 percent in the same period last year. The reduction in wheat & rice milling remained the prime reason leading to the decline of overall food sector during H1-FY23 (**Figure 2.15**). Owing to flash floods, the rice crop sustained damages hence, its production and exports cutback by 40.0 and 23.0 percent respectively.

Despite a delayed sugarcane crushing, the production of sugar sub-sector posted healthy growth of 14.7 percent during H1-FY23 compared to 4.0 percent decline in the corresponding period last year.²⁵ As a result, the overall decline of food industry was moderated during the period. Similarly, the output in cooking oil and vegetable ghee

subsector contributed positively during the current review period. The increase in the output of cooking oil and vegetable was attributed to rise in imports of soyabean and palm oil during H1-FY23.

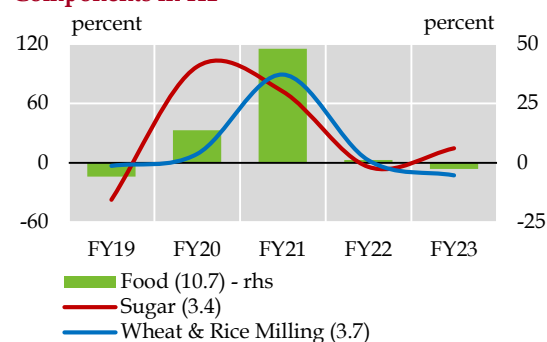
Coke & petroleum

Spike in prices and lower demand dwindled the production in petroleum sector

Petroleum sector also witnessed a decline of 11.1 percent during H1-FY23, compared to an expansion of 0.7 percent in the same period last year. With the exception of increase in jet fuel oil, all sub-sectors of petroleum industry recorded considerable reduction.

Subsequent to the administrative increase in fuel prices and higher depreciation of PKR, the lower demand for petroleum products weighed on refining activity. According to Oil Companies Advisory council (OCAC), the sale of petroleum products plummeted by 20.6 percent during H1-FY23.

Growth of Selected Food Sector Components in H1* **Figure 2.15**

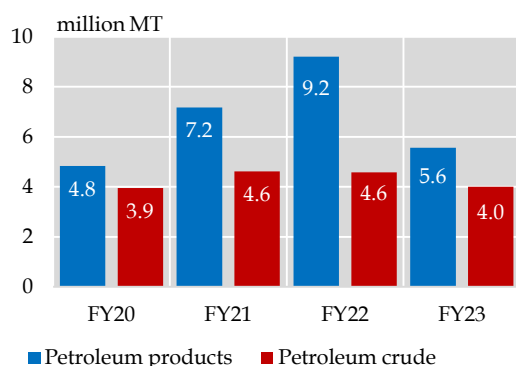


* The QIM weight of the Food sector and selected sub-sectors is given in parentheses.

Source: Pakistan Bureau of Statistics

²⁵ The reported deadlock between the government and millers over exports of sugar delayed sugarcane crushing.

Import Volume of Petroleum Products in H1 **Figure 2.16**



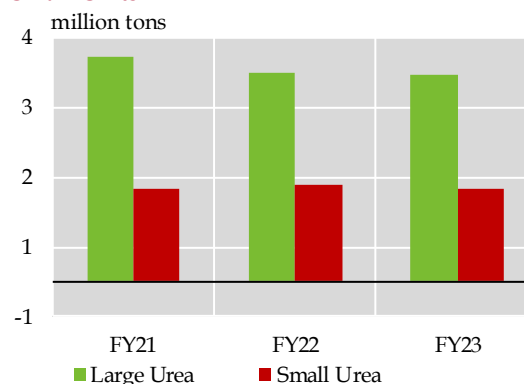
Source: Pakistan Bureau of Statistics

Furthermore, the international oil prices surged, on the average to 94 US\$ per barrel during H1-FY23 from 76 US\$ per barrel in the corresponding period last year, which further dented demand.²⁶ As a result, import quantum of petroleum products and crude dropped down by 39.6 and 12.5 percent respectively (**Figure 2.16**).²⁷

Fertilizer

The fertilizer sector recorded contraction of 2.0 percent during H1-FY23, compared to a decline of 4.5 percent in the same period last year. Urea production fell by 2.0 percent during H1-FY23, compared to a 4.0 percent contraction in the same period last year (**Figure 2.17**). Moreover, the imported fertilizer declined by 21.3 percent which was restricted to 0.7 million metric tons during H1-FY23 against 0.9 million metric tons in the same period last year.

Urea Production by Large & Small Units in H1 **Figure 2.17**



Source: Pakistan Bureau of Statistics

Lower demand from flood affected agriculture land, prolonged turnarounds of fertilizer companies, disruption in gas supply and escalated gas prices were the main factors responsible for reduction in urea production during the review period.

Pharmaceuticals

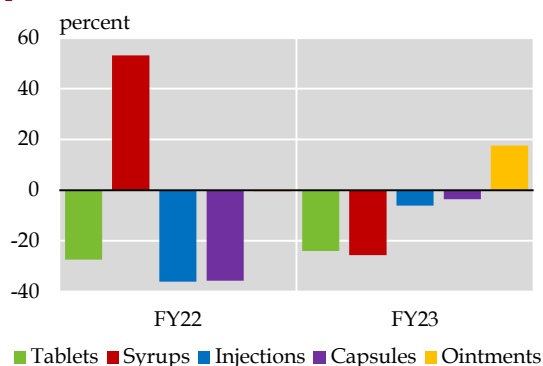
Both domestic and global factors caused notable decrease in pharmaceutical industry

The pharmaceutical sector experienced a decline of 21.6 percent during H1-FY23, compared to 5.0 percent decrease in the same period last year. Tablets output, having more than 50 percent share in the pharmaceuticals, fell by 24.0 percent in H1-FY23 compared to a contraction of 27.4 percent in the same period last year (**Figure 2.18**). Moreover, the quantum of imported medicinal products also registered 12.8

²⁶ In H1-FY23, the average price of Brent oil and Arab light rose from 76.4 and 77.1 dollars per barrel, respectively, to 93.0 and 98.1 US dollars per barrel. Source: IMF Commodity Prices, accessed from Bloomberg

²⁷ It is important to mention that even though the import quantum of petroleum products and crude respectively dwindled by 39.6 and 12.5 percent, however, owing to the price impact, the value of petroleum products in terms of US dollars decreased only by 17 percent. Whereas, the import value of crude increased by 15.2 percent.

Growth in production of Medicinal products in H1 Figure 2.18



Source: Pakistan Bureau of Statistics

percent decline during H1-FY23 against a growth of 150.0 percent in the same period last year.

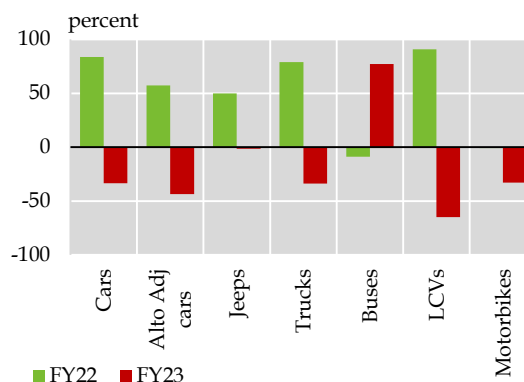
Primarily, heavy reliance on imported raw materials, the escalated prices of medicinal raw materials and substantial depreciation of PKR led to contraction in pharmaceutical production during H1-FY23. The regulated nature of medicine prices remained another constraint.

Automobile

Inflationary pressure and tight policy regulations resulted into considerable fall in production of automobile sector

The automobile industry also posted 30.2 percent contraction during H1-FY23, compared to 68.2 percent growth in the same period last year (Figure 2.19). The reduction in production of automotive industry can be attributed to both supply and demand side factors. The primary reason on demand side was customers cutback demand owing to surge in cars and fuel prices. As reported by PAMA, the auto sale plummeted by 40.0 percent in the current review period (Figure

Growth in Production of Automobile Sector in H1 Figure 2.19



Source: Pakistan Automotive Manufacturers Association

2.20). Another factor attributable to demand side is the SBP tightening prudential requirements for auto loans (see **Chapter 3 - Monetary Policy and Inflation**).

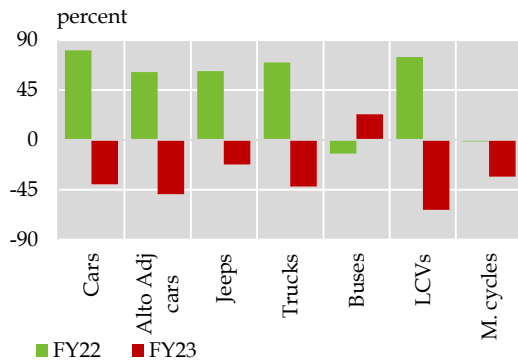
On the supply side, policy-induced import restrictions and significant depreciation of PKR also contributed in imports reduction of completely knocked down (CKD) and semi knocked down (SKD) automobile kits during the review period (Figure 2.21).

Construction-allied industries

Dampened demand in local and global markets weighed down construction-allied industries

With a limited fiscal space, the government discontinued almost all subsidized lending schemes including *Mera Pakistan Mera Ghar* from the start of the current financial year. Resultantly, the flow of house building finance shrank to retirement of Rs 1.0 billion during H1-FY23 from Rs 52.7 billion uptick in the same period last year. The growth in PSDP spending also decelerated to 4.5 percent during H1-FY23 from 40.2 percent in the same period of last fiscal year, which led

Growth in Sale Automotbile Products in H1 **Figure 2.20**



Source: Pakistan Automotive Manufacturers Association

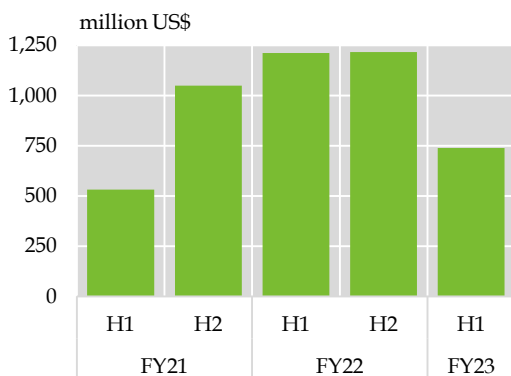
to slowed down activity on large-scale infrastructure projects.

Cement

Downtrend in construction activity translated to lower cement production

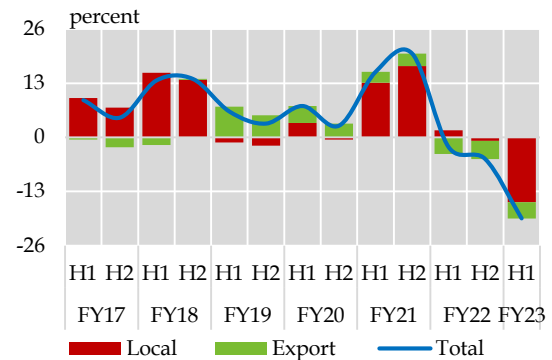
The output in cement sector contracted by 15.1 percent during H1-FY23, compared to 0.92 percent decline in the same period last year. According to All Pakistan Cement Manufacturing Association (APCMA), the decrease in cement production was mainly attributed to lower construction demand as

Imports of CKD/SKD of Automobile Kits **Figure 2.21**



Source: Pakistan Bureau of Statistics

Growth of Cement Dispatches* **Figure 2.22**



*Growth contribution for local and exports dispatches

Source: All Pakistan Cement Manufacturars Association

reflected from 16.9 percent reduction in domestic dispatches during H1-FY23, compared to an expansion of 2.0 percent in the same period last year (**Figure 2.22**).

Furthermore, subdued cement demand in the country's export destinations also brought down cement output. As reported by APCMA, volume of cement exports to countries other than Afghanistan declined by 49.0 percent during the current review period in comparison with 32.5 percent growth in same period last year (**Figure 2.22**).

Apart from devastating flood, the soaring imported coal price owing to Russia-Ukraine war, import constraints on spare parts, tight monetary conditions and lower PSDP spending together with inflationary pressure were the main factors causing lower demand and production of cement during the review period.

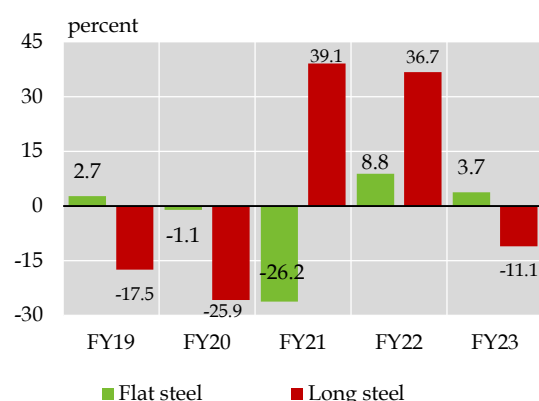
Steel

Global supply chain disruptions Slowed down steel production

The steel sector observed 2.1 percent decline during H1-FY23 as opposed to an expansion

Growth in Steel Sector in H1

Figure 2.23



Source: Pakistan Bureau of Statistics

of 18.4 percent in the same period last year (Figure 2.23). The decline in steel was mainly attributed to long steel, which fell by 11.1 percent during H1-FY23 compared to significant growth of 36.7 and 39.1 percent, in the same period last two years, respectively.

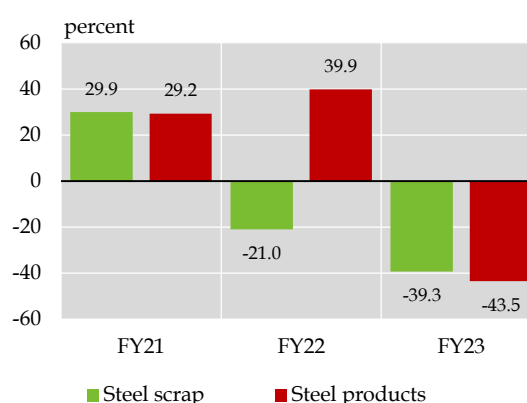
Imported scraps, the basic raw material of steel production, posted 39.3 percent reduction during H1-FY23 compared to 21.0 percent in the corresponding period last year (Figure 2.24). Import constraints on raw material, depreciation of PKR, and rising energy cost along with payments of demurrages on containers carrying steel scrap were attributed as the main factors causing lower production in steel industry. Moreover, as per industry sources, most steel companies saw decline in volumes due to floods in the first two months of H1-FY23.

2.4 Services

The indicators for services sector show a slowdown in activities during H1-FY23, mainly due to the contraction in commodity producing sectors. Within the services sector, the indicators for *wholesale and retail trade* show a slight slowdown in the sector.

Growth in Imports of Steel in H1

Figure 2.24



Source: Pakistan Bureau of Statistics

This slowdown can be majorly attributed to the damages caused by floods, which had adversely impacted the production of important crops – cotton, sugarcane and rice. Other than agriculture, growth in the industrial sector also moderated as evident by the decline in the growth of LSM. Moreover, imports also declined by 18 percent during the H1-FY23, as compared to an expansion of almost 51 percent in the same period last year.

In line with the slowdown in the *wholesale and retail* sector, credit to the sector reported retirement instead of more borrowing. This was majorly driven by the *non-specialized wholesale trade*, which registered retirement of almost Rs 5.7 billion. Another significant reason for this slowdown was the deceleration in borrowing from *the wholesale of solid, liquid and gaseous fuels and related products*, as the demand for fuel remain subdued during H1-FY22

In the *transport and storage* sector, during H1-FY23 POL sales to the transport sector declined by 19 percent as major infrastructure – roads and bridges - sustained damages due to floods (Table 2.9). In

Damages to Infrastructure Table 2.9
roads in km; bridges in number

Province	Roads	Bridges
Balochistan	2,222	58
Punjab	877	15
KP	1,575	107
Sindh	8,389	165
Total	13,115	439

*Cumulative damages from June 14, 2022 to November 11, 2022

Source: National Disaster Management Authority

addition, demand was also dampened by the increase in prices of petroleum products. Furthermore, sales of commercial vehicles also showed a decline due to lower economic activity. These trends are indicative of an overall weakening in the transport sector. Infrastructure damages also impacted the food and accommodation sector by lowering tourism in the flood affected areas as access to major tourist spots remained suspended during most part of H1-FY23.

Unlike other measures, the indicators for *information and telecommunication* point towards a continuation in the increasing trend of both tele-density and broadband subscribers. This increase reflects the higher profitability of the telecommunication sector along with an increased reliance on the locally manufactured cellular devices.²⁸

The 2022 floods also caused significant damages to health and education services (Table 2.10). At least 6,225 education institutions were assessed as fully damaged,

Damages and Losses in Selected Sectors Table 2.10
billion Rupees

Sectors	Damages	Losses
Health	23	7
Education	120	47
Transport & Communications	701	60
Tourism	2	20

Source: Pakistan Floods 2022 Post Disaster Need Assessment Supplemental Report (Government of Pakistan)

whereas, almost 10,980 education institutes were categorized as partially damaged, causing a disruption of teaching services. These damages affected some 94 thousand teachers and 2.6 million enrolled students.

Within school education, primary schools sustained the highest damage, with an 80 percent share of all damaged institutions.²⁹ Other than education, 13 percent of the health facilities were damaged, which in turn disrupted health service delivery.³⁰ This downturn in the services sector is also manifested in the business confidence survey, which reflects the prevalent business sentiment, conducted by State Bank of Pakistan. The results for H1-FY23 indicate a decline in the business confidence (Figure 2.25).

In the banking sector, assets registered an increase of 19 percent. The increase in assets was primarily led by investments and advances (Figure 2.26). Moreover, high interest rates also led to increased profitability (Table 2.11).

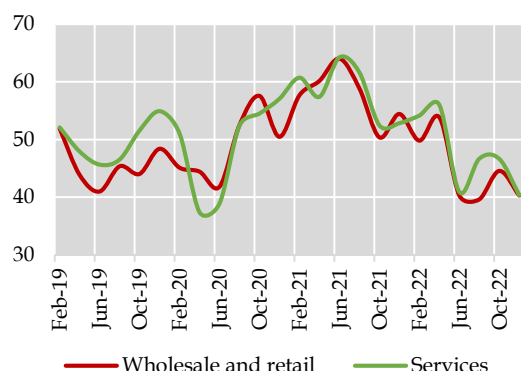
²⁸ Source: Pakistan telecommunication authority (available at: <https://www.pta.gov.pk/en/media-center/single-media/telecom-revenues-rise-to-pkr-694-billion-in-2022-pta-annual-report-110123>)

²⁹ Source: Ministry of Planning Development and Special Initiatives (2022). Pakistan Floods 2022: Post Disaster Need Assessment Supplemental Report. Islamabad: Ministry of Planning Development and Special Initiatives

³⁰ *ibid.*

Services and Wholesale and Retail Sector Confidence Index

Figure 2.25



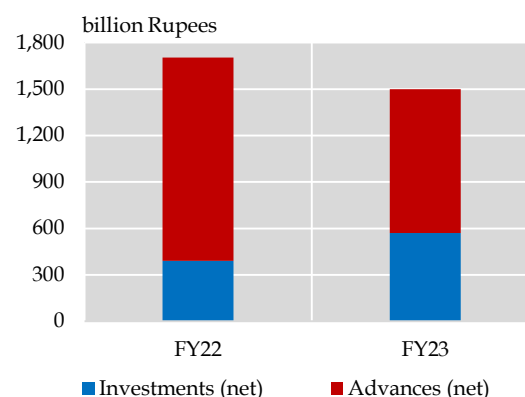
Source: State Bank of Pakistan

2.5 Labor Market

Following the decline in LSM, the industrial employment in both Punjab and Sindh experienced downtrend (**Figure 2.27**). In Pakistan, the combined Punjab and Sindh employment reduced by 0.8 percent during

Composition of Assets in H1

Figure 2.26



Source: State Bank of Pakistan

Jul-Nov FY23 from expansion of 4.4 percent in the corresponding period last year. The labor market data, reported by Punjab Bureau of Statistics (PBOS) and Sindh Bureau of Statistics (SBOS), showed decline in employment in both industrial and services sectors during Jul-Nov FY23 compared to the

Services Sector Indicators

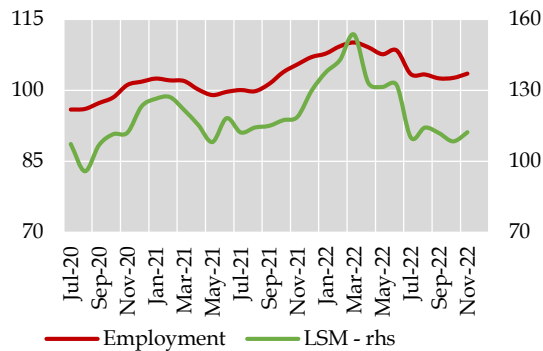
Table 2.11

	H1-FY22	H1-FY23
Wholesale and Retail Trade		
Sectoral credit off take- flow (billion Rupees)	55.4	-2.8
Imports (billion US Dollars)	40.8	31
<i>Growth (percent)</i>	66	-23
LSM (YoY growth in percent)	7.7	-3.7
Agriculture credit disbursements (billion Rupees)	640.8	842
Transport and Storage		
POL sales to transport sector (growth)	11.2	-19.3
Teledensity (percent)	87.1	87.9
Broadband users (million)	109.6	124
Finance and Insurance Activities**		
Assets (billion Rupees)***	30,058	35,795
Deposits (billion Rupees)***	21,719	23,461.4
ROA after tax (percent)	0.96	1.01
ROE after tax (percent)	14	16.9
Profit after tax (billion Rupees)	141.3	210
Infection ratio (end of Dec-2022)	7.9	7.3
General Government Services		
Expenses - general govt & defense^ (billion Rupees)	730.4	865.5

Banking sector only * Stocks, as of end-December 2022 ^Only federal government

Sources: State Bank of Pakistan, Pakistan Bureau of Statistics, Oil Companies Advisory Council, Pakistan Automotive Manufacturers Association, and Ministry of Finance

Industrial Employment* and LSM Indices in H1 **Figure 2.27**



*Punjab and Sindh combined
Source: PBS, PBOS and SBOS

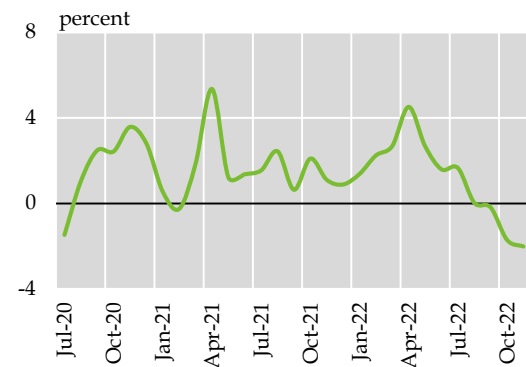
same period last year. In addition, the SBP-IBA BCS and CCS surveys also revealed deterioration in employment sentiments during the current review period.

Besides employment in services and industrial sectors, the gender wise segregation of employment over the years reveals that labor force participation of men remain higher than women across all professions in Pakistan, as reported by PBS in the latest labor force survey 2021-2022.

Box 2.2 briefly analyzes the trends and patterns of female labor force participation in Pakistan.

The industrial sector laid-off workers as output decreased and employment levels in both Punjab and Sindh declined during the current review period. At the same time, SBP-BCS exhibited downturn in sentiments towards employment creation in both industrial and services sectors during H1-FY23. Likewise, deterioration in perceptions about job growth was witnessed in SBP Consumer Confidence Survey (CCS) for the next six months.

YoY Employment Growth in Punjab **Figure 2.28**



Source: Punjab Bureau of Statistics

Punjab

As measured by the industrial employment index, the overall manufacturing sector laid-off workers in Punjab during H1-FY23 compared to last year (**Figure 2.28**). Reported in the Monthly Survey of Industrial Production & Employment in Punjab, jobs creation declined by 0.8 percent during the H1- FY23 compared to 1.4 percent growth in same period last year.

The decline in employment in industrial sector of Punjab was predominantly driven by significant lay-offs in the automobile industry, which dwindled by 21.0 percent during H1-FY23 against a growth of 0.3 percent in the same period last year. The significant decline in employment in the automotive sector corresponded to its production, as evidenced by the industry's output index, which fell by 59.0 percent during H1-FY23 compared to the same period last year.

Similarly, being the second largest sector, employment in food Drinks & Tobacco

Sector-wise Employment Growth in Punjab **Table 2.12**

	H1-FY22	H1-FY23
Food drinks & tobacco	0.6	-6.4
Textiles	1.0	1.3
Leather rubber & plastic	15.6	3.5
Paper & paper board	2.4	1.2
Chemicals & petroleum	-0.7	-0.7
Non-metallic & mineral	5.4	-2.0
Engineering products	0.7	0.6
Automobile	0.4	-19.1

Source: Punjab Bureau of Statistics

industry, was pushed down by dairy and sugar sub-sectors, where employment decreased by 18.5 and 9.2 percent respectively, during H1-FY23 compared with 13.5 and 2.8 percent in the corresponding period last year (Table 2.12).^{31, 32} Moreover, cement sector also followed the negative trend and laid-off 8.8 percent of its workers in H1-FY23 against an extension of 6.3 percent in the last year.

Unlike other sectors, textile industry, being the largest sector, expanded by 0.3 percent during H1-FY23 compared to 0.9 percent growth last year. The registered growth in employment level of overall textile sector was mainly contributed by jute textile sub-sectors during the current review period. The increase in employment in textile sector can be ascribed to the expansion in textile output in Punjab. According to the Punjab Bureau of Statistics (PBOS), the cumulative output, as measured by its LSM index, for

cotton and woolen textile increased by 0.3 and 10.2 percent respectively, during H1-FY23.

Following the textile industry, Employment in the leather Rubber & plastic sector, though decelerated, recorded an expansion by 3.6 percent during H1-FY23 compared with 15.2 percent in the corresponding period last year. The growth in this sector was attributed to footwear sub-sector; which contributed by hiring 12,387 workers on the average during the current period compared with 11,781 persons in the same period last year. This was in line with rise in footwear production, which had expanded to 16.1 million pairs during H1-FY23 from 14.4 million pairs in the corresponding period of last year.

Sindh

Reported by Sindh Bureau of Statistics (SBOS), the latest data from Monthly Industrial Production and Employment Survey (MIPE) revealed that growth in the overall employment in manufacturing sector in Sindh contracted by 3.0 percent during July-Nov, 2022 compared with 6.2 percent growth in the same period last year (Figure 2.29).³³

Beverages, leather tanning, beverages, textile, and automotive sectors mainly drove the deceleration in employment during the current review period. Whereas, wearing

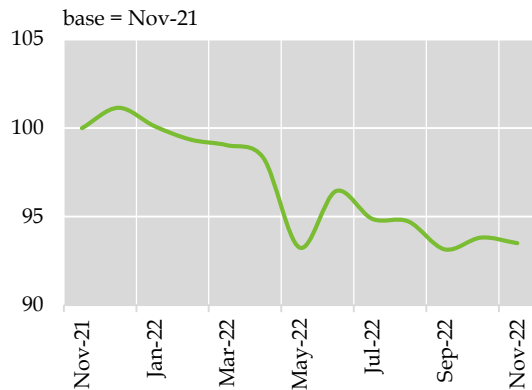
³¹ Due to row over permission to export sugar, the sugar mills in Punjab delayed the sugarcane crushing during the current review period.

³² During H1-FY23, most of the food sub-sectors registered output expansion; however, the Punjab LSM index for sugar, wheat milling and cigarettes decreased by 16.7, 14.1 and 19.1 percent respectively.

³³ It is important to note that due to change in the base year, sectors and sub-sectors, reported by Sindh Bureau of Statistics, the recent employment data tables from November 2021 are no more comparable to the earlier tables. Hence, the growth in employment was calculated for Jun-Nov 2021 and Jun-Nov 2022.

Employment Index in Sindh

Figure 2.29



Source: Sindh Bureau of Statistics

apparel and steel industries recorded improvement in their employment.

Food sector being the second largest manufacturing sector, laid-off 0.5 percent more workers during Jul-Nov FY23 as opposed to hiring 23.6 percent in same period last year. The employment situation in textile sector deteriorated by 3.4 percent during Jul-Nov FY23, against a worthwhile contribution of 17.9 percent in jobs generation in the last year.

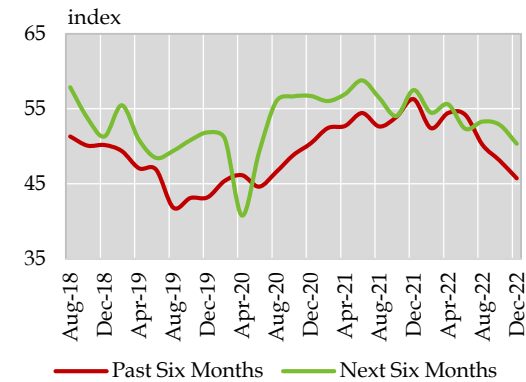
The automobile industry lost 3.9 percent more workers during the Jun-Nov 2022 period. Restrictions on imports of raw material through temporary measures and the inflationary pressure leading to lower demand in the local markets can be attributed as the main factors behind reduction in output and employment in automobile industry during the current review period.

SBP Confidence Surveys

The latest data from SBP Business Confidence Survey (BCS) conducted in December 2022 exhibited deterioration in

BCS Employment Diffusion Index for Industrial Sector

Figure 2.30



Source: State Bank of Pakistan

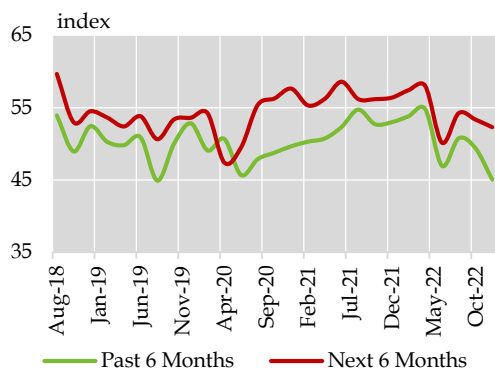
perceptions about overall employment generation during the past and future six months. According to the survey, on average 52.2 percent of respondents were optimistic about job growth during the next six months, down from 55.8 over the same time last year. (Figure 2.30) The data, reported in various surveys, also manifested that on average the diffusion index regarding employment in manufacturing sector dropped to 48.0 and 52.2 respectively for the past and future six months during H1-FY23 from 54.3 and 56.0 in the corresponding period last year.

Similarly, the perception index about employment generation in the services sector on the average deteriorated to 48.4 and 53.3 for the past and future six month respectively during the current review period from 53.5 and 56.2 in the same period last year (Figure 2.31).

Consumer Confidence Survey

Moreover, the outcome of the SBP Consumer Confidence Survey (CCS) highlighted deteriorating expectations about the domestic labor market. The recent round of poll, conducted in January 2023, revealed

BCS Employment Diffusion Index for Services Sector **Figure 2.31**

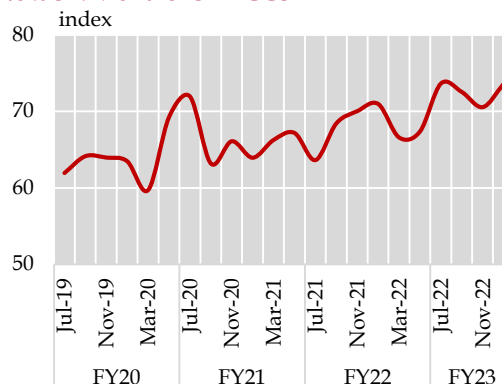


Source: State Bank of Pakistan

that 72.6 percent of respondents had anticipated a rise in overall unemployment over the following six months, compared to 68.3 percent during the same time last year. (Figure 2.32)

Aligned with the declining trend in LSM, the Punjab and Sindh employment surveys along with SBP surveys for employment generation in the past six months revealed deterioration in labor market during H1-FY23 from the corresponding period last year. Moreover, the SBP surveys also reported pessimistic expectations regarding jobs creation in the

Future Unemployment Index for Next Six Months -SBP CCS **Figure 2.32**



Source: State Bank of Pakistan

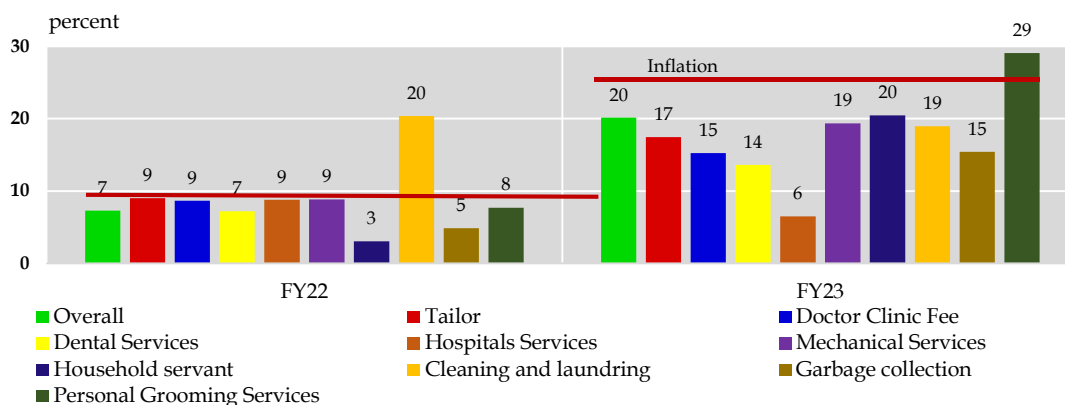
next six months.

Wages

The most recent wage indices released by the Pakistan Bureau of Statistics (PBS) show upward trend in overall wages, which on the average increased by 20.0 percent during H1-FY23 compared to a rise of 7 percent at the same time last year. The growth in wages can be attributed to the surge in inflation which escalated to 25.0 percent on the average during the current review period from 9.8 in the corresponding period last year. (Figure 2.33)

Growth in Wages of Services Sector in H1

Figure 2.33



Source: Pakistan Bureau of Statistics

During H1-FY23, with exception of hospital services, all categories of wages registered significant rise from the same time last year. Wages of personal grooming services recorded an expansion by 29.0 percent

against an increase of 8.0 percent in the last year. Similarly, remuneration of remaining categories of services sector on average doubled during the current review period.

Box 2.2: Trends and Patterns in Female Labor Force Participation in Pakistan

Female labor force participation (FLFP) is a major driver of growth, as women constitute almost half of the working age population, their absence from the labor force results in significant productivity losses. This box aims to briefly discuss the trends and patterns of female labor force employment in Pakistan and explore the barriers restricting entry to the labor force.

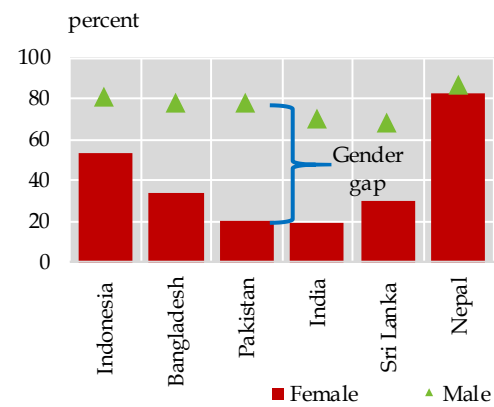
In Pakistan, gender gap in the labor force is one of the highest in South Asia

Globally, the proportion of men participating in the labor force is higher than women - the global labor force participation rate for women is almost 50 percent, whereas for men it is almost 80 percent.³⁴

In line with the global trends, in Pakistan, the FLFP is considerably lower than that of men. The findings from the labor force survey 2020-2021 suggests that almost 44.9 percent of the overall population is in the labor force, out of which, men comprise 67.9 percent, whereas the female labor force participation (FLFP) is only 21.4 percent. Over the time, female labor force participation has increased but despite this increase, Pakistan’s female labor force participation is still one of the lowest among peer economies (Figure 2.2.1).³⁵

Other regional countries like Bangladesh and Indonesia have made significant progress in terms of increasing FLFP. Consider the example of Bangladesh, where female labor force participation is estimated to be 37 percent, the growth in FLFP has mainly occurred on the back of expanding ready-made garment sector.³⁶ This development has played a crucial role in their economy and helped boost exports. Bangladesh has managed to create more paid job opportunities as compared to Pakistan resulting in a higher FLFP.³⁷ Another reason for a higher FLFP in Bangladesh is lower education gaps between men and women.³⁸

Male and Female Labour Force **Figure 2.2.1**



Source: World Bank

³⁴ Source: World Bank, 2022

³⁵ In 2005, FLFP was at 11 percent, whereas, in 2022 it is reported to be at 21.5 percent

³⁶ Source: World Bank (2019). *Female labor force participation in Bangladesh, what do we know? How can we address it in operations?* Washington D.C: World Bank

³⁷ Source: World Bank (2022). *From Swimming in Sand to High and Sustainable Growth*. Washington D.C: World Bank

³⁸ As per BBS labor force survey, 2016-17, In Bangladesh, 66 percent of men and 63 percent of women have completed at least primary education. In Pakistan, as compared to 52 percent of working age men only 35 percent of working age women in Pakistan have completed primary education or above.

Females in the labor force face a lack of occupational diversity³⁹

Most of the women are employed in the agriculture (**Figure 2.2.2**) and non-agriculture informal sector. Women associated with agriculture are mostly involved in the harvesting of crops, farm maintenance, rice nursery transplantation and the most of activities related to the livestock.

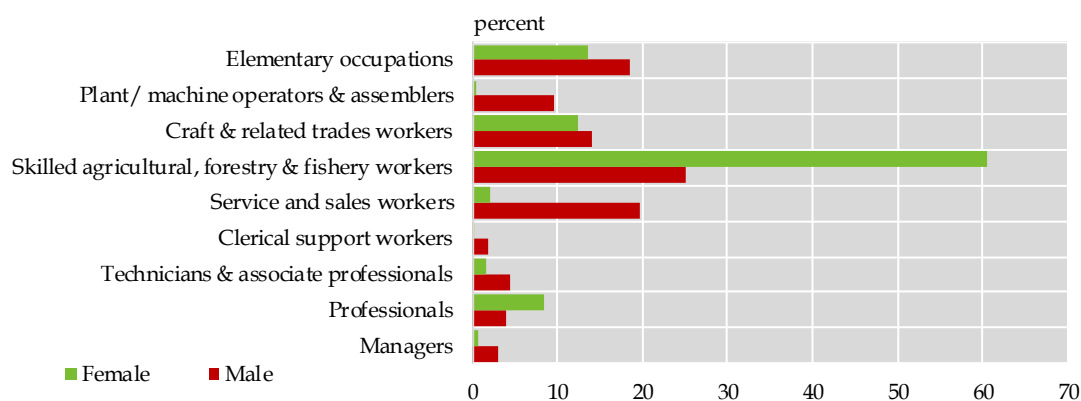
An analysis of the composition of employment in Pakistan reveals that at lower levels of education, urban men are mostly engaged in construction and services, whereas, most urban women are engaged in jobs in the textile and apparel sector or employed as domestic help. However, at higher levels of education, the education sector features as the largest employer for urban women, whereas, urban men work across a varied number of service-oriented jobs, in addition to being employed in the education sector. In rural areas, broadly speaking, occupational choices are limited for both men and women, but the limitations seem to be more pronounced for women than for men in rural areas too.

Wholesale and retail, and community and social services are the key sectors of employment for women in the informal non-agriculture sector. Other than that, as per LFS 2020-2021 almost 29.7 percent of the Females are employed as home based workers.⁴⁰ Despite the home-based workers making a significant economic contribution to the economy, they remain vulnerable to exploitation, longer working hours and lower wages because of a lack of formal contractual agreements.⁴¹

Moreover, according to the Global Wage Report 2018-19 (ILO), on average, women in Pakistan earn 34 percent less than men. However, the average wages of women have grown over time but still remain lower than men (**Figure 2.2.3**). In addition to lower wages, women remain underrepresented in Managerial positions too. As per LFS 2020-2021, only 5.7 percent of employed women hold managerial positions.

Distribution By Various Occupational Groups, 2022

Figure 2.2.2



Source: Labour Force Survey

³⁹ This section borrows heavily from: World Bank (2022). *From Swimming in Sand to High and Sustainable Growth*. Washington D.C: World Bank

⁴⁰ Home Based Workers (HBWs) refer to the category of workers, who are employed in the informal sector and work mostly within their homes or surrounding areas.

⁴¹ Source: International Labor Organization (2017). *Pakistan's Hidden Workers, Wages and Conditions of Home-Based Workers and the Informal Economy*. Geneva. International Labor Organization.

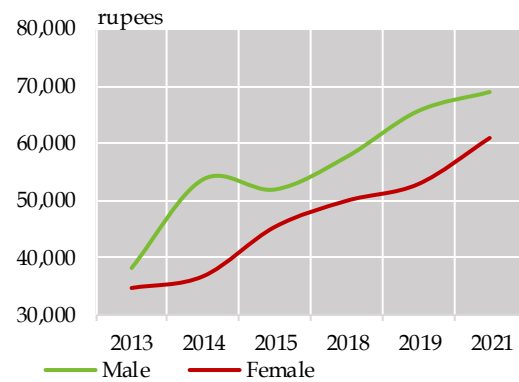
Education and Safe transit options are major drivers of female labor force participation

Women continue to be missing from the labor market due to a number of barriers. The most important is low educational attainment. Participation in the labor force increases as education levels rise.⁴² The gap between male and female education needs to be bridged to ensure equal labor force participation. Another major driver of female labor force participation is access to safe transit options. Women are more likely to accept a job offer if it provides transportation. Reducing mobility constraints has a positive impact on job searching for women, including women who are not searching for jobs to begin with.

Women’s respond positively to women-only modes of transport, suggesting that safety and social acceptability are key constraints.⁴³ The monetary and social and personal costs involved with transport to travel are formidable and should be taken into consideration in planning interventions. Another important driver of FLFP is digital connectivity. Despite improvement, digital connectivity gaps are still widely prevalent as Pakistani women are 49 percent less likely than men to use mobile internet and only one percent of the female internet users reported to use it for work.⁴⁴ Bridging connectivity gaps is crucial for enhancing FLFP.

In conclusion, absence of women from the labor market on this scale not only deprives women of economic opportunities but also translates into lower productivity and lost growth potential for countries. As per estimates, closing the FLFP gap can generate 19.3 million jobs and boost Pakistan’s GDP by almost 23 percent.⁴⁵ Some key reform areas to focus on are availability of safe transportation for women, better documentation of the economy and increasing educational attainment. Legislation to protect workers lacking legal coverage will impact female labor force participation favorably.⁴⁶

Average Wages Over Time (Managers) Figure 2.2.3



Source: Labour Force Survey

⁴² Institute of Labor Economics (2022). *Returns to Education and Female Participation*. University of Bonn. Bonn.

⁴³ Asian Development Bank (2022). *Women’s Mobility and Labor Supply: Experimental Evidence from Pakistan*. Mandaluyong, Philippines: Asian Development Bank Working Paper No. 655

⁴⁴ Groupe Speciale Mobile Association (2021). *Addressing the Mobile Gender Gap in Pakistan*. London: Groupe Speciale Mobile Association

⁴⁵ Source: World Bank (2022). *From Swimming in Sand to High and Sustainable Growth*. Washington D.C: World Bank.

⁴⁶ World Bank’s report titled, “Supporting legal reforms to increase women’s workforce participation in Pakistan” dated July 08, 2022.

3 Monetary Policy and Inflation

Amid multi-decade high inflation outturns and persistent pressures on PKR, the monetary policy committee (MPC) continued the tightening stance and increased the policy rate by a cumulative 225 bps during H1-FY23. As the economy entered the first half of FY23, the risks to macroeconomic stability had increased. Elevated inflation expectations, alongside a range of domestic supply side factors, including scarcity of food commodities amid floods, large depreciation of PKR, temporary restriction on imports, administrative increase in electricity and fuel prices, and second round effect of spike in food and energy prices pushed the national consumer price inflation to 25.0 percent during H1-FY23, from 9.8 percent in the same period last year. Meanwhile, the contractionary measures introduced since the last year weighed down domestic demand during the first half. However, despite the sharp decline in import demand and hence current account deficit, lower than expected realization of external inflows and tightened global financial conditions, kept external account under significant pressure during H1-FY23, leading to a large depreciation in PKR. Hence, the rising interest rates, overall deterioration in macroeconomic environment, and a contraction in domestic demand discouraged private sector credit offtake during H1-FY23. Specifically, the growth in working capital loans weakened considerably, whereas fixed investment loans remained around the last year level.

3.1 Policy Review

The Monetary Policy Committee (MPC) continued the contractionary stance and increased the policy rate by a cumulative 225 bps, amid worsening inflationary pressures and consistent deterioration in external account during H1-FY23. Elevated inflation expectations along with a range of domestic supply side factors pushed the national CPI (NCPI) inflation to a multi-decade high level in H1-FY23, despite the policy-led moderation in the pace of economic activity and softening of global commodity prices. In the external sector, regardless of notable contraction in the current account deficit (CAD), stringent external financing conditions resulted in a significant decline in SBP liquid reserves, which kept PKR under pressure.

Considering the trend of macroeconomic indicators and anticipating strong second round impact of the supply side shock in the shape of energy price increase, the Monetary Policy Committee (MPC) projected average NCPI inflation for FY23 to fall within the range of 18-20 percent

at the time of July 2022 meeting.

Furthermore, the MPC envisaged the real economic growth for FY23 to moderate to a range of 3-4 percent on the back of monetary tightening and commitment of fiscal consolidation in the FY23 budget. The MPC emphasized the need to introduce additional policy measures to contain energy demand to bring trade deficit to a sustainable level. Based on these measures, with a significant retrenchment in import growth, the current account deficit was projected to narrow to around 3 percent of GDP during FY23.

However, the summer flash floods materially altered the macroeconomic outlook. Hence, at the time of November 2022 MPC meeting, the committee made two revisions to these projections after incorporating Post Disaster Needs Assessment of the floods carried out by the government. First, the committee reduced the real GDP growth projection for FY23 to 2 percent from the earlier estimated range. Second, the MPC increased the inflation forecast for FY23 to 21-23 percent from the pre-flood projection of 18-20 percent.

Frequency Distribution of Inflation

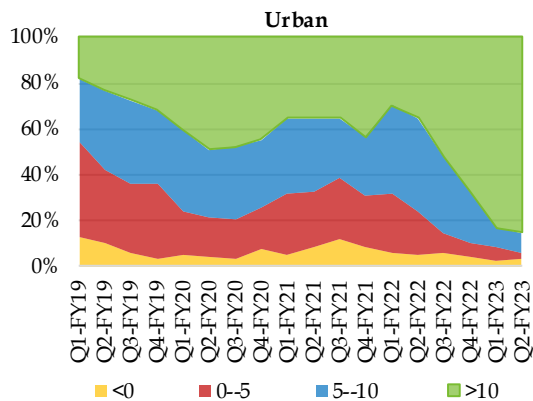
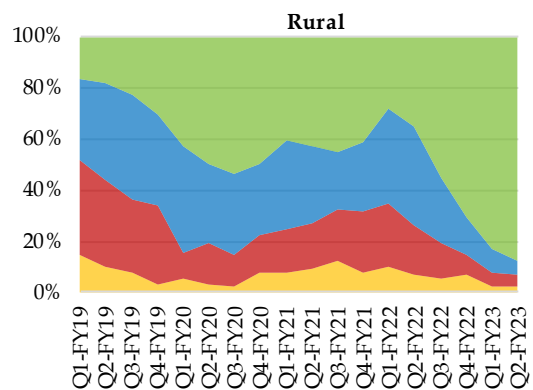


Figure 3.1



Source: Pakistan Bureau of Statistics

NCPI inflation soared to 25.0 percent in H1-FY23, nearly three times greater compared to the same period last year’s level of 9.8 percent. Maintaining the steep uptrend of Q4-FY22, inflationary pressures continued to widen, as more than three-fourth of the entire CPI items witnessed double-digit inflation across rural and urban areas, in both quarters of FY23 (**Figure 3.1**). In addition, the disaggregated data suggests that inflation momentum also remained elevated almost throughout H1-FY23 as indicated by monthly inflation outcomes.

Four factors underpinned the surge in inflation during H1-FY23. First, the flood induced losses to agricultural produce and livestock caused shortages of food commodities and drove a sharp increase in food prices. Particularly, inflation in perishable commodities including fresh vegetables and fruits shot up to around 50 percent across urban and rural segments. Second, since the country was reliant on the imported food commodities, consistent depreciation of PKR further augmented increase in domestic prices of food group,

despite softening global commodity prices. Third, continuing the energy and fiscal reforms under the IMF EFF, the government introduced increase in power tariffs and reinstated Petroleum Development Levy (PDL) on petroleum products, which led to a sharp increase in energy inflation during H1-FY23. Finally, depicting second round effects of food and energy inflation into broader prices and wages, and elevated expectations core inflation rose to double digits during H1-FY23. Importantly, core inflation explained over one-quarter of the urban and rural inflation during H1-FY23. This was despite a notable contraction in domestic demand since the start of FY23.

Amid the ongoing demand compression measures and the fallout of floods, domestic economic activity considerably weakened during H1-FY23. Almost all high frequency demand indicators showed double-digit declines during H1-FY23 on yoy basis – including sales of cement, automobiles and petroleum products (POL). On the supply side, LSM posted a broad based 3.7 percent yoy contraction during Jul-Dec 2022.

The slowdown in demand translated into a sizeable reduction in imports and hence CAD during H1-FY23. However, despite this improvement, domestic uncertainty and tightened global financial conditions kept PKR under pressure during H1-FY23. On the fiscal side, as opposed to the consolidation envisaged in FY23 budget, the budget deficit for H1-FY23 remained around the level seen in the comparable period last year. Lower than target collection of tax revenues and sharp increase in interest payments were mainly responsible for this deterioration.

In this stressed macroeconomic environment, SBP faced the challenge to minimize risks to price stability and financial stability, and to support economic growth. Hence, to prevent a de-anchoring of inflation expectations and provide support to PKR, SBP continued the contractionary stance. The committee noted that a strong, timely and credible policy action was a key to curtail domestic demand, prevent a de-anchoring of inflation expectations and reduce risks to external stability. A delay in introducing the required policy adjustment could lead to greater macroeconomic instability that would have required more aggressive tightening and would be more disruptive for economic growth.

In addition to changes in the policy rate, the rates of EFS and LTFF were also linked to SBP policy rate to strengthen the monetary policy transmission.¹ Furthermore,

the MPC emphasized the need of continued fiscal consolidation to complement monetary tightening for preventing inflation from becoming entrenched and achieving stability in the external account. The committee also suggested the use of introducing administrative measures to minimize supply chain disruptions to contain food inflation.

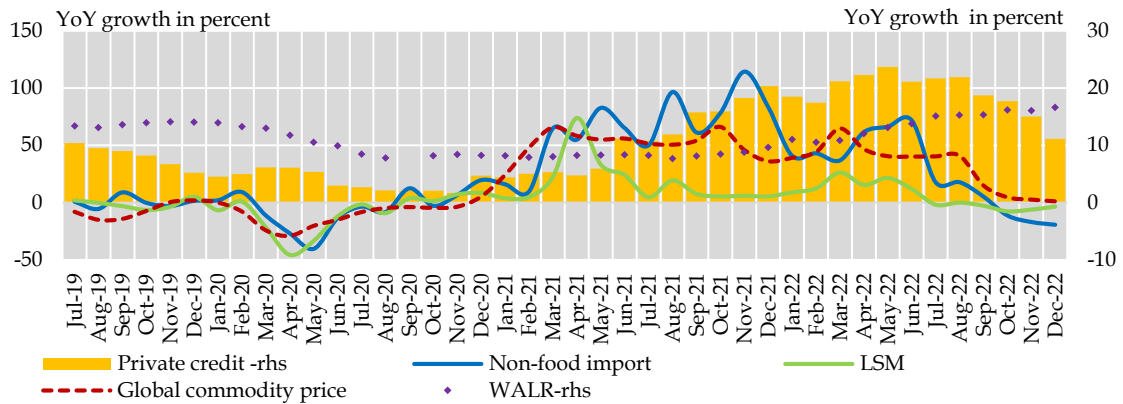
Pakistan's policy experience was in line with the global developments. In response to the multi-decade high inflation, countries across the globe continued to raise policy rates during H1-FY23 (**Box 3.1**), despite concerns about slowdown in global growth.

In line with the increase in policy rate, the weighted average lending rate moved up sharply during H1-FY23. The increase in lending rates during H1-FY23, alongside the lagged impact of demand compression measures introduced since last year, discouraged private sector credit uptake during H1-FY23. Specifically, growth in working capital loans lowered substantially, whereas fixed investment showed a tepid increase during H1-FY23. In addition to demand management measures, import restrictions, which constrained the availability of raw materials to industry, flood-induced disruptions to economic activity as well as slowing global demand also discouraged LSM production and hence borrowing by the industry. Similarly, softening global commodity prices of input items, compared to the sharp increase seen in

¹ In July 2022, SBP linked the rates of EFS and LTFF with policy rates by keeping these rates 5 percent below the policy rate. Mark up rate for financing under EFS (Part-I and Part-II) was increased from 7.5 percent to 10 percent per annum; and mark up rate for financing under LTFF is raised to 10 percent per annum from 7 percent per annum. In December 2022, the mark-up rates of EFS and LTFF were increased to 13 percent from 11 percent per annum by keeping the gap between these rates and policy rate at 3 percent. *Sources:* Infrastructure Housing and SME Finance Department. Circular No. 11 and 13 dated July 07 and December 29th, 2022. Karachi: SBP

Factors Affecting the Private Sector Growth

Figure 3.2



Source: State Bank of Pakistan, International Monetary Fund, & Pakistan Bureau of Statistics

the same period last year (particularly, palm oil and iron ore),

partly explain the moderation in private sector credit during H1-FY23 (Figure 3.2).

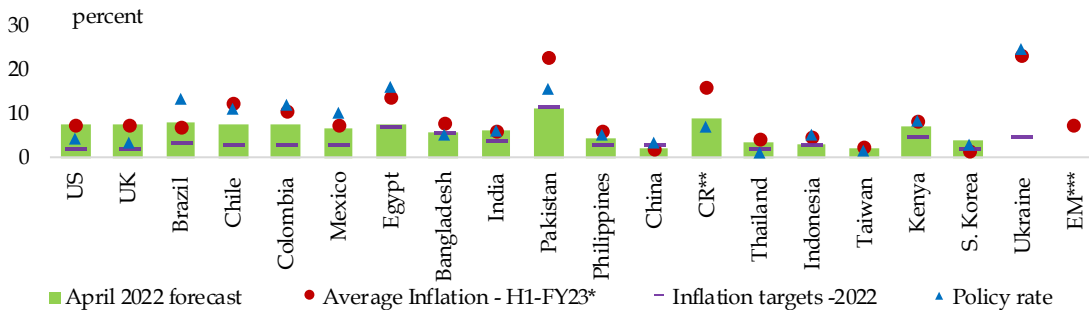
Box 3.1: Rising Inflation and Global Monetary Policy Responses

Global inflation soared to 8.8 percent in 2022 as compared to 4.7 percent the last year. In advanced economies, inflation rose to 7.3 percent on average (as compared to 3.1 percent in 2021) while in emerging and developing market economies (EMDEs), inflation climbed to 9.9 percent in 2022 (in contrast to 5.9 percent in 2021).² Higher food and energy prices mainly propelled the rise in global inflation.

The surge in inflation throughout 2022 was a collective outcome of a number of factors. First, from the demand side, generous policy support to counter the pandemic-led recession resulted in quicker-than

CPI Inflation - Forecast versus Actual

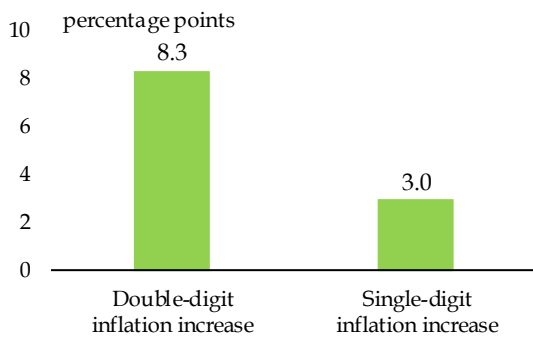
Figure 3.1.1



Note: The countries including US, UK, Bangladesh, Indonesia, Czech Republic, Chile, Colombia, Brazil, S. Africa, Thailand, Mexico, Philippines, India, and Ukraine are the inflation targeting countries. *On fiscal year basis. Jul-Dec covers data up till Nov 2022 for UK. Note: The inflation targets and forecasts are taken for 2022 (calendar year basis) except for India, Pakistan, and Bangladesh (FY23 targets). ** Czech Republic; ***Emerging Markets
Source: Haver Analytics, IMF (WEO April 2022); Jahan 2012; Cbonds; and websites of respective central banks

² International Monetary Fund (2023). *World Economic Outlook*. Washington D.C: International Monetary Fund

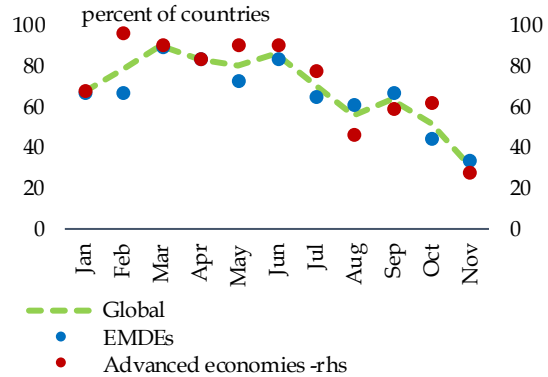
Policy Tightening in 2022 by Inflation Increase in EMDEs Since end-2021



Source: World Bank (GEP, January 2023)

Figure 3.1.2

Share of Economies with Rising Inflation in 2022

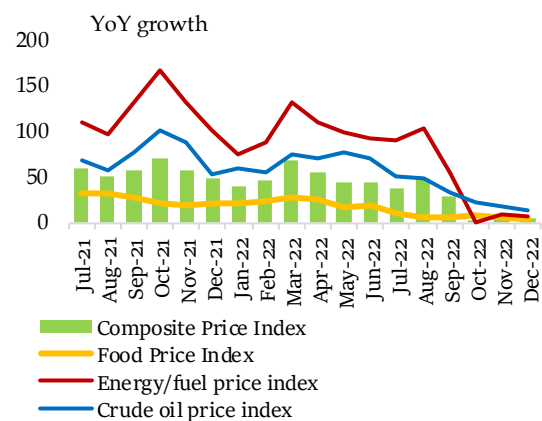


Source: World Bank (GEP, January 2023)

expected global economic recovery. Hence, the broadening supply-demand gaps, along with soaring freight costs gave rise to inflationary pressures in various economies. Second, from the supply side lens, shortages of key commodities (such as wheat and crude oil) followed by Russia-Ukraine conflict hit the food and energy segments that seeped into various sectors of the economy thus augmenting the overall inflation. Specifically, the low income economies where the share of food is highest in the overall inflation basket, witnessed surge in inflation. Third, some countries also experienced supply-demand gap in labor markets, which further added to rising wages and higher input and production costs. Fourth, despite the slowdown in global commodity prices, currency depreciation in many economies amid capital outflows following US hawkish monetary policy stance, intensified the price pressures in local currencies.³ As a result, the levels of actual inflation exceeded both the target of 2022 as well as forecast levels in various economies across the globe during H1-FY23 (Figure 3.1.1).

Rising price pressures prompted monetary policy tightening across advanced economies and most EMDEs. Out of the sample of 71 EMDEs, forty-nine with a single digit inflation since 2021, on average, increased the policy rates by around 3.0 percentage points. However, the twenty-two economies with double-digit inflation raised the interest rates by a cumulative 8.3 percentage points (Figure 3.1.2). Particularly, economies such as Argentina and Ghana with double-digit inflation in H1-FY23, introduced steeper increases.⁴ Furthermore, the developed economies such as UK and US also introduced substantial increase in policy rate in H1-FY23 to arrest inflation. Weakening global demand,

Trend in Global Commodity Prices Figure 3.1.4



Source: International Monetary Fund

³ World Bank (2023). Global Economic Prospects. Washington D.C.: World Bank

⁴ The central bank of Argentina raised the policy rate to 75.0 percent in H1-FY23 (an increase of 1,250 basis points). Likewise, Ghana’s monetary policy decided to lift the policy rate to 27.0 percent with an increase of 800 basis points. Source: Respective central banks.

Trend in Major Food Prices Table 3.1.1

YoY growth	H1-FY22	H1-FY23
Wheat	46	16.8
Dairy	16.3	16.6
Meat	21.6	5.3
Palm oil	54.6	-25.1
Food Index	29.9	4.2

Source: FAO and IMF

tight monetary conditions and easing supply conditions of various commodities pulled down global inflation towards the end of 2022 (Figure 3.1.3).

Amid the slowdown in global growth, commodity prices somewhat eased in H1-FY23 albeit at varying rates. In particular, global crude prices exhibited a sharp slowdown towards the end of 2022 (Figure 3.1.4). Although food prices continued to remain elevated during Jul-Dec 2022, especially the food staples such as wheat and dairy products, the pace of increase was lower (Table 3.1.1).

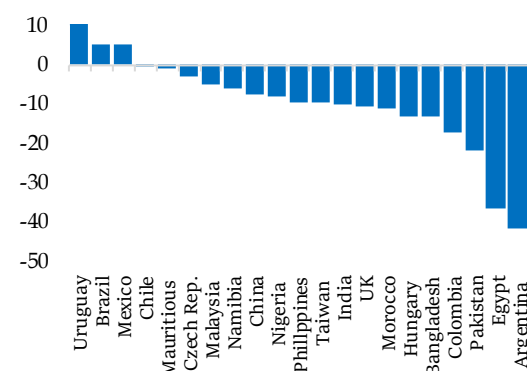
Pakistan witnessed relatively higher inflation compared to various EMDEs, which mainly reflects the impact of domestic factors and larger currency depreciation (Figure 3.1.5). The country has introduced aggressive tightening in policy rate since FY21 to quell inflationary pressures.⁵ However, in the face of supply side issues, inflationary pressures gained further momentum during H1-FY23.

3.2 Monetary Aggregates

The broad money growth slowed to 1.2 percent during H1-FY23 compared to 4.3 percent during the same period last year. Growth in the Net Domestic Assets (NDA) of the banking system, with an increase of Rs 1,489.3 billion, primarily drove the expansion in money supply during H1-FY23. However, a sharp contraction of Rs 1,150.4 billion in the Net Foreign Assets (NFA) mostly offset this impact during the review period (Table 3.1).

On the asset side, higher government budgetary borrowing from the banking system was instrumental in expanding NDA during H1-FY23. Given the large fiscal

YoY Percent Change in Foreign Exchange Rates during H1-FY23 Figure 3.1.5



Source: Haver Analytics

deficit and inadequate inflow of external financing in H1-FY23, net budgetary borrowings from the banking system remained at an elevated level of Rs 457.2 billion compared to Rs 246.8 billion in H1-FY22. Meanwhile, private sector credit also edged up during the review period amid growing inflationary pressures, which drove the demand for credit to meet high input costs.

Meanwhile, despite the improvement in CAD, the dearth of external financing amid uncertainty surrounding the resumption of IMF program and deteriorating macroeconomic conditions, along with scheduled repayments of external

⁵ SBP increased the policy rate by 900 basis points from end-June 2020 (7.0 percent) till end-November 2022 (16.0 percent). Source: State Bank of Pakistan

Monetary Aggregates (P)**Table 3.1**

flow in billion Rupees; growth in percent

	Change in Stock						Growth in H1	
	FY22			FY23			FY22	FY23
	Q1	Q2	H1	Q1	Q2	H1		
M2 (A+B)	149.5	897.9	1047.3	331.6	7.3	338.9	4.3	1.2
A. NFA	-32.8	-194.7	-227.5	-561.7	-588.7	-1150.4	-	-
B. NDA	182.3	1092.6	1274.9	893.3	596.0	1489.3	5.4	5.3
Budgetary borrowing*	76.7	170.0	246.8	551.6	-94.4	457.2	1.6	2.5
SBP	-212.7	185.1	-27.6	441.9	-294.5	147.4	-0.5	2.9
Scheduled banks	289.5	-15.1	274.4	109.7	200.1	309.8	2.7	2.3
Commodity operations	9.5	-24.1	-14.6	-6.9	12.1	5.2	-1.6	0.5
Private sector credit	226.4	816.7	1043.1	86.2	310.2	396.4	13.7	4.3
PSEs	11.6	55.5	67.1	76.9	3.9	80.8	4.8	5.9
Other items net	-141.5	70.8	-70.7	185.6	-153.2	32.3	3.9	-1.6
Reserve money	-195.9	236.7	40.8	-30.3	6.8	-23.4	0.5	-0.3
Currency in circulation	111.6	-41.9	69.7	80.2	34.5	114.7	1.0	1.5
Deposits	35.6	924.0	959.6	248.4	-31.3	217.1	5.5	1.1

P: provisional

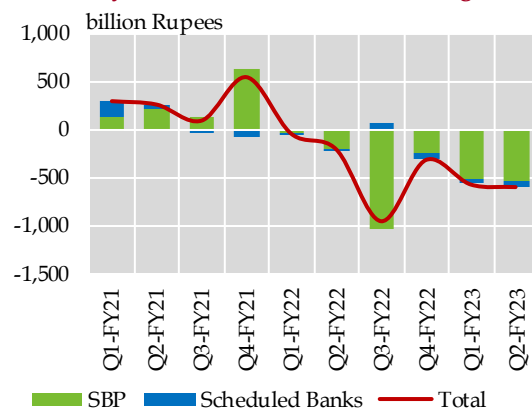
*These numbers are based on accrual basis. They do not tally with the amount of bank financing on cash-basis, as presented in **Table 4.1**.

Source: State Bank of Pakistan

debt resulted in sharp contraction of NFA of the banking system in both the quarters of FY23. Cumulatively, in H1-FY23, the NFA fell sharply by Rs 1,150.4 billion compared to a decrease of Rs 227.5 billion in the same period last year (**Figure 3.3**). The impact mainly came from the contraction in NFA of the SBP as the NFA of commercial banks only posted a decrease of only Rs 116.7 billion compared to Rs 8.0 billion in the corresponding period last year.⁶

As far as the liability side of broad money is concerned, the growth of currency in circulation accelerated to 1.5 percent during H1-FY23 compared to a growth of 1.0 percent in the corresponding period last year, whereas the deposit mobilization slowed from 5.5 percent in H1-FY22 to 1.1

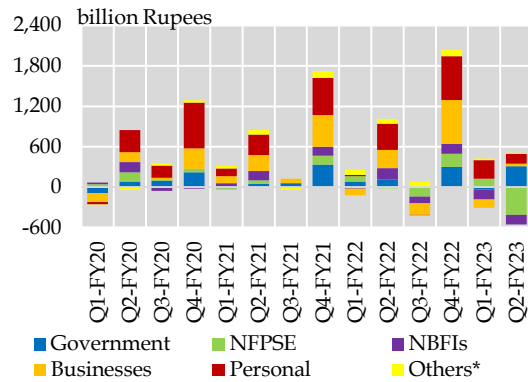
percent during the review period (**Figure 3.4**). On cumulative basis, during H1-FY23, the deposits of commercial banks grew by Rs 217.1 billion, against Rs 959.6 billion in the

Quarterly Flows of NFA **Figure 3.3**

Source: State Bank of Pakistan

⁶ The contraction in NFA of the SBP was on the back of bilateral and multilateral loan repayments during H1-FY23 including Eurobond payments of US\$ 1 billion and some long-term loan repayments of US\$ 1.2 billion.

Quarterly Deposit Flows **Figure 3.4**



* Others include: trusts and non-resident deposits
 Source: State Bank of Pakistan

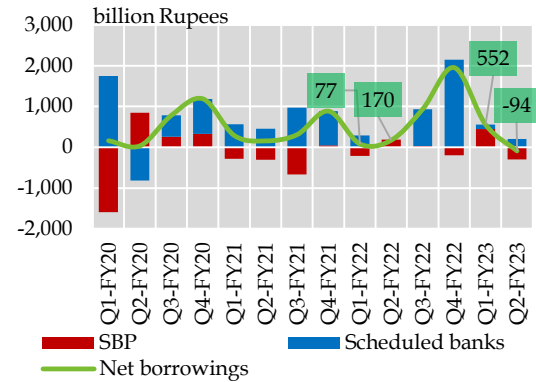
same period last year. However, the overall currency to deposit ratio slightly improved to 38.5 percent, on average, during H1-FY23, from 41.2 percent in the same period last year.

The deceleration in deposit mobilization mainly came from decline in the deposits of NBFIs and private businesses.⁷ As suggested by an uptick in non-bank budgetary borrowings during H1-FY23, NBFIs shifted a portion of their investments portfolio from bank deposits to government securities for higher returns. Meanwhile, in the case of business deposits, the rising cost of borrowing amid persistent inflationary pressures have caused businesses to utilize their existing funds for increased liquidity requirements. On the contrary, personal deposits posted a slight growth on YoY basis during H1-FY23. The increasing macroeconomic uncertainty along with growing inflationary pressures might have

⁷ The deposits of non-financial public sector enterprises (NFPSEs) also posted a decline during H1-FY23, however, this was mainly on account of the reclassification of some NFPSEs as federal government institutes from December 2022 onward.

⁸ During H1-FY23, the government deposits held by the SBP posted a decline of Rs 525.5 billion against Rs 476.9 billion in the corresponding period last year.

Government Borrowings from the Banking System **Figure 3.5**



Source: State Bank of Pakistan

restricted a sharp increase in these deposits despite the favorable interest rates.

Government Borrowings

The government budgetary borrowing from the banking system increased during H1-FY23, compared to the same period last year (**Figure 3.5**). Specifically, in H1-FY23 the government ended up borrowing Rs 309.8 billion from scheduled banks against Rs 274.4 billion in the corresponding period last year. This mainly reflects the impact of an overall large fiscal deficit and the absence of adequate external inflows, which amplified the financing pressure on scheduled banks.

On the other hand, the government deposits held by the central bank posted a considerable decline during the review period, which inched up the government's net liability to the SBP by Rs 147.4 billion.⁸

Primary Auctions

During H1-FY23, the government was able to meet its deficit financing requirements through treasury bills and floating coupon PIBs (PFLs). Cumulatively, the government assigned around 63 percent of the targets on net-of-maturity basis to PFLs, followed by around 37 percent to Ijarah Sukuk. However, for T-bills and fixed rate PIBs, on cumulative basis, the pre-auction targets were slightly lower than their respective maturities during the first half of FY23. Consequently, the government relied on floating rate PIBs and Ijarah Sukuk to meet its financing requirements (Table 3.2).

In the case of MTBs, the government allocated highest pre-auction target to 6M T-bills followed by 12M paper. Contrary to the targets, the market was increasingly keen on investing in 3M T-bills: The offered to target ratio for 3M T-Bills stood at 3.7 times compared to 0.6 times and 0.8 times for 6M and 12M T-bills, respectively. Amid expectations of further monetary policy tightening, the market's participation was heavily concentrated in 3M T-Bills.

As a result, the government made large acceptances of 3M T-bills, to rollover 96 percent of its maturing amount due during H1-FY23 (Figure 3.6). However, in overall

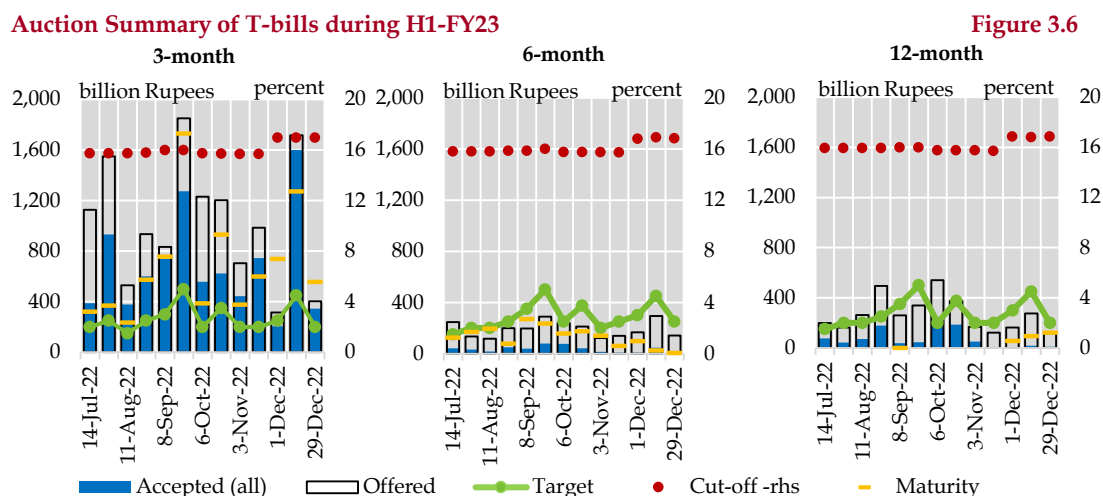
Auction Summary

Table 3.2

	Target	Maturity	Offered*	Accepted
billion Rupees				
Treasury Bills				
3-month	3,500.0	8,857.7	1,2901.2	8,515.3
6-month	3,725.0	1,727.8	2,307.5	422.5
12-month	3,575.0	274.5	2,996.1	839.2
Jul-Dec FY23	10,800.0	10,860.0	18,204.8	9,776.9
Pakistan Investment Bonds				
<i>Fixed Rate</i>				
3-year	350.0	658.0	656.5	238.5
5-year	350.0		1,497.8	689.8
10-year	205.0	474.0	794.6	14.3
15-year	60.0		5.7	0.0
20-year	30.0		0.0	0.0
30-year	30.0		0.0	0.0
Jul-Dec FY23	1,025.0	1,132.0	2,954.5	942.6
<i>Floating ate</i>				
2Y-Quarterly	405.0		1,341.5	846.9
3Y-Quarterly	405.0		1,919.8	1,185.2
5Y-Semi annual	325.0		1,821.6	1,232.3
10Y-Semi annual	325.0		188.8	99.6
Jul-Dec FY23	1,460.0	-	5,271.7	3,363.9
Ijarah Sukuk				
GIS-VRR	505.0		592.3	344.9
GIS-FRR	195.0		83.7	19.9
Jul-Dec FY23	700.0	-	676.0	364.8

*Competitive bids only

Source: State Bank of Pakistan



Source: State Bank of Pakistan

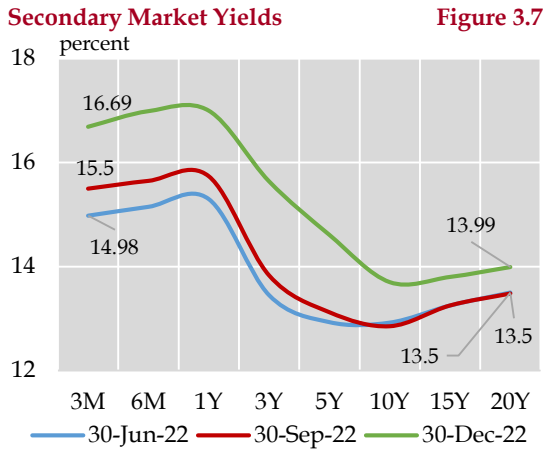
terms, the government mobilized slightly lower-than target amount from short-term MTBs.

In the long-term bonds, the market’s interest remained intact in floating coupon PIBs with offers reaching nearly four-times the amount of pre-auction target. The rising interest rate environment made investment in floaters more lucrative and safe as they provide variable return in line with the interest rate cycle to better hedge against the repricing risk and have medium to long-term maturities. In this backdrop, the government mobilized Rs 3,363.9 billion from PFLs against the target of Rs 1,460.0 billion during H1-FY23. This is likely to have favorable implications for diversifying the outstanding stock of sovereign bonds and curtailing the roll over risk emanating from excessive reliance on short-term MTBs. However, it will increase the government’s debt servicing cost in an increasing interest rate scenario.

On the contrary, in the case of fixed rate PIBs, despite the market’s preference to lock funds in long-term bonds at high interest rates, the government made close-to-target acceptances. On aggregate, the government made issuances amounting to Rs 942.6 billion of fixed coupon PIBs against the target of Rs 1,025.0 billion, leaving almost 68 percent of the offers unmet to avoid high cost of borrowing, as the market offered amounts on significantly higher rates.

Besides, the government continued to raise financing via Shariah-compliant instruments. In line with the trend observed in conventional bonds, the market’s interest remained skewed towards investing in variable rental Sukuk (GIS-VRR). In comparison, the participation remained muted in fixed rental Sukuk (GIS-FRR). Likewise, the government made higher cumulative acceptances amounting to Rs 354.9 billion of GIS-VRR (Table 3.2).⁹

⁹ In line with the government efforts to diversify its debt stock, the share of Ijara Sukuk in domestic debt rose from 5.3 percent in December 2021 to 8.1 percent in December 2022.



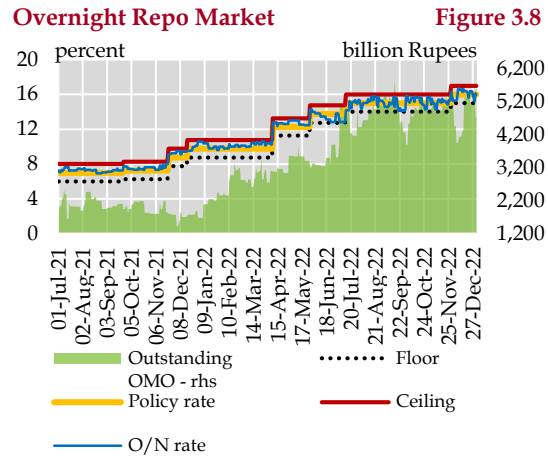
Source: Financial Markets Association of Pakistan

In the secondary market, the short-term yields exceeded the long-term yields, highlighting increased expectations of a rate-cut in the near term. Consequently, the yield curve became downward sloping, with yields falling steeply for longer-tenor bonds (Figure 3.7). The persistently high inflation, external sector weaknesses, global as well as domestic economic uncertainty, and limited financing avenues for the government resulted in pushing the yields of up to one-year papers above the longer-maturity bonds.

In response to a cumulative 225 bps hike in the policy rate during H1-FY23, 3-month yields rose by 171 bps, while for 6M they picked up by 184 bps. However, at the longer end of the curve, the yields for 10-year, 15-year and 20-year bonds rallied by 78 bps, 55 bps and 49 bps, respectively.

Interbank Liquidity

The liquidity conditions in interbank money market remained relatively tight throughout H1-FY23 compared to the corresponding period last year. A sizeable increase in government budgetary borrowings from



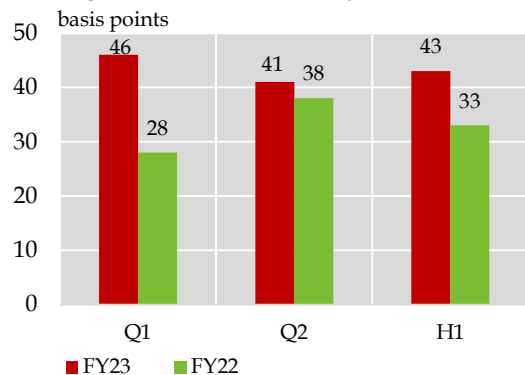
Source: State Bank of Pakistan

scheduled banks augmented the liquidity requirements of the banking system. Meanwhile, amid slower deposit mobilization, commercial banks were not able to meet the additional high liquidity needs.

Keeping in view the pressures stemming from insufficient inflows in the system, the SBP scaled up its OMO injections. As a result, the average outstanding OMOs soared from Rs 1,983.7 billion in H1-FY22 to a high of Rs 4,887.5 billion during the review period (Figure 3.8). Additionally, in order to ease out liquidity pressures in the market, twenty-two longer tenor OMO injections were conducted during Jul-Dec FY23, that included 60-day, 63-day, 70-day, 73-day, and 74-day auctions.

On quarterly basis, the liquidity conditions particularly tightened during Q2-FY23. Pressures emanating from pick up in private sector demand for credit alongside the government’s increased reliance on scheduled banks for its financing needs in the absence of central bank borrowing, affected the liquidity conditions. However, with regard to the supply of funds, the

Average Absolute Deviation of Overnight Rates from the Policy Rate **Figure 3.9**



Source: State Bank of Pakistan

deposits of scheduled banks posted a decline during Q2-FY23, which weighed on the interbank liquidity, resulting in an increase in average outstanding OMO stock to Rs 4,935.9 billion in Q2-FY23 against Rs 4,839.1 billion in the preceding quarter (Figure 3.8).

Meanwhile, the overnight money market displayed signs of higher volatility in H1-FY23. The average absolute deviation of overnight rates from the policy rate increased to 43 bps during the review period compared to 33 bps in H1-FY22 (Figure 3.9). The market's underlying expectations of rate hikes in the light of rising inflationary pressures; growing borrowing needs of the government coupled with greater demand for credit from the private sector resulted in higher volatility in the overnight lending rates.

In addition, the SBP conducted Shariah Compliant Mudarabah Based Open Market Operations for Islamic Banking Institutions (IBIs). The average outstanding stock of

these weekly OMO auctions stood at Rs 490.8 billion during H1-FY23. These injections help the Islamic banking institutions in effectively managing their liquidity. Currently, this mechanism only allows Islamic banks to borrow from the central bank via OMO injections or through the ceiling facility; while OMO mop-ups and floor facility are not available to the market yet.

3.3 Credit to Private Sector

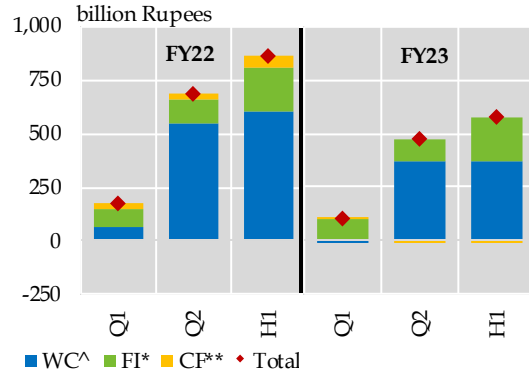
The uptrend in private sector credit witnessed during the previous year, lost steam in H1-FY23. The growth in loans to private sector businesses almost halved to 8.3 percent in H1-FY23, from 15.1 percent in the same period last year.¹⁰ This slowdown was mainly seen in working capital loans, while fixed investment loans posted a marginal increase (Figure 3.10a). In overall terms, most of the expansion in private loans to businesses came in the month of December 2022 (Figure 3.10b).

A range of factors shaped private sector credit dynamics during H1-FY23. First, policy driven moderation in the pace of economic activity pared credit demand of industries. In particular, SBP raised the policy rate by a further 225 bps in H1-FY23 on the heels of a 675 bps increase during FY22. In addition, for strengthening the transmission mechanism of monetary policy, the central bank also linked the rates on EFS and LTFF to the policy rate.¹¹ On the fiscal side, the government significantly scaled back development spending during H1-FY23, which in turn discouraged credit

¹⁰ The growth in credit to private sector decelerated to 4.3 percent in H1-FY23 from 13.7 percent last year.

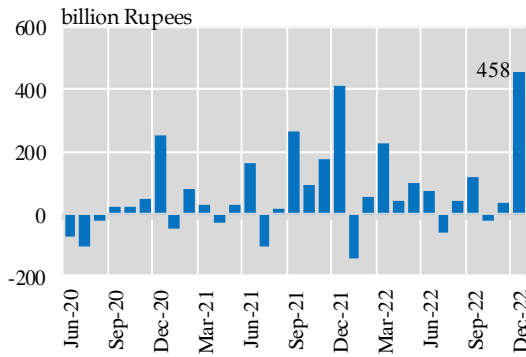
¹¹ SBP raised the rates of EFS (from 3 percent in H1-FY22) and LTFF (from 5 percent in H1-FY22) to over 10 percent in H1-FY23. Source: IH&SMEFD Circular No. 6, 7, 11 and 13 of 2022, State Bank of Pakistan

Quarterly Credit Flows **Figure 3.10a**



^Working capital, *Fixed investment, **Constr. fin.
Source: State Bank of Pakistan

Loans to Private Sector (Monthly Flows) **Figure 3.10b**



Source: State Bank of Pakistan

uptake by construction industry. Amid the ongoing demand compression measures economic activity visibly slackened during H1-FY23, as seen from a decline in LSM production.

Second, in addition to the policy-led slack, domestic demand received a further blow from the disruptions caused by flash floods at the start of the year that caused significant loss of lives, livelihood and infrastructure. Hence, all major high frequency demand indicators including POL, cement, and automobiles sales posted double-digit declines during H1-FY23 (Table 3.3).

Third, following the dearth of external financing SBP and the government took some regulatory measures to contain imports.¹² Furthermore, in June 2022 and August 2022, the government imposed/raised regulatory duties on the import of some luxury and non-essential items.¹³ In addition, amid the deteriorating external

Credit Demand Slows Down Amid Lower Economic Activity **Table 3.3**

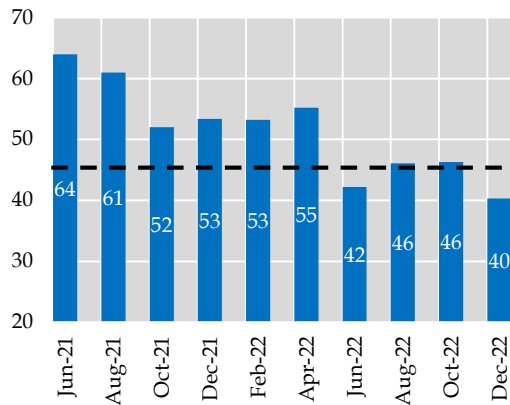
	Jul-Dec	
	FY22	FY23
Cost of production		
Exchange rate* (PKR/USD)	-10.7	-9.5
Electricity tariffs	32.1	31.4
Domestic fuel prices	26.3	70.5
Construction input items	9.9	28.3
Economic activity		
LSM	7.7	-3.7
Electricity (Jul-Nov)	9.0	-8.3
Export volume index (Jul-Sep)	19.9	0.4
Automobile sales	8.6	-34.8
PoL sales	12.1	-19.2
Cement dispatches	1.9	-16.9
PSDP	40.2	4.5
Remittances	11.4	-11.1

* end-period exchange rate, on mark-to-market basis
Source: SBP, MoF, PBS, PAMA, World Bank

¹² Source: EPD Circular Letter No. 09 and 11 of 2022; and BPRD Circular Letter No. 09 and 25 of 2022

¹³ Source: FBR, S.R.O. 966(I)/2022, dated June 30, 2022; and S.R.O. 1571(I)/2022, dated August 22, 2022.

Business Confidence Index **Figure 3.11**



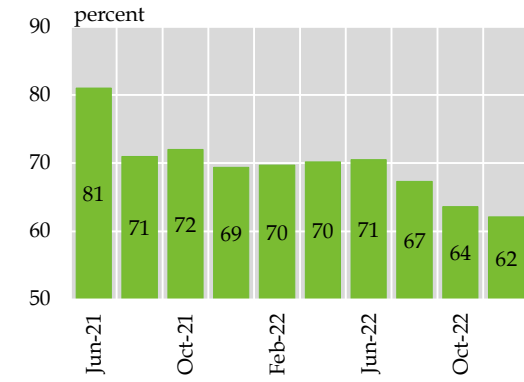
Source: State Bank of Pakistan

liquidity condition of the country, international rating agencies downgraded Pakistan’s credit ratings, which further hampered imports, as foreign banks became cautious in confirming the letters of credit (L/Cs) opened by local banks.¹⁴ The decline in imports of raw material and capital goods discouraged manufacturing operations and hence discouraged credit uptake.

Fourth, the global economic slowdown weighed on manufacturing activity of export sectors. Specifically, with the exception of wearing apparel, exports of almost all textile products edged down compared to last year, which reflected in a notable slowdown in credit uptake by textile sector during H1-FY23. Lastly, some ease in the international prices of input items (particularly, palm oil and iron ore) lowered borrowing needs of few manufacturing businesses, such as edible oil, and basic iron and steel.

¹⁴ Moody’s downgraded its outlook on Pakistan from stable to negative in June 2022, and further downgraded the country’s rating from B3 to Caa1 in October 2022, citing external vulnerability risks and higher debt sustainability risks, in the aftermath of devastating floods that hit the country since June 2022. Source: Moody’s

Current Capacity Utilization of Industry **Figure 3.12**



Source: Business Confidence Survey, State Bank of Pakistan

In overall terms, the unfavorable macroeconomic environment as reflected by a spike in the cost of production, flood-induced disruption in economic activity, uncertainty surrounding the resumption of IMF program and import restrictions amid the dearth of foreign exchange lowered the overall business confidence during H1-FY23. As gauged by the SBP Survey, the overall business confidence remained significantly lower in H1-FY23, compared to a year ago (**Figure 3.11**). The deterioration in business sentiments led various industries to partially close manufacturing operations, which is also evident from a notable decline in capacity utilization during H1-FY23 (**Figure 3.12**).

Low economic activity dampened the demand for working capital loans

Working capital loans rose by Rs 370.1 billion in H1-FY23, compared to Rs 607.7 billion in

Loans to Private Sector Businesses in H1
flow in billion Rupees

Table 3.4

	Total Loans*		Working Capital**		Fixed Investment	
	FY22	FY23	FY22	FY23	FY22	FY23
Private Sector Businesses	860.2	574.5	607.7	370.1	199.8	205.4
Manufacturing	670.9	503.1	527.4	343.2	136.3	161.1
Textile	326.5	188.2	260.1	137.3	63.3	51.8
Rice Processing	70.5	67.9	67.4	68.0	2.9	-0.1
Fertilizers	5.9	53.7	-5.6	45.7	11.5	8.1
Refined petroleum	35.9	42.6	34.4	37.2	1.5	5.4
Cement, lime and plaster	11.6	45.8	10.0	23.6	1.6	22.3
Wearing apparel	22.5	28.8	15.1	23.4	7.0	5.4
Motor vehicles	13.5	14.4	6.9	13.8	6.6	0.6
Paper & paper products	24.8	20.8	17.6	9.5	7.2	11.3
Basic pharmaceutical products	-3.2	10.8	-2.1	9.2	-1.4	1.9
Basic chemicals	16.0	22.8	12.2	8.9	3.7	13.8
Electrical equipment	22.5	14.7	23.1	6.3	-0.5	7.5
Basic iron and steel	57.8	7.4	49.6	4.2	8.2	3.3
Vegetable and animal oils and fats	17.4	3.2	15.4	2.6	1.7	0.6
Sugar	-45.9	-64.6	-45.3	-59.7	-0.6	-4.9
Agriculture, forestry and fishing	30.6	23.5	23.9	9.7	5.6	13.9
Construction	31.1	11.0	0.3	7.5	-3.6	1.6
Mining and quarrying	-0.9	1.2	-2.0	3.5	1.2	-2.3
Telecommunications	20.8	35.0	-13.2	3.4	34.0	31.6
Power generation, transmission and distribution	27.4	2.7	7.6	0.2	19.9	2.6
Real estate activities	3.8	0.6	1.0	0.2	-0.5	0.3
Transportation and storage	11.4	-5.9	8.6	-2.2	2.2	-3.7
Wholesale and retail trade	49.3	-7.4	46.9	-2.8	1.2	-4.6

*Total loans in H1-FY22 and H1-FY23 include net borrowing of Rs 52.7 billion and net retirement of Rs 1.0 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). As fixed investment loans exclude construction financing; therefore, in this table, total loans may not be equal to the sum of working capital and fixed investment loans. ** Working capital includes trade financing

Source: State Bank of Pakistan

the same period last year (Table 3.4). The disaggregated analysis shows that around 80 percent of this increase came solely in December 2022. This is partially attributed to the seasonal borrowings by rice processing and sugar businesses. Specifically, sugar firms resorted to bank financing in December

2022 due to a delayed start of crushing season than last year.¹⁵ In addition, fertilizer sector increased borrowings in order to finance the import of fertilizers, as reflected by a fivefold increase in quantum imports of fertilizers in December 2022, over last year.

¹⁵ After a persistent retirement of Rs 123.4 billion working capital loans during Jul-Nov FY23, sugar-manufacturing businesses availed Rs 63.7 billion loans in December 2022.

Lower external demand along with import restrictions trimmed textile sector's loan offtake

Although textile sector dominated the overall borrowings, the sector posted a relatively lower offtake of Rs 137.3 billion during H1-FY23, compared to Rs 260.1 in the same period last year. Three main factors explain this decline. First, the global economic slowdown amid inflationary pressures and rising cost of living has also affected the demand for Pakistan's textile products, as reflected by lower export volumes of major textile products during H1-FY23 (**Chapter 5**). Second, the summer flash floods induced significant damage to crops. In particular, according to preliminary estimates, cotton crop production fell by 24.7 percent during FY23, which constrained the availability of domestic cotton for textile industry.^{16, 17} Sluggish global demand and low domestic cotton availability led textile sector to partially close manufacturing units.¹⁸ Hence despite a 23.2 percent YoY increase in the domestic cotton prices, working capital requirements of the sector during H1-FY23, remained lower than last year.¹⁹ Lastly, in order to further improve the monetary policy transmission, SBP linked EFS rates with the policy rate, raising the rate of EFS from 3 percent during H1-FY22 to over 10 percent in H1-FY23. Consequently, textile businesses retired Rs 10.4 billion loans under EFS in H1-

FY23, compared to an offtake of Rs 43.8 billion last year.²⁰

Rising cost of production along with worsening financial positions raised borrowing needs of few sectors

The deteriorating macroeconomic environment dented financial position of various businesses. Amid weakening domestic demand, a number of industries such as fertilizers, refined petroleum and automobiles saw piling up of inventories that weakened their cash flow positions. Sluggish sales together with rising cost of production eroded profitability of these sectors (**Figure 3.13**). Hence, deteriorating financial indicators led these businesses to resort to bank financing to finance their working capital needs.

Multifaceted issues including government fiscal constraints, impact of demand management policies, rising cost of construction inputs, weakening real incomes and flash floods suppressed construction activity in both public and private sectors during H1-FY23 (**Figure 3.14**). Hence, local cement dispatches fell by 16.9 percent on YoY basis during H1-FY23, which led to piling up of inventories in the sector.²¹

Furthermore, cement production witnessed 15.1 percent decline during H1-

¹⁶ Source (cotton production data): Federal Committee on Agriculture

¹⁷ Textile manufacturing declined by 13.1 percent YoY in H1-FY23. Source: PBS

¹⁸ For details, see Interloop Limited's Half Year Report for the period ended December 31, 2022.

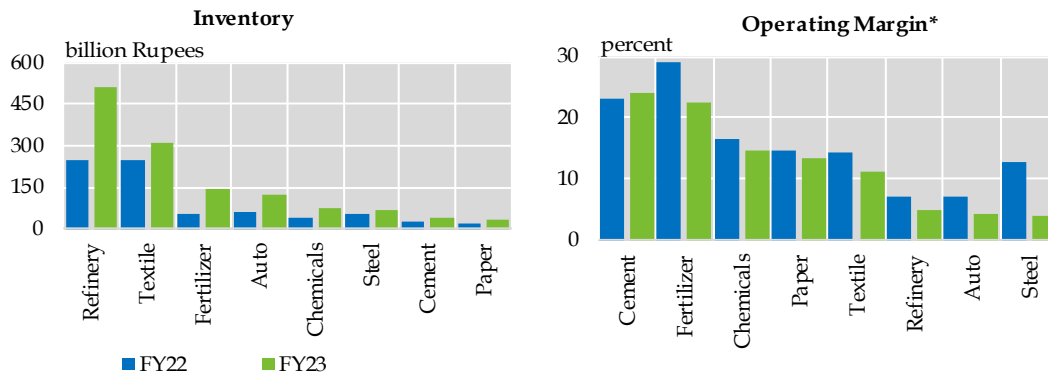
¹⁹ Source: Karachi Cotton Association.

²⁰ The mark-up on EFS was increased in April 2022 (5.5 percent), May 2022 (7.5 percent), July 2022 (10.0 percent), November 2022 (11.0 percent), and December 2022 (13.0 percent). Source: IH&SMEFD Circular No. 6, 7, 11 and 13 of 2022, State Bank of Pakistan

²¹ Cement sector's inventories jumped by around 69 percent YoY in Q1-FY23.

Selected Financial Indicators of Major Private Sector Businesses (Jul-Sep)

Figure 3.13



*Operating margin = operating profit/sales

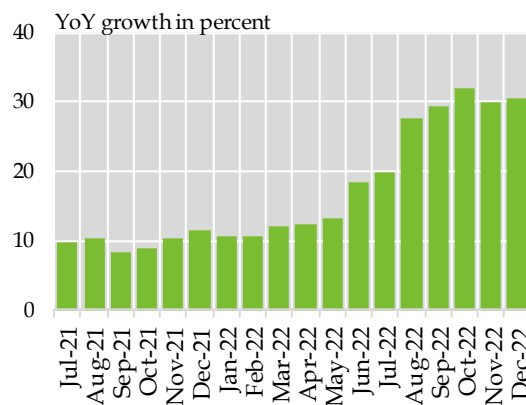
Source: SBP - Quarterly financial statement analysis of selected non-financial listed companies, SBP staff calculation

FY23, over the same period last year. Despite the decline in production, borrowing by cement sectors rose to Rs 23.6 billion during H1-FY23, compared to an offtake of Rs 10.0 billion in the same period last year. A general increase in cost of production amid rising fuel, power and coal prices contributed in raising the sector’s borrowing needs.²²

Likewise, fertilizer sector borrowed Rs 45.7 billion in H1-FY23, compared to a net retirement of 5.6 billion, a year earlier. The cash flow constraints stemming from lower sales and inventory buildups induced many firms to leverage during the period.²³ In addition, a 7.4 percent YoY increase in DAP prices in the international market, coupled with the depreciation in the Pak rupee jacked up firms’ short-term financing requirements, despite 2.0 percent decline in fertilizer manufacturing during the period (Figure 3.15).

With regards to refined petroleum, the impact of higher oil prices in the international market, along with PKR depreciation seems quite dominant in the increased borrowings by petroleum refineries. In addition to this, lower demand, increase in fuel prices and overall economic slowdown led to the sector’s inventory buildup.²⁴ Consequently, the sector

Prices of Construction Input Items Figure 3.14



Source: Pakistan Bureau of Statistics

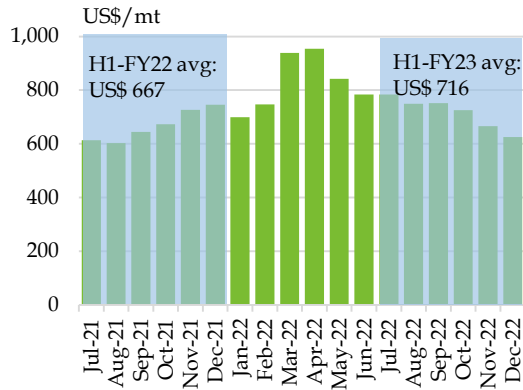
²² Coal prices in the international market rose by 103.6 percent YoY during H1-FY23. Source: International Monetary Fund

²³ Fertilizer sector’s operating profit declined by around 29 percent YoY during Q1-FY23. Source: State Bank of Pakistan, Financial Statements Analysis of Non-Financial Listed Companies for September 2022

²⁴ POL sales declined by 19.2 percent YoY in H1-FY23.

International DAP Prices

Figure 3.15



Source: World Bank

borrowed Rs 37.2 billion in H1-FY23, slightly higher than Rs 34.4 billion offtake during the same period last year.

Borrowings by sugar and rice processing firms followed seasonal pattern

Borrowings by the rice processing firms remained around the last year’s level. While the borrowing in H1-FY22 was attributed to higher production and exports of rice, this time around, rice production and quantum exports posted a YoY decline of 12.3 percent and 23.0 percent, respectively.

The lower production pushed up the rice WPI by 27.7 percent YoY in H1-FY23, which propped up the borrowing needs of rice processors during the review period.

On the other hand, after posting the seasonal loan retirements by the sugar sector in Q1-FY23, the sector resorted to bank financing in the subsequent quarter. However, offtake in Q2 was unable to offset loan retirements in the preceding quarter. On a cumulative

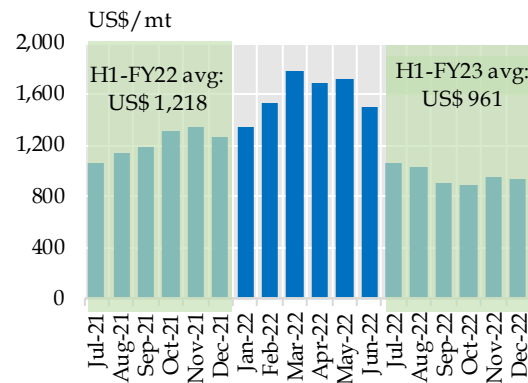
basis, sugar sector retired Rs 59.7 billion in H1-FY23, compared to a net retirement of Rs 45.3 billion last year.

Sluggish demand and declining production restricted borrowing by iron & steel, basic chemicals and paper & paper products

The working capital borrowing of iron and steel firms rose only by Rs 4.2 billion during H1-FY23, compared to an increase of Rs 49.6 billion during the same period last year. An overall slowdown in the construction activity tapered off the demand for construction-allied sectors, including iron and steel. This is in line with a marginal 4.5 percent rise in PSDP spending during H1-FY23, compared to a growth of 40.2 percent last year. Furthermore, import restrictions impeded the availability of raw material for the industry and discouraged steel manufacturing during H1-FY23,²⁵ which also explain the sector’s muted demand for working capital loans. In addition, a decline in prices of base metals in the international

International Palm Oil Prices

Figure 3.16



Source: World Bank

²⁵ Steel manufacturing declined by 2.1 percent on YoY basis during H1-FY23, whereas import quantum of iron and steel products dipped by 40.3 percent YoY in this period.

market also contributed in lowering the borrowing needs of iron and steel sector.²⁶

Apart from iron and steel, borrowings by paper and paper products and basic chemicals sectors remained lower than last year. The underlying factor is 2.8 percent and 1.1 percent YoY decline in the production of paper and board and chemicals during H1-FY23, which reduced the borrowing needs of these sectors.

Some ease in input prices lowered borrowing needs of edible oil sector

Another drag to working capital loans came from relatively lower offtake by edible oil manufacturing businesses. Borrowings by the edible oil sector dropped to Rs 2.6 billion in H1-FY23, compared to an offtake of Rs 15.4 billion in the same period last year. Weakening edible oil prices in the international market leading to a notable deceleration in the unit value of edible oil imports mainly explain the sluggish credit offtake in this sector (**Figure 3.16**).

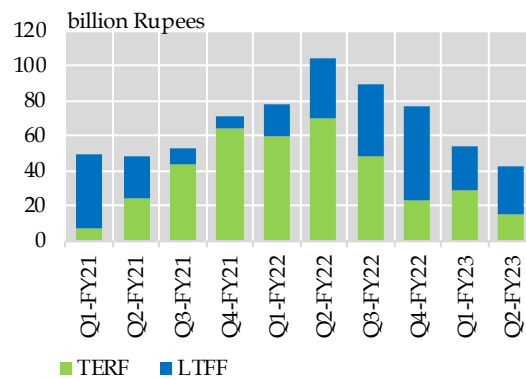
Fixed investment loans remained intact

The borrowings under fixed investment loans were Rs 205.4 billion in H1-FY23, slightly higher than the offtake of Rs 199.8 billion last year. The increase was despite a slowdown in the disbursement of SBP’s concessionary financing schemes (LTFF and TERF), which almost halved in H1-FY23, compared to last year (**Figure 3.17**). Two factors explain the lower disbursements.

First, SBP linked LTFF rates with the policy rate in order to further improve the monetary policy transmission, raising the rate of LTFF from 5 percent during H1-FY22 to over 10 percent in H1-FY23.²⁷ Second, the disbursement under TERF remained significantly lower in H1-FY23, compared to the same period last year. This is because of the fact that this scheme had matured in March 2021, after which no further financing limits were available. Out of the approved amount, bulk of the disbursements had been already made by end-June 2022.²⁸

It is pertinent to mention that beside capacity expansion, some of the sectors including chemicals, fertilizers, cement, paper and paper products have borrowed long-term loans for balance sheet re-profiling, owing to deteriorating financial positions. Basic chemicals borrowed Rs 13.8 billion in H1-FY23, compared to an offtake of Rs 3.7 billion last year. The increase is explained by higher borrowings by a leading chemical

Gross Disbursements under LTFF & TERF **Figure 3.17**



Source: State Bank of Pakistan

²⁶ During H1-FY23, the prices of base metals dropped by 26.5 percent YoY, in the international market. Source: World Bank

²⁷ Source: IH&SMEFD Circular No. 6, 7, 11 and 13 of 2022, State Bank of Pakistan

²⁸ Out of the total approved amount of Rs 436 billion under TERF, Rs 383 billion (around 88 percent) were disbursed by end-December 2022.

manufacturer during Q2-FY23 for balance sheet re-profiling, beside capacity expansion. On the other hand, paper sector borrowed Rs 11.3 billion in H1-FY23, compared to an offtake of Rs 7.2 billion last year, as paper and paperboard manufacturers resorted to bank financing for capacity expansion, up-gradation of paper & board machinery and rescheduling their loans.

Within the manufacturing sector, textile businesses dominated in the fixed investment loans by borrowing of Rs 51.8 billion during H1-FY23, compared to an offtake of Rs 63.3 billion last year. Textile businesses borrowed long-term loans in order to enhance production capacity, besides rescheduling their loans.

Cement was the second biggest user of fixed investment loans in the manufacturing sector after textile, as it increased borrowings by Rs 22.3 billion during H1-FY23, compared to Rs 1.6 billion last year. The entire increase was concentrated in Q1-FY23, as a major listed cement manufacturer resorted to bank financing for capacity expansion, which includes investing in a cement plant in Mianwali district and another in Haripur district of KP. Another listed firm borrowed for capacity expansion, and investing in solar power projects at its plants in KP and Sindh provinces for cost saving purpose by reducing the reliance on costlier fuel.

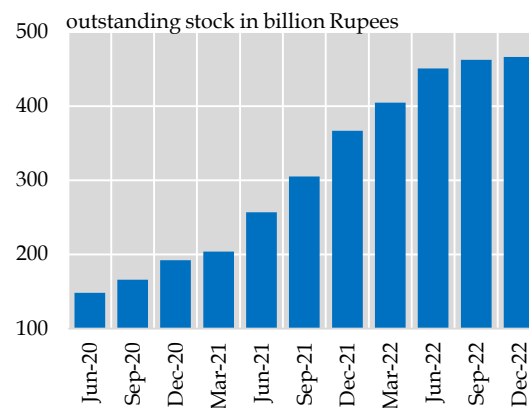
Among non-manufacturing entities, the telecommunications sector dominated by availing long-term loans amounting Rs 31.6 billion during H1-FY23, compared to an

offtake of Rs 34.0 billion last year. The increase represents syndicate financing facility availed by a major telecom firm for the purpose of equity injection into its wholly owned subsidiary, during the review period.

Net retirement in construction financing amid slowdown in construction activities

The vibrancy in construction activities witnessed in FY22 on the back of support measures introduced by government and SBP lost momentum even before H1-FY23 (**Figure 3.18**).²⁹ Construction financing posted net retirement of Rs 1.0 billion in H1-FY22, compared to an offtake of Rs 52.7 billion last year. Three factors underpin the sluggishness in construction activities. First, a rise in cost of inputs affected the demand for construction-allied sectors, as supported by 28.3 percent YoY jump in prices of construction input items during H1-FY23. Second, policy measures such as temporary halt in fresh disbursements under the 'Mera

Housing and Construction Finance Figure 3.18



Source: State Bank of Pakistan

²⁹ Beside government's incentive package for the construction sector, SBP announced targets for banks in July 2020 to increase their housing and construction finance portfolio. For details, see Chapter 3 of SBP's Annual Report FY22 on the State of the Pakistan's Economy.

Consumer Financing

flow in billion Rupees

Table 3.5

	H1-FY22	H1-FY23
Total loans	104.8	-2.6
House building	40.2	14.2
Credit cards	10.1	13.8
Personal loans	7.3	0.2
Consumers durable	1.7	-0.5
Auto loans	45.5	-30.4

Source: State Bank of Pakistan

Pakistan Mera Ghar' scheme, and suspension of SBP's targets for housing and construction contributed to waning demand for construction financing.³⁰ Third, heavy floods and rising domestic policy uncertainty also dampened the demand for construction financing.

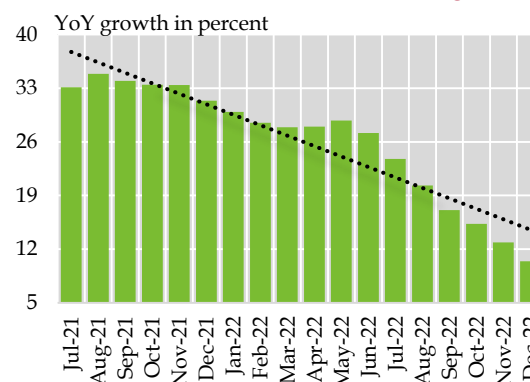
Consumer financing dwindled

Consumer financing posted a net retirement of Rs 2.6 billion in H1-FY23, compared to an offtake of Rs 104.8 billion last year (Table 3.5). The major drag came from automobile loans, which posted a net retirement of Rs 30.4 billion in H1-FY23, compared to an offtake of Rs 45.5 billion a year earlier. Besides higher interest rates, the decline is due to the lagged impact of SBP's macro-prudential measures aiming to moderate the domestic demand in the economy by slowing the overall import growth in general, and automobile imports in particular to support the country's balance of payments position.³¹

³² In addition, the government increased federal excise duty (FED) on locally

Consumer Loans

Figure 3.19



Source: State Bank of Pakistan

manufactured or assembled cars during January 2022.³³ The lag impact of regulatory measures was visible in the overall slowdown in consumer financing (Figure 3.19). Furthermore, following the increase in cost of production, automobile manufacturers have introduced multiple increases in car prices since last year, which further slumped vehicle's demand. On the other hand, raw material availability issues led to drastic reduction in automobile production during H1-FY23. The combination of these factors pulled down auto financing during H1-FY23.

Other than auto loans, slowdown in house building loans also contributed to the contraction in consumer loans during the review period. Amid the sluggishness in construction sector, house-building segment borrowed Rs 14.2 billion during H1-FY23,

³⁰ Source: IH&SMEFD Circular Letter No. 08 of 2022, State Bank of Pakistan

³¹ SBP policy rate increased by 900 bps during September 2021 to December 2022.

³² These measures 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. Source: SBP press release, dated September 23, 2021

³³ In January 2022, the FED was raised to 2.5 percent on up to 1300cc cars, 5 percent on 1301-2000cc cars, and 10 percent on greater than 2000cc cars. Source: www.fbr.gov.pk/Categ/Federal-Excise-Act/346

compared to an offtake of Rs 40.2 billion last year.

3.4 Inflation

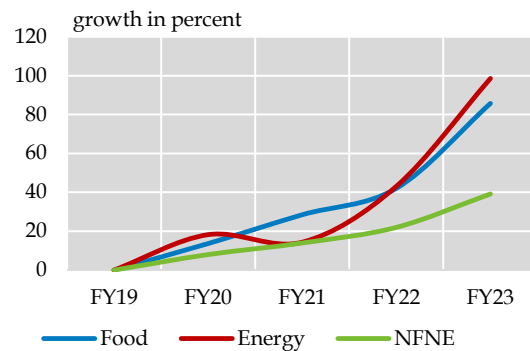
The NCPI inflation rose to a multi-decade peak of 25.0 percent in H1-FY23 compared to 9.8 percent during the same period last year, with inflation in rural areas being higher than in the urban. In terms of composition, while food inflation remained the major driver of NCPI inflation, the core inflation also edged up followed by energy inflation in H1-FY23. Following the global commodity super-cycle, NCPI inflation has been on a sharp uptrend since last year. To put things in perspective, the domestic factors further augmented the impact of global supply shock pushing the food and energy prices above the pre-pandemic level by around 90 percent during H1-FY23 (**Figure 3.20**).

While domestic demand showed visible slowdown, a confluence of supply side factors compounded inflation dynamics during H1-FY23. First, the outbreak of large-scale flash floods in July 2022, inundated a large part of the country, and inflicted heavy losses to agriculture produce that caused supply shortages in the food market and further exacerbated the effect of higher global commodity prices. Second, continuing the fiscal and power sector measures, the government introduced increase in electricity tariffs and imposed PDL on POL products that lifted energy inflation during H1-FY23 (**Figure 3.21**).

Third, despite a sharp contraction in current account deficit during H1-FY23, amid the uncertainty surrounding the resumption of

Inflation Trends during H1 (Urban)

Figure 3.20



*FY19 is taken as base year.

Source: Pakistan Bureau of Statistics

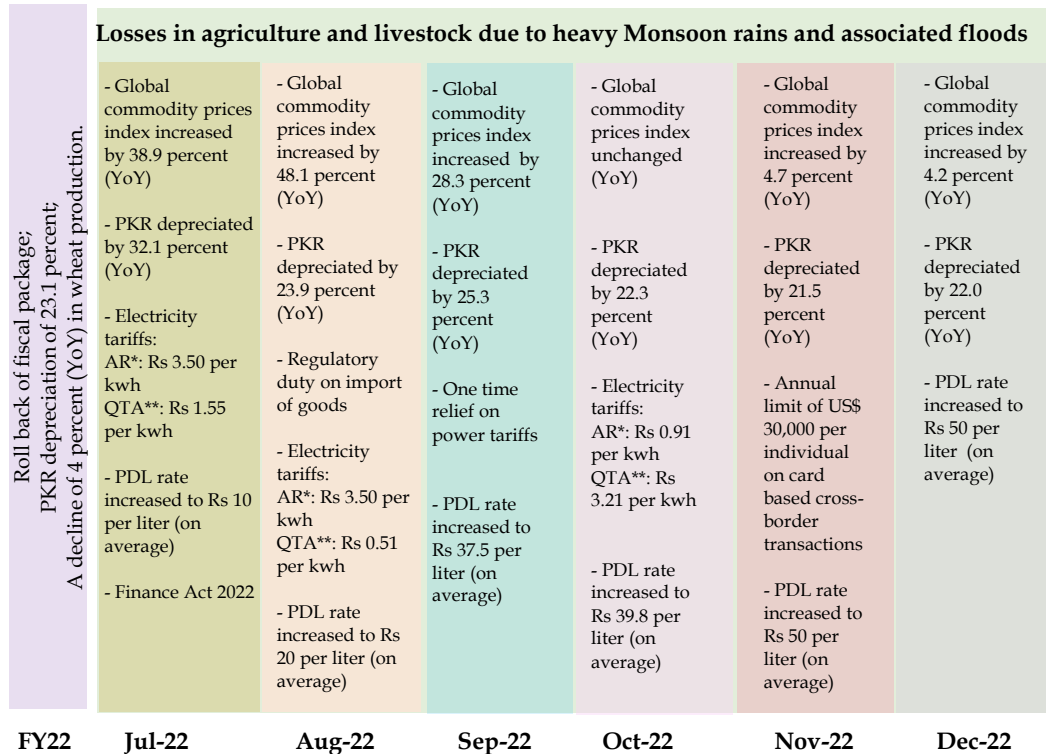
IMF EFF program, PKR depreciated by 24.1 percent during H1-FY23.³⁴ This along with the lagged impact of 23.1 percent PKR depreciation in FY22, fueled imported inflation. Fourth, the temporary restrictions on imports, raised concerns about continued domestic supplies of various commodities which further stoked inflationary pressure during this period. Finally, the sharp increase in food and energy prices also seeped into broader prices, wages and inflation expectations that contributed to a large increase in core inflation during H1-FY23, despite sluggishness in domestic economic activity. In addition, few budgetary measures such as increase in tax rates and minimum wage rate also partly contributed to NFNE inflation during H1-FY23.

Food inflation registered at 30.7 percent during H1-FY23 - more than three times the average inflation recorded in the similar period of last five years. Core segment recorded a double-digit inflation since FY13. Similarly, the inflation in the energy group

³⁴ On average, the PKR depreciated by 24.1 percent in H1-FY23 on YoY basis, as compared to around 3.5 percent depreciation in same period last year.

Supply Side Interruptions

Figure 3.21



* Annual re-basing; **Quarterly tariff adjustment

Source: SBP, PBS, IMF, NEPRA, and MoF

elevated to 38.8 percent during H1-FY23 against 25.1 percent a year ago. Nonetheless, the energy inflation slowed down in Q2-FY23 after rising sharply in Q1-FY23 (Figure 3.22).

Reflecting these developments, the inflation expectations of both consumers and businesses increased as gauged by SBP-IBA Consumer Confidence Survey (CCS) and Business Confidence Survey (BCS) (Figure 3.23). Households' perceptions about expected inflation mainly track the trend in

energy prices.³⁵ In addition, the likely course of current and expected food, non-food and non-energy prices, employment situation, interest rates and household income also have a bearing on these expectations. As regards the business confidence surveys, these depict the expectations of the business community regarding current and expected economic conditions and average exchange rates, employment, average selling price, financial conditions, and demand.^{36, 37} A

³⁵ H. Abbas, S. Beg, and M.A. Choudhary (2015). Inflation Expectations and Economic Perceptions in a Developing Country Setting. www.dsqx.sbp.org.pk/ccs/survey%20information/paper.pdf.

³⁶ Source: State Bank of Pakistan Surveys

³⁷ Literature also suggests that inflation expectations are based on trend in energy and food prices, average exchange rate, global commodity price outlook, previous expectations regarding inflation and

persistent uptrend in domestic prices amid supply shocks, increase in global commodity prices, and ER pressures led to worsening of inflation expectations during H1-FY23.

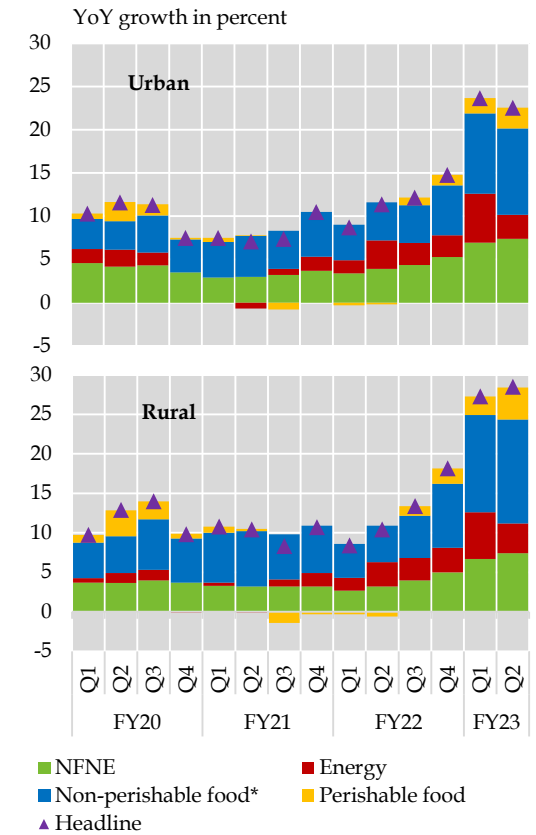
Food group remained the major driver of inflation

Food group contributed nearly one-half to NCPI inflation during H1-FY23. In terms of contribution, non-perishable segment was the major driver of this increase.

Specifically, price pressures in milk fresh, wheat, wheat flour, ready-made food, and edible oil (cooking oil and vegetable ghee) were the major contributors to the rising non-perishable food inflation. Quarter-wise analysis suggests that the flood induced damages to agriculture produce and livestock that caused supply shortages of both perishable and non-perishable commodities, exacerbated food inflation during Q2-FY23 (Figure 3.22).

The supply shortages of food products necessitated greater imports of wheat and pulses (Table 3.6). While the global food prices had started to ease from August 2022, a steep depreciation of PKR partly neutralized the impact of lower prices and added further pressure to the price uptrend in food group. Specifically, imported commodities in the non-perishable food basket (wheat, cooking oil, vegetable ghee, tea, pulses) contributed around 6.7 percentage points in food inflation in urban areas during H1-FY23 against 2.9 percent, a year earlier (Figure 3.24).³⁸

Composition of CPI Inflation Figure 3.22



*inclusive of alcohol beverages and readymade food
Source: Pakistan Bureau of Statistics

Soaring operational & transportation cost and worsening supplies explain inflation in fresh milk

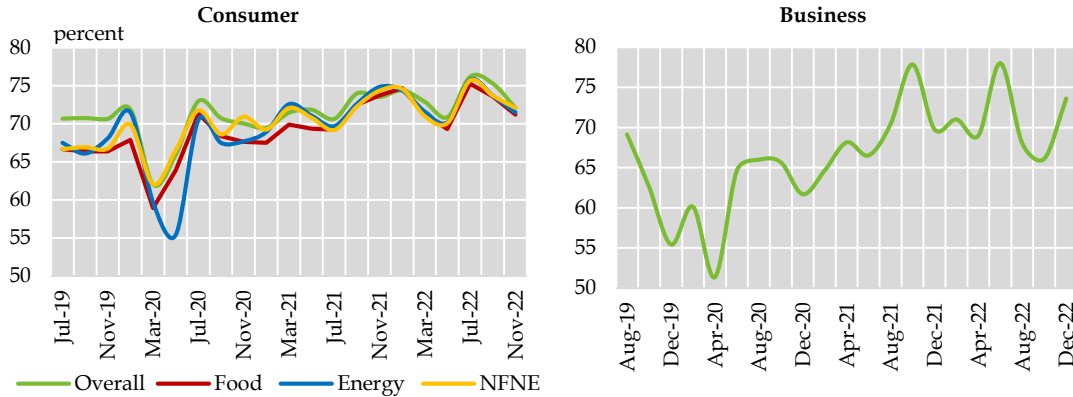
Inflation in fresh milk more than doubled in both urban and rural areas during H1-FY23 and had the largest contribution in overall

monetary policy decisions. Sources: R. Moessner (2022). Determinants of Inflation Expectations in the Euro Area; M. D. Patra and P. Ray (2010). *Inflation Expectations and Monetary Policy in India: An Empirical Exploration*. International Monetary Fund.

³⁸ The contribution of wheat, cooking oil, vegetable ghee, pulses, and tea remained around 10.9 percent in the rural segments during H1-FY23 as compared to 3.6 percent in H1-FY22.

Inflation Expectations

Figure 3.23



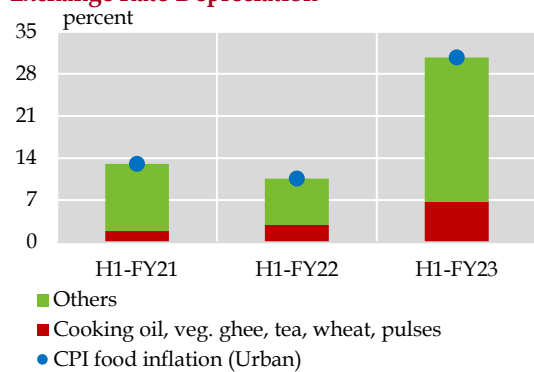
Source: State Bank of Pakistan

inflation in H1-FY23 (Table 3.7).³⁹ A number of factors explain this increase. First, amid the ongoing scarcity of agriculture products, the cost of livestock feed input such as maize pith, sorghum, and oil cakes rose substantially, leading to an increase in milk prices (Figure 3.25). Second, the increase in energy and fuel prices amplified operational

cost of the sector, which further escalated milk inflation. Third, according to the anecdotal evidence, second round impact of fuel and food inflation to wages also partly contributed to the uptick in milk inflation. Finally, according to the estimates, 2022 flooding caused significant damage to livestock population.⁴⁰ The loss of such large

Contribution of Items in Food Inflation that Impacted from Exchange Rate Depreciation

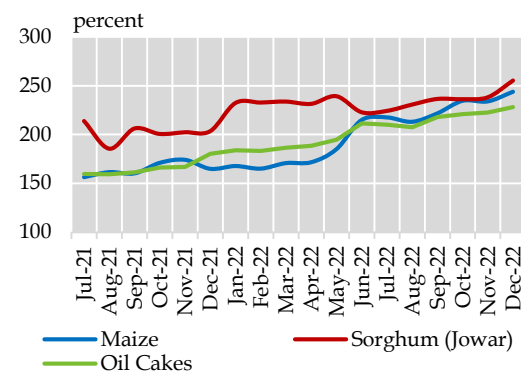
Figure 3.24



Source: Pakistan Bureau of Statistics

Average Prices of Livestock Feed Input (Urban)

Figure 3.25



Source: Pakistan Bureau of Statistics

³⁹ Milk inflation contribution in overall inflation rose to 1.9 and 2.5 percentage points in urban and rural areas during H1-FY23, from 0.8 and 0.9 percentage points in the same period last year.

⁴⁰ Over 1.1 million livestock was damaged during the heavy rains and associated flash floods. Source: Ministry of Planning Development and Special Initiatives (2022). Pakistan Floods 2022: Post Disaster Need Assessment Supplemental Report. Islamabad: Ministry of Planning Development and Special Initiatives

Average CPI Inflation and YoY Contribution

Table 3.7

Items	Urban						Rural					
	Wt.*	H1 FY22	H1 FY23	Cont.* H1- FY23	Q1 FY23	Q2 FY23	Wt.*	H1 FY22	H1 FY23	Cont.* H1- FY23	Q1 FY23	Q2 FY23
CPI	100.0	10.1	23.1	23.1	23.7	22.6	100.0	9.4	27.9	27.9	27.3	28.5
Food	36.8	10.6	30.7	11.8	29.0	32.4	45.9	8.4	33.6	16.0	30.9	36.2
<i>Perishable</i>	4.5	-4.8	48.3	2.1	41.9	54.1	5.8	-6.4	52.1	3.0	42.9	68.8
Potatoes	0.4	-20.4	22.5	0.1	20.5	25.1	0.7	-19.6	19.0	0.2	16.1	21.8
Onions	0.6	-15.7	169.1	0.8	69.4	277.1	0.9	-14.8	178.1	1.1	74.8	289.2
Tomatoes	0.3	-17.4	61.5	0.3	55.3	65.8	0.5	-20.4	72.3	0.4	59.2	81.7
Fresh fruits	1.4	9.4	28.5	0.3	27.0	29.9	1.5	7.1	34.3	0.4	31.4	37.2
Fresh vegetables	1.5	1.0	36.1	0.6	50.3	24.3	2.1	3.5	36.6	0.8	50.7	25.7
<i>Non-perishable</i>	25.9	12.9	28.5	9.7	27.4	29.5	35.1	10.8	29.5	12.4	29.3	31.4
Milk fresh	7.1	11.6	26.9	1.9	26.1	27.7	10.4	8.9	26.1	2.5	23.4	28.7
Ready-made food	5.5	11.3	31.0	1.7	28.6	33.4	3.8	10.4	30.7	1.2	30.7	30.7
Vegetable ghee	1.0	44.5	51.9	0.8	66.9	38.7	2.4	43.6	55.9	2.0	70.2	43.2
Cooking oil	1.0	42.9	56.2	0.8	70.8	43.3	0.6	46.3	56.5	0.5	71.2	43.6
Wheat flour	3.0	15.8	31.2	1.0	24.1	37.8	3.4	14.3	28.8	1.0	21.1	36.0
Meat	2.0	16.8	24.5	0.6	25.9	23.3	1.7	17.3	24.7	0.5	25.8	23.6
Chicken	1.4	10.1	32.1	0.4	46.6	20.9	1.5	11.1	32.0	0.5	46.0	20.9
NFNE (Core inflation)	53.7	7.0	14.1	7.2	13.4	14.7	42.6	7.2	17.4	7.1	16.2	18.5
House rent	19.3	6.3	5.4	1.0	5.6	5.3	8.6	6.3	5.9	0.5	5.9	5.9
Transport services	1.7	5.4	38.0	0.6	42.2	34.2	1.8	2.1	57.8	0.9	56.5	58.9
Appliances and articles	2.9	12.0	21.9	0.6	19.2	24.6	2.3	8.8	14.6	0.3	13.0	16.2
Education	4.9	2.2	10.6	0.5	10.2	11.0	2.1	3.8	9.9	0.2	8.9	10.8
Cotton cloth	2.2	9.6	22.2	0.5	21.8	22.6	2.8	8.4	15.5	0.5	15.0	16.0
Washing	1.4	13.4	37.3	0.5	30.5	43.9	1.7	12.4	33.2	0.5	28.9	37.3
Marriage halls	1.7	5.5	21.6	0.4	23.4	19.9	2.2	4.6	19.6	0.4	20.4	18.8
Communication services	1.9	2.3	0.5	0.0	0.5	0.5	1.6	0.7	0.2	0.0	0.2	0.2
Energy	9.5	25.1	38.8	4.2	55.9	24.2	11.4	22.7	41.0	4.8	52.3	31.0
Electricity charges	4.6	32.1	31.4	1.5	56.6	11.4	3.4	32.1	31.4	1.1	56.6	11.4
Gas charges	1.1	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
Motor Fuel	2.9	26.3	70.5	2.5	88.5	55.2	2.5	25.1	73.4	2.1	92.3	57.3
Liquefied Hydrocarbons	0.5	63.7	23.8	0.2	43.8	7.6	1.0	49.2	36.1	0.4	54.5	20.8
Solid Fuel	0.4	6.1	20.3	0.1	16.0	24.4	4.5	9.5	27.8	1.2	22.8	32.5

*wt. = weight, Cont.= Contribution

Source: Pakistan Bureau of Statistics

number of animals worsened supply situation in the sector causing upward pressure on prices.

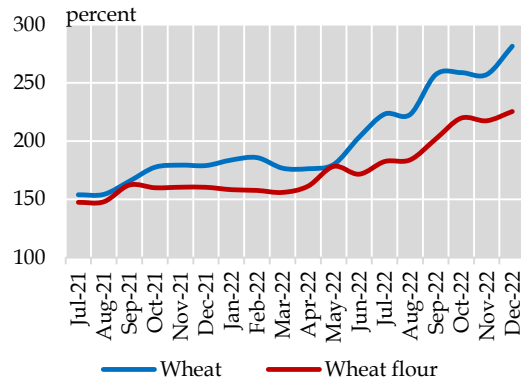
Flood related supply shortages weighed heavily on wheat and wheat flour prices

The inflation in wheat and wheat flour soared to 48.6 and 31.2 percent, respectively

in the urban segment during H1-FY23.⁴¹ The country witnessed 4.0 percent yoy decline in wheat production during FY22 giving rise to a demand-supply gap of the commodity, which had started to push wheat price upward since June 2022 (Figure 3.26). The summer flash floods added additional impetus to price uptrend because of various factors. First, the concerns about supply shortages further amplified, as floods partially damaged government’s wheat storage facilities as well as the grain stocks stored by farming community for household Consumption.^{42, 43} Second, uncertainty about the prospects of timely plantation of wheat, because of delays in drainage of standing water from the fields tainted the outlook for FY23 wheat crop that further swelled wheat inflation. These factors magnified the effect of a large increase in the Minimum Support Price (MSP) of Wheat announced in FY22.⁴⁴

To close the supply-demand gap the government imported a significant quantity of wheat during H1-FY23.^{45, 46} However,

Average Wheat Prices (Urban) Figure 3.26



Source: Pakistan Bureau of Statistics

given relatively higher global commodity prices and persistent depreciation of PKR, the uptrend in wheat flour prices could not be reversed.

Edible oil prices continued uptrend amid increase in cost of production

The prices of edible oil (cooking oil and vegetable ghee) increased by more than 50 percent during H1-FY23 in both urban and

⁴¹ In rural areas, the inflation in wheat and wheat flour accelerated by 46.6 and 28.8 percent, respectively, compared to 5.0 and 14.3 percent same period last year

⁴² Farmers in Pakistan store around 60 percent of their wheat production for fulfilling requirements of seeds, village and household food consumption. Source: United States Department of Agriculture Grain and Feed Report, April 2020

⁴³ International Centre for Integrated Mountain Development and Pakistan Agricultural Research Council (2022). The 2022 Pakistan Floods: Assessment of Crop Losses in Sindh Province Using Satellite Data. Kathmandu: ICIMOD and Islamabad: PARC.

⁴⁴ The government increased MSP by 22 percent to Rs 2,200 per 40 kg in 2022. Source: Agriculture Marketing Information Service. Source: www.amis.pk/Agristatistics/SupportPrice/wheat/wheat.html

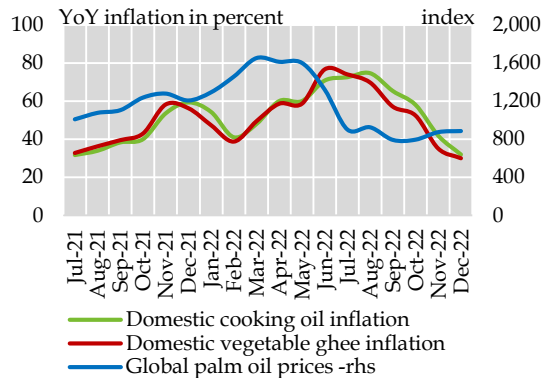
⁴⁵ The import quantum of wheat jacked up by 9.5 percent in H1-FY23 in contrast to a decline in last year. The ECC permitted to provide 1.00 MMT of imported wheat from PASSCO’s stock to Punjab (0.50 MMT), Sindh (0.30 MMT) and KPK (0.20MMT) in view of the urgent demand of Provincial Food Departments of Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan.

Source: Press Release No. 173 dated October 28, 2022, Finance Division

⁴⁶ The ECC permitted to provide 1.00 MMT of imported wheat from PASSCO’s stock to Punjab (0.50 MMT) , Sindh (0.30 MMT) and KPK (0.20MMT) in view of the urgent demand of Provincial Food Departments of Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan.

Source: Press release No. 173 dated 28th October 2022. Finance Division

Edible Oil Inflation versus Global Palm Oil Prices **Figure 3.27**



Source: Pakistan Bureau of Statistics

rural segments (Table 3.7). Despite a sharp yoy decline in global palm oil prices from the month of July 2022 (Figure 3.27), domestic edible oil prices continued to inch up, albeit at a lower pace, on account of PKR depreciation and increase in domestic cost of production.⁴⁷ Particularly, the prices of vegetable ghee especially in the rural areas also soared sharply during H1-FY23.⁴⁸

Rising cost of food and energy fanned inflation in ready-made food

Inflation in ready-made food spiked by 31.0 percent during H1-FY23 in contrast to 11.3 percent a year earlier. The hike in prices

of wheat, edible oil, chicken, electricity and transportation was mainly responsible for this increase. Furthermore, anecdotal evidence suggests that the inadequate availability of gas remained another drag because of supply-demand mismatches particularly at the onset of winters. Given the country’s increasing dependence on imports, the uptrend in global LNG price together with PKR depreciation inflated cost of imported gas.⁴⁹ Since, restaurants and various food chains generally use natural gas and LNG cylinders or liquefied hydrocarbons for cooking purposes, higher cost of these energy sources along with lower availability of local supplies spurred price increase in the ready-made food group during H1-FY23.

The prices of chicken also showed a rising trend during H1-FY23. Rising cost of poultry feed including soyabean meal was one of the key factors behind this increase since the country predominantly relies on soybean meal imports. However, during H1-FY23 reportedly the government placed restrictions on the import of the grain because it did not meet certain seed import regulations.⁵⁰ This, in turn, led to acute supply shortfall and uptrend in the prices of

⁴⁷ A decline in global palm oil prices during H1-FY23 was due to weaker demand of key buyers of Malaysian palm oil (India and China) emanating from higher preference for soybean oil over Malaysian palm oil. Source: United States Department of Agriculture (2022). Malaysia: Oilseeds and Products Update. Washington D.C.: United States Department of Agriculture

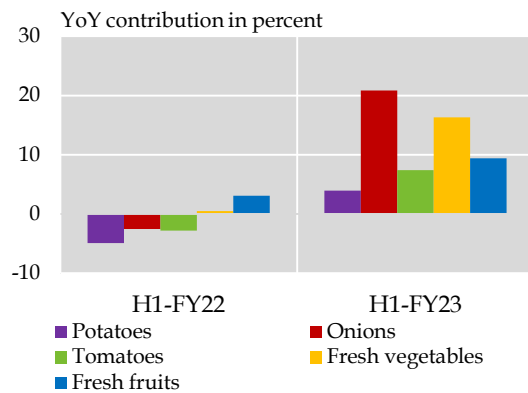
⁴⁸ The contribution of vegetable ghee in the rural inflation remained higher than that of urban areas. This is due to the difference of consumption baskets within rural and urban centres. People in rural areas prefer vegetable ghee over cooking oil for cooking purposes; hence, due to higher weight in the rural food basket, vegetable ghee had greater contribution in the rural inflation.

⁴⁹ The import value of liquefied gas rose by 6.8 percent in H1-FY23. Although the import quantum declined by 94.4 percent, the import prices increased by 9.6 percent in H1-FY23. Source: Pakistan Bureau of Statistics

⁵⁰ Soybean is predominantly a genetically modified crop; its meal is an important component of poultry feed.

Drivers of Perishable Food Inflation

Figure 3.28



Source: Pakistan Bureau of Statistics

poultry feed. Furthermore, livestock losses followed by the heavy rains and floods also created supply disruptions in chicken and meat (mutton and beef) during H1-FY23 (Table 3.7).⁵¹

Prices of tea having a share of around 2.3 percent in the urban food basket, rose sharply by 42.7 percent during H1-FY23 in contrast to 4.7 percent increase in the previous period.⁵² While the global tea prices had started to decline from September 2022, persistent PKR depreciation kept

imported tea prices at elevated level.^{53,54} In addition, rising domestic tea prices amid foreign exchange constraints, further exacerbated tea inflation during H1-FY23. Specifically, tea inflation jumped to 56.0 percent during Q2-FY23, from 27.9 percent in Q1-FY23.

Perishable food inflation rose significantly

Inflation in perishable food group rose substantially by 48.3 percent in H1-FY23 as compared to a decline of 4.8 percent in urban areas. This rise primarily originated from significant losses of fresh fruits and vegetables in summer flooding that lifted inflation in almost all components of the perishable food group during H1-FY23 (Figure 3.28).

In particular, the prices of onions shot up in October 2022 (on m-o-m and y-o-y basis) due to significant damages to onion crop in Sindh and Balochistan that usually arrives in the month of October of every year. The non-availability of onions placed pressures on prices in domestic market in both urban and rural areas. In order to minimize the supply gaps, the country imported the

⁵¹ Sindh was the most affected province with a loss of over 378,000 animals. These fatalities were largely reported in goat population followed by sheep, cattle, and buffalo. In addition, Balochistan remained the second most affected province with a loss of 325,000 animals out of which, over 200,000 private poultry facilities ruined in the district of Lasbela alone. In KP, around 93,500 animals lost out of which nearly half are commercial poultry. Approximately 2,150 deaths of mainly goats, sheep, and cattle were reported in other provinces. Punjab and special regions were the least affected areas with around 1,580 and 550 animal losses respectively, mainly goats and sheep.

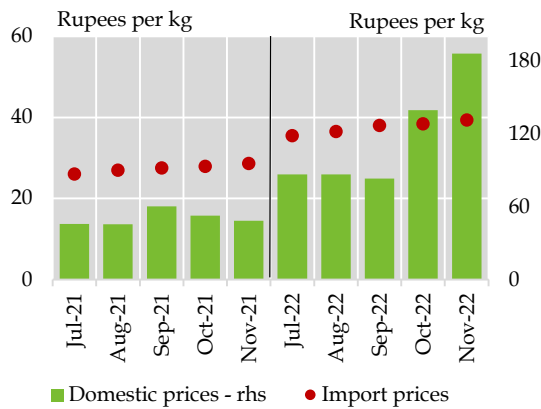
Source: Ministry of Planning Development and Special Initiatives (2022). Pakistan Floods 2022: Post Disaster Need Assessment Supplemental Report. Islamabad: Ministry of Planning Development and Special Initiatives

⁵² The price of tea rose by 38.8 percent in H1-FY23 against 4.0 percent in H1-FY22.

⁵³ The global tea prices declined by 5.6 percent in H1-FY23 as compared to a growth of 14.5 percent last year. Source: IMF

⁵⁴ The import quantum of tea fell by 0.2 percent during H1-FY23, whereas PKR value of imported tea rose by 39.8 percent during this period, compared to same period last year. Source: Pakistan Bureau of Statistics

Onion Prices **Figure 3.29**



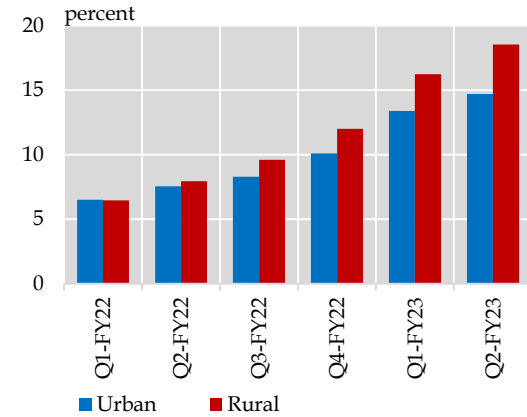
Source: Pakistan Bureau of Statistics

commodity from Iran and Afghanistan.⁵⁵ In addition, the import prices remained relatively higher than last year;⁵⁶ this together with a sharp PKR depreciation elevated the domestic price of onions on YoY basis (**Figure 3.29**).

NFNE Inflation intensified in both urban and rural areas

Core (NFNE) inflation reached a nine-year peak of 14.1 percent in H1-FY23, compared to 7.0 percent in H1-FY22.⁵⁷ Continuing the double-digit increase of Q4-FY22, core inflation gathered further momentum in both quarters of H1-FY23 across urban and rural segments (**Figure 3.30**). In terms of dispersion, NFNE inflation broadened considerably with about eighty-five percent sub-indices in urban and rural

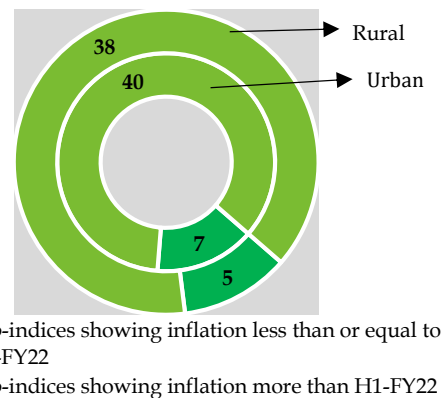
NFNE - YoY Trends **Figure 3.30**



Source: Pakistan Bureau of Statistics

areas showing higher inflation in H1-FY23 in contrast to a year ago (**Figure 3.31**). In addition to elevated inflation expectations, the rising trend of core inflation also mirrors cost-push factors, whereas aggregate demand showed clear signs of contraction

NFNE Dispersion - H1-FY23 **Figure 3.31**



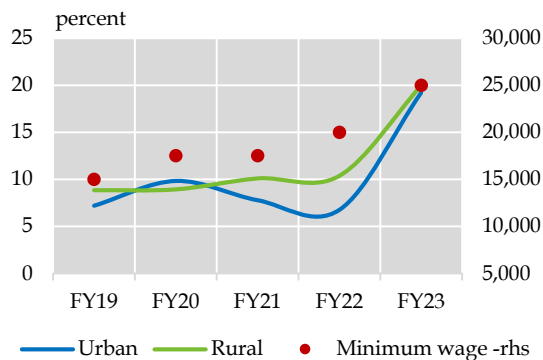
Source: Pakistan Bureau of Statistics

⁵⁵ The import quantum of onions from Afghanistan rose sharply by almost 87 percent to 188 thousand metric tons during Jul-Oct FY23. Furthermore, the country also imported from Iran (47 thousand metric tons) during the same period with no onion imports in the last corresponding period. Source: Pakistan Bureau of Statistics

⁵⁶ The import prices of onions in PKR (per kg) in Jul-Nov FY23 increased by 37.0 percent as compared to a decline of 0.4 percent in the last corresponding period. Source: Pakistan Bureau of Statistics

⁵⁷ NFNE inflation (urban) recorded double-digit inflation soaring to 14.1 percent in H1-FY23 - first time in nine years since H1-FY13.

Wage Inflation during H1 **Figure 3.32**

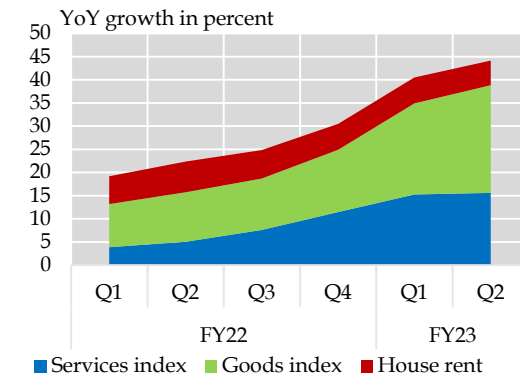


Source: Pakistan Bureau of Statistics & Ministry of Finance

during H1-FY23. A host of factors such as the demand compression measures introduced since last year, flood-induced losses to agriculture, temporary restrictions on imports, and overall deterioration in macroeconomic environment weighed down economic activity and hence domestic demand during H1-FY23. In particular, LSM production dipped by 3.7 percent during July-December FY23, against an 8.2 percent increase in the last corresponding period. In addition, amid a slowdown in global demand and unfavorable domestic economic environment export growth (in rupee terms) fell by 24.3 percent in H1-FY23 from 29.5 percent growth in H1-FY22.

The significant contraction in economic activity dented incomes of various sectors of the economy. Moreover, as indicated by the

Sources of NFNE Inflation (Urban) **Figure 3.33**



Source: Pakistan Bureau of Statistics

significant damage to agriculture production and livestock caused by floods, rural incomes also weakened during H1-FY23. In addition, remittances also saw a substantial YoY decline in H1-FY23. As a result, all major domestic demand indicators including sales of automobiles, cement, and petroleum products showed considerable yoy declines during H1-FY23 (Table 3.3).

On the other hand, the combined effect of higher energy and fuel prices, PKR depreciation, temporary restrictions on selected imports, and increase in taxes and other levies propelled cost-push inflation in NFNE segment.⁵⁸ Furthermore, heightened food and energy prices squeezed real incomes and wellbeing of labor that pushed up wage inflation in both urban and rural areas during H1-FY23.⁵⁹ Moreover, the

⁵⁸ The government started to charge Petroleum Development Levy (PDL) in the petroleum prices with effect from July 1, 2022. Source: OGRA (www.ogra.org.pk/e-10-gasoline-prices). The regulatory duty on paper and paperboard, wires (made of iron and alloys), and optic fiber cable was increased to 10, 30, and 20 percent, respectively. The regulatory duty on motor vehicles also increased from 15 percent to 100 percent in August 2022. Source: Revenue Division (MoF) and FBR

⁵⁹ The wage index comprises of the prices of tailoring, cleaning and laundering, construction wage rates, garbage collection, household help, doctor fee, dental services, mechanical services, and personal grooming services.

Top Contributors of NFNE Inflation (Urban), YoY growth

Figure 3.34

	Wt.	2021						2022											
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Core Inflation	53.7	6.8	6.3	6.4	6.7	7.6	8.3	8.2	7.8	8.9	9.1	9.7	11.5	12.0	13.8	14.4	14.9	14.6	14.7
House Rent	19.3	6.0	6.0	6.0	6.6	6.6	6.6	6.1	6.1	6.1	5.6	5.6	5.6	5.6	5.6	5.6	5.3	5.3	5.3
Transport services	1.8	8.5	-0.8	-0.3	0.8	12.2	12.7	11.6	9.3	19.1	20.3	22.4	34.8	39.7	44.6	42.4	41.3	33.4	28.4
Appliances/articles	3.0	12.1	11.6	12.1	12.5	12.0	11.7	11.6	9.0	9.9	9.5	10.3	14.4	15.8	19.6	22.1	23.8	24.3	25.7
Cotton Cloth	2.2	9.8	9.8	9.8	9.8	8.6	9.9	10.1	11.3	10.9	12.5	12.5	15.7	18.1	23.5	23.7	24.2	22.2	21.4
Washing soap/detergen	1.4	12.2	12.6	12.3	12.5	14.4	16.6	18.0	17.1	16.7	17.2	18.7	22.6	24.7	28.9	37.7	41.5	43.4	46.6
Marriage hall charges	1.8	3.4	2.5	2.6	2.2	9.2	12.6	12.8	13.5	13.3	13.2	13.2	21.5	21.7	24.2	24.3	24.5	18.8	17.0
Motor vehicles	0.8	2.8	2.8	2.4	3.3	8.0	8.0	7.6	8.5	10.3	16.2	19.7	20.9	24.0	38.4	34.9	34.3	28.2	27.5

Red: Highest; Green: Lowest

Source: Pakistan Bureau of Statistics

impact of relatively higher minimum wage in FY23 also reflected in the wage inflation during the period under review (Figure 3.32).⁶⁰

In terms of contribution, inflation in goods and services rose considerably during H1-FY23, with a prominent contribution of the former (Figure 3.33). In overall terms, appliances and articles including beauty products and toiletries, transport services, washing items including soaps and detergents, cotton cloth, marriage hall charges, and motor vehicles remained the major drivers of urban core inflation during H1-FY23 (Figure 3.34).

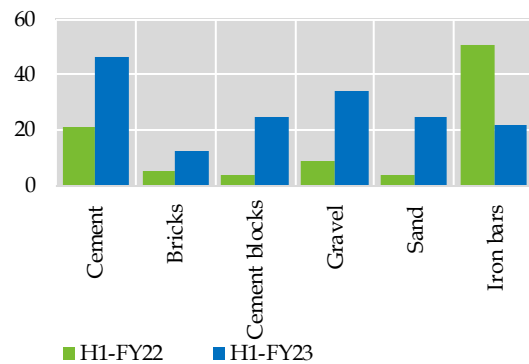
A general hike in cost of production including, electricity and fuel prices, wages, input prices and PKR depreciation mainly explains heightened inflation in these categories. Moreover, the higher prices of cement and cement blocks, bricks, gravel (bajri), sand, and iron bars explained a significant rise in the index of construction

input items in H1-FY23 (Figure 3.35). Motor vehicles' price rose considerably during H1-FY23, reflecting the impact of strong depreciation of PKR and rising cost of production.

The services index of core inflation also rose sharply in both urban and rural areas during H1-FY23. The services that are energy-intensive such as transport and personal

Inflation in Construction Input Items (Urban)

Figure 3.35



Source: Pakistan Bureau of Statistics

⁶⁰ The federal government increased the minimum wage to Rs 20,000 (from Rs 17,500) in 2021-22. In 2022-23, the provinces raised the minimum wage rates to Rs 25,000 per month. Source: Notifications pertaining to provincial Labour and Human Resource departments.

Top Contributors to NFNE Inflation in Services (Urban) **Table 3.8**

	Average Inflation	
	H1-FY22	H1-FY23
NFNE Inflation (Services)	4.4	15.4
Transport services	5.4	38.0
Education	2.2	10.6
Marriage hall charges	5.5	21.6
Personal grooming services	7.0	26.0
Tailoring	8.3	16.6

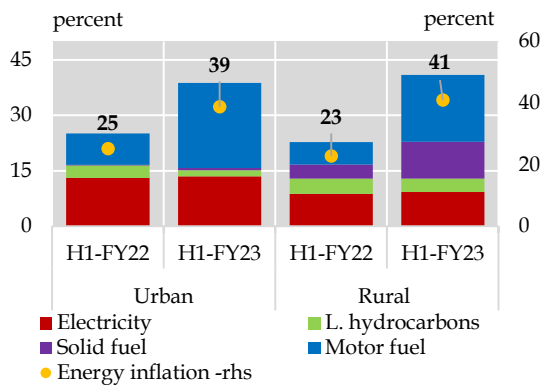
Source: Pakistan Bureau of Statistics

grooming services, took the biggest hit due to higher energy cost. In particular, transport services surged sharply on account of swelling motor fuel prices during H1-FY23 (Table 3.8). Other such services related to mechanical, cleaning/laundrying, tailoring, and wedding hall arrangements also contributed to the rising prices of services in the non-food non-energy basket.

Energy Inflation continued to rise

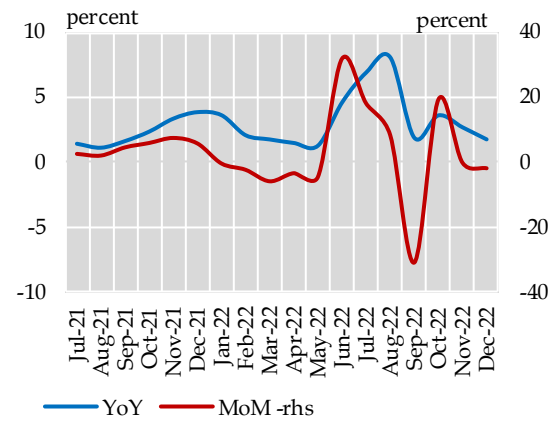
Energy inflation rose significantly on YoY basis in both urban and rural areas during H1-FY23. Hike in motor fuel prices mainly dominated energy inflation in this period,

Contribution in Energy Inflation **Figure 3.36**



Source: Pakistan Bureau of Statistics

Energy Inflation (Urban) **Figure 3.37**



Source: Pakistan Bureau of Statistics

followed by the increase in electricity charges. However, in the case of rural areas, a rise in solid fuel prices also had a noticeable contribution in energy inflation during H1-FY23 (Figure 3.36).

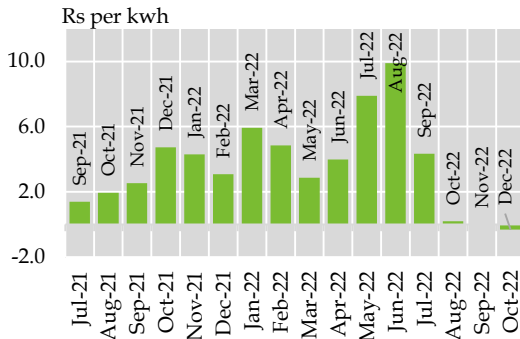
The spike in electricity prices during H1-FY23 emanated from the annual and quarterly adjustment in the electricity tariffs under the IMF program (Table 3.9). Specifically, the government introduced combined annual rebasing of electricity tariffs for FY22 and FY23 in three phases during Jul, August and Oct 2022, which led to increase in power charges in these months (Figure 3.37). However, a downturn in global oil prices from August 2022 onwards,

Annual and Quarterly Adjustments in Electricity Tariff **Table 3.9**

Notified Tariff w.e.f	
Annual Rebasing (AR)	
First stage (Rs 3.50/ kwh)	July 25th 2022
Second stage (Rs 3.50/kwh)	August 1st 2022
Third stage (Rs 0.91/kwh)	October 1st 2022
Quarterly Tariff Adjustment (QTA)	
Q1-FY22 (Rs 0.57/kwh)	June 1st 2022
Q2-FY22 (Rs 1.55/kwh)	July 7th 2022
Q3-FY22 (Rs 0.51/kwh)	August 23rd 2022
Q4-FY22 (Rs 3.21/kwh)	October 20th 2022

Source: IMF, NEPRA, MoF

Fuel Charge Adjustment (FCA) Figure 3.38



Note: x-axis indicates months for which FCA was charged

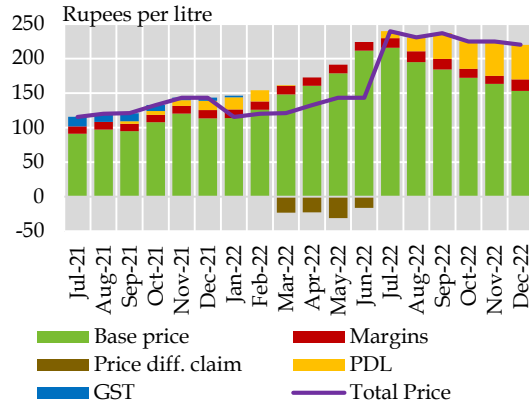
Source: National Electric Power Regulatory Authority

contained the pace of increase in electricity tariffs during Q2-FY23 because of lower fuel charge adjustment (Figure 3.38).

Furthermore, during the month of September 2022, the government announced a relief package for power consumers that led to a dip in energy inflation during this month. Reflecting the impact of softening global oil prices and the relief package the m-o-m growth of in energy prices remained negative during September, November and December 2022.⁶¹

Furthermore, prices of motor fuel edged up during H1-FY23 reflecting the impact of imposition of Petroleum development levy (PDL), higher global prices of oil and ER depreciation. However, the global crude prices started to ease from August 2022, which led to a slowdown in motor fuel inflation on m-o-m basis. Furthermore, as opposed to H1-FY22 when petroleum prices were subject to GST, the absence of sales tax

Composition of Petrol Prices Figure 3.39



Source: Oil & Gas Regulating Authority

also slightly cushioned petrol prices during H1-FY23 as compared to the last corresponding period (Figure 3.39).

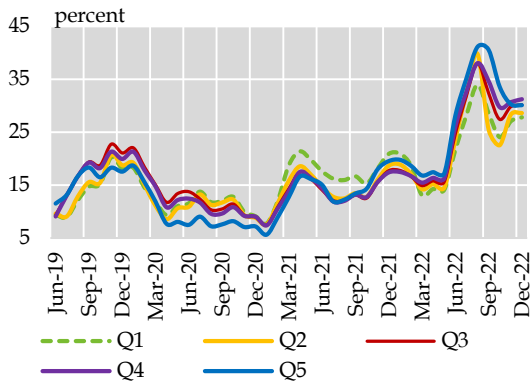
Apart from motor fuel, solid fuel including coal and firewood also contributed to energy inflation in rural areas during H1-FY23. In rural areas, solid fuel is used as a substitute of gas. Anecdotal evidence suggests that the gas shortages further increased the demand for coal and firewood, which led to increase in the prices of solid fuel in H1-FY23.

The higher inflation spell has affected the consumers in highest consumption basket the most

Consumers in all consumption baskets were adversely affected by the surge in inflation during H1-FY23, compared to last year. However, within the consumption groups, the lower consumption quintiles (with consumption up to Rs 17,732 and 22,888) faced relatively lower inflation during H1-

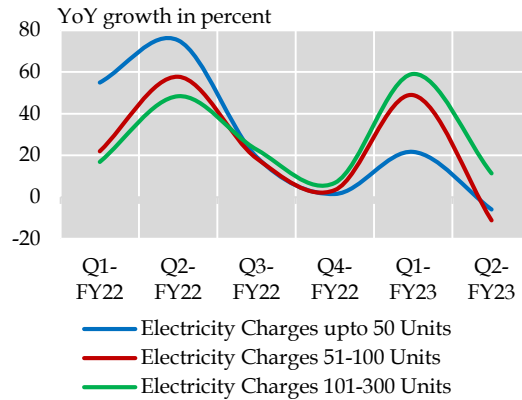
⁶¹ The m-o-m growth in energy prices declined by 31.1, 0.2, and 1.9 percent while the y-o-y price growth in energy was recorded at 18.9, 24.5, and 15.4, in the months of September, November, and December 2022, respectively in urban centers. Source: Pakistan Bureau of Statistics

Inflation-Consumption Quintile Figure 3.40



Note: SPI is compiled on 2015-16 base
 Source: Pakistan Bureau of Statistics

Electricity Price Trends (Urban) Figure 3.41



Source: Pakistan Bureau of Statistics

FY23 than the highest consumption basket (more than Rs 44,175) (Figure 3.40).⁶²

Difference in the consumption preferences of lowest and highest quintiles mainly explains this trend. Lower consumption quintiles have a larger weight of food products such as wheat, milk, sugar and vegetable ghee. For meeting energy requirements this group prefers low cost products including firewood and agriculture waste.⁶³ Whereas, in addition to these basic food items, higher consumption quintile has relatively large

share of items such as meat and fruits as well as food from hotels and restaurants.⁶⁴ In overall terms, the consumption basket of this quintile has lower share of food group and includes broad range of products such as textile, clothing and footwear. Within energy group, consumers in higher consumption quintiles have greater preference for electricity and gas. Hence, the consumers in lower consumption quintiles were relatively less affected by the impact of sharp increase in electricity prices during H1-FY23 (Figure 3.41).

⁶² The consumption of quintiles: Q1 (up to Rs. 17,732); Q2 (Rs. 17,733 - 22,888); Q3 (Rs. 22,889 - 29,517); Q4 (Rs 29,518 - 44,175); Q5 (above Rs. 44,175). Source: Pakistan Bureau of Statistics

⁶³ Source: Household Integrated Economic Survey 2018-19

⁶⁴ Source: Household Integrated Economic Survey 2018-19

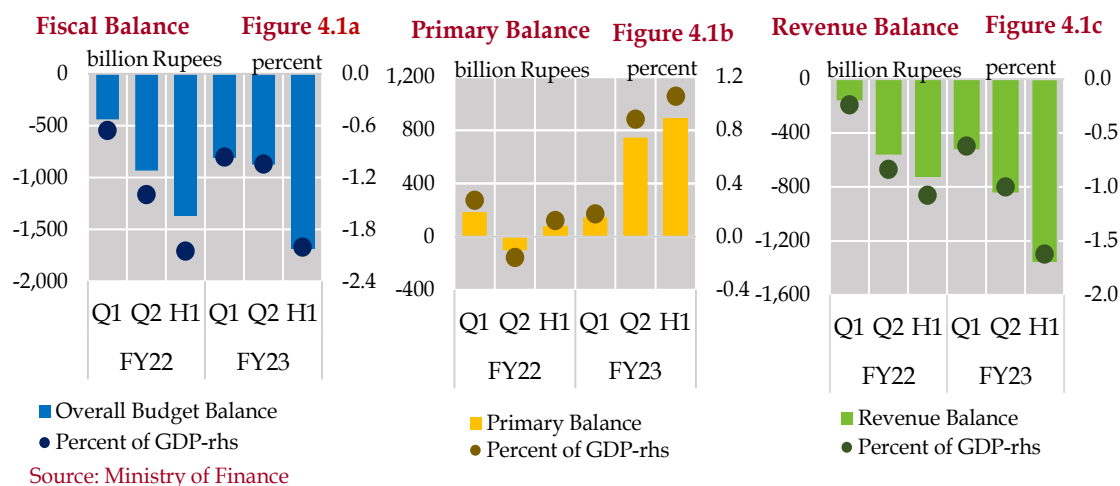
4 Fiscal Policy & Public Debt

Fiscal deficit remained unchanged as percent of GDP in H1-FY23 from last year; whereas, primary surplus recorded notable improvement, mainly on account of marked slowdown in non-interest spending, aided by relatively higher pace of expansion in overall revenue. Non-interest spending slowed down mainly through substantial decline in subsidies and grants. Government's revenue mobilization measures, inflation, and elevated interest rates led to higher tax collections – mainly direct taxes; whereas, increase in the petroleum levy and mark-up payments by the PSEs and provinces augmented non-tax revenue collections. On the other hand, the revenue deficit deteriorated, reflecting the higher pace of growth in current expenditure relative to overall revenues. While government exercised restraint in development expenditure, interest spending rebounded sharply from last year's fall. Moreover, FBR missed the half-year target due to import contraction, and lackluster economic activity. Due to the paucity of external financing, government resorted to domestic resources to finance its fiscal deficit. Additional debt accumulation was tilted towards longer-tenor, floating instruments – PIBs and Ijara Sukuks. While lengthening of debt profile lowered the prospects of rollover risk, it stoked the repricing risk amid the rising interest rate environment.

4.1 Fiscal Trends and Policy Review¹

Fiscal deficit stood at 2.0 percent of GDP in H1-FY23 – unchanged from the same period last year (Figure 4.1a).² However, moderation in non-interest spending along with the decent increase in revenues led to higher surplus in the primary balance. The primary balance posted a surplus of 1.1 percent of GDP in H1-FY23, against 0.1 percent in H1-FY22 (Figure 4.1b).

However, revenue balance, which gauges the capacity of overall revenues to finance current expenditures, deteriorated in H1-FY23 compared to last year (Figure 4.1c). This was driven by substantial acceleration in markup payments compared to the same period last year. Besides, the aggregate provincial accounts also posted a lower surplus of 0.1 percent of GDP compared to 0.7 percent last year (Table 4.1).



¹ Revised GDP is used to measure H1-FY23 performance of different indicators and variables as percent of GDP in this section and the rest of the chapter.

² In H1-FY23, fiscal deficit was 44.3 percent of the annual target, compared to 28.9 percent in H1-FY22.

Consolidated Fiscal Indicators in H1**Table 4.1**

values in billion Rupees; growth in percent

	Values		Growth		As Percent of GDP	
	FY22	FY23	FY22	FY23	FY22	FY23
1. Total Revenue (a+b)	3,956.0	4,698.9	18.0	18.8	5.9	5.6
(a) Tax Revenue	3,191.0	3,731.9	29.9	16.9	4.8	4.4
Federal	2,919.8	3,428.8	32.1	17.4	4.4	4.1
Provincial	271.2	303.0	10.3	11.7	0.4	0.4
(b) Non-Tax	764.9	967.1	-14.6	26.4	1.1	1.1
Federal	697.4	896.4	-17.8	28.5	1.0	1.1
Provincial	67.6	70.7	43.1	4.5	0.1	0.1
2. Total Expenditure (a+b+c)	5,327.8	6,382.4	18.7	19.8	8.0	7.6
(a) Current expenditure	4,675.7	6,061.2	16.0	29.6	7.0	7.2
Mark-up payments	1,452.9	2,573.1	-1.5	77.1	2.2	3.1
Defence	520.5	638.9	7.0	22.7	0.8	0.8
Non-markup current expenditure	3,222.8	3,488.2	26.2	8.2	4.8	4.1
(b) Development expenditure & net lending	571.5	636.6	24.8	11.4	0.9	0.8
(c) Statistical discrepancy	80.6	-315.4	4,145.4	-491.2	0.1	-0.4
3. Overall budget balance	-1,371.8	-1,683.5	20.6	22.7	-2.0	-2.0
4. Primary balance	81.1	889.6	-76.0	997.3	0.1	1.1
5. Revenue balance	-719.7	-1,362.3	6.1	89.3	-1.1	-1.6
6. Financing (a+b)	1,371.8	1,683.5	20.6	22.7	2.0	2.0
(a) External (Net)	1,025.6	-296.3	125.7	-128.9	1.5	-0.4
(b) Domestic (Net)	346.2	1,979.8	-49.4	471.9	0.5	2.4

Source: Ministry of Finance

To put things into context, amid the ongoing fiscal consolidation efforts under the IMF Extended Fund Facility (EFF) program, the government had envisaged a significant reduction in budget deficit to 4.9 percent of GDP in FY23 from 7.9 percent recorded in the previous year. A strong expansion in tax collection and rationalizing of energy subsidies and grants were the key elements of the desired fiscal outcomes. However, a sharp increase in interest spending and below target growth in FBR taxes kept the fiscal deficit during H1-FY23 almost at the same level seen during H1-FY22, in terms of GDP.

Growth in the overall expenditures in H1-FY23 remained marginally higher than last year, attributed to expansion in both current and development spending. More than half of the entire increase in current spending came from large markup payments, which rebounded sharply due to higher outstanding debt stock in an increasing interest rate environment and growing share of floating rate debt. The non-interest current spending declined on account of substantial fall in subsidies and grants, whereas other expenses including pension, running of civil government and defence services recorded sizeable increase in

H1-FY23. The higher expenditures incurred on running of civil government reflects the announcement of ad-hoc relief allowances and upward adjustment in salaries of federal civil, defence and PSEs employees. Similarly, pension payments also scaled up due to yearly increment in pension rates.

On the other hand, the power sector subsidies including tariff differential payments under Circular Debt Management Plan (CDMP) to Discos, IPPs Wapda/Pepco and K-Electric remained largely short of budgeted targets irrespective of higher accumulation in circular debt during H1-FY23. Similar contraction is also visible in the volume of overall grants, mainly due to absence of Covid-related payments.³ The flood payouts disbursed through National Disaster Management Authority (NDMA) and Benazir Income Support Program (BISP) were among the largest federal grants. The overall development spending showed a moderate growth during H1-FY23 compared to same period last year.

On the revenue side, both tax revenue and non-tax revenue grew in H1-FY23. Specifically, non-tax revenue reversed trends from last year, and aided in pushing revenue growth slightly higher than the same period last year. The entire growth in tax revenue emanated from domestic taxes (direct taxes, sales tax, FED), unlike last year when import-related taxes had mainly propelled the growth. Growth in domestic taxes, in turn, is almost completely explained by direct taxes, which received major stimulus from revenue-mobilization measures introduced in the FY23 budget – including imposition of new super tax on banks and non-bank firms;

revenue impact of elevated inflation and interest rates; and higher collections through FBR's demand notices. FBR's tax administration efforts and reforms also complemented these developments.

Import-related taxes caused a drag on tax revenue, which were mirrored in the slowdown of imports. Weakening demand, disruptive floods, and zero GST on imported crude and POL products to give relief to masses also proved challenging for tax collections. Together, these factors also led to deceleration in tax revenue, with the FBR missing the half-yearly target. Non-tax revenue, on the other hand, was lifted by higher petroleum levy, mark-up payments (from PSEs and others) to government, and royalties on oil and gas paid by government entities when oil prices were trending high.

Amid a large fiscal deficit, the government's financing needs increased in H1-FY23. With limited external financing, most of the deficit was financed through domestic resources. In terms of composition, the public debt was skewed towards long-term, variable rate instruments, particularly PIBs and GoP Ijara Sukuks. The government partially retired its stock of T-bills and external commercial loans. While the lengthening of debt profile through floating rate instruments reduced the rollover risk, repricing risk came to the fore in the backdrop of high interest rate environment. Moreover, the repayment capacity of the country deteriorated during H1-FY23 on account of increasing interest payments, accompanied by the lower-than-targeted FBR revenue collections and insufficient external financing.

³ The Covid-related grants remained a major source of federal grants in H1-FY22 with an outlay of Rs 102 billion.

Total Revenue Collection in Pakistan**Table 4.2**

billion Rupees; growth in percent

	Collections						Growth					
	Q1		Q2		H1		Q1		Q2		H1	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
Total Revenue (1+2)	1,809	2,017	2,147	2,682	3,956	4,699	22.3	11.5	14.7	24.9	18	18.8
1. Tax Revenue	1,533	1,782	1,658	1,950	3,191	3,732	36.6	16.3	24.4	17.6	29.9	16.9
<i>Federal</i>	1,398	1,634	1,522	1,795	2,920	3,429	38.3	16.9	26.9	17.9	32.1	17.4
<i>Provincial</i>	135	148	136	155	271	303	20.6	9.9	1.8	13.5	10.3	11.7
2. Non-Tax Revenue	276	235	489	732	765	967	-22.6	-14.8	-9.2	49.7	-14.6	26.4

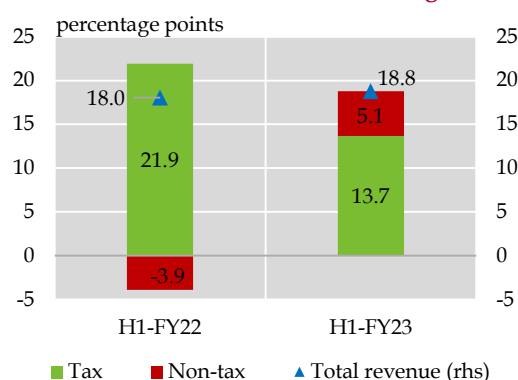
Source: Ministry of Finance

4.2 Revenue

Total revenue rose by 18.8 percent in H1-FY23, registering a slight increase from last year's 18.0 percent growth (Table 4.2). While growth rate of tax revenue, a major contributor, almost halved from last year, growth of non-tax revenue (NTR) turned from negative to notable positive (Figure 4.2).

Quarterly data shows that total revenue accelerated sharply in Q2 vis-à-vis Q1 of FY23. It was due to positive contribution of non-tax revenue in the second quarter, which, in turn, was propelled by mark-up payments (from PSEs and others), oil and gas royalties, and transfer of SBP's surplus profit (including arrears from last year). Tax revenue grew at an almost the same pace in both the quarters.

While the federal tax revenue received impetus from administrative and revenue mobilization measures of the FBR, as well as the revenue impact of inflation and rising interest rates, they faced headwinds from the slowdown in imports, floods, and lackluster economic activity. Exchange rate depreciation partially offset the impact of declining imports.

Percent Contribution in Revenue Figure 4.2

Source: Ministry of Finance

FBR Taxes

FBR's net tax collection posted 17.4 percent expansion in H1-FY23, against last year's 32.5 percent (Table 4.3). Almost the entire growth was achieved on the back of domestic direct taxes, which recorded 56.3 percent growth in H1-FY23. There was also growth in domestic sales tax and FED collections; however, it was overshadowed by the decline in import-related counterparts (including customs duties). All domestic taxes (direct taxes, sales tax, and FED) drove growth in H1-FY23, as opposed to last year when import-related taxes (sales tax, customs duties, and FED) had played a pivotal role (Figure 4.3).

FBR Tax Revenue in H1**Table 4.3**

billion Rupees; growth in percent

	Collections		Percent Change		Contribution in FY23 Growth	Target (H1-FY23)	Percent of Target
	FY22	FY23	FY22	FY23			
A. Direct Taxes	1,021	1,526	23.6	49.4	17.3	1,547	99
Imports	141	149	n.a*	6.1	0.3	-	-
Domestic	881	1,376	n.a*	56.3	17.0	-	-
B. Indirect Taxes (1+2+3)	1,899	1,903	37.8	0.2	0.2	2,099	91
1. Sales Tax	1,275	1,272	39.1	-0.2	-0.1	1,376	92
Imports	892	825	75.4	-7.6	-2.3	-	-
Domestic	383	447	-6.2	16.8	2.2	-	-
2. FED	146	164	15.3	12.3	0.6	179	92
Imports	12	6	27.6	-53.3	-0.2	-	-
Domestic	134	159	14.3	18.3	0.8	-	-
3. Customs	477	467	42.8	-2.1	-0.4	543	86
Import	477	467	42.8	-2.1	-0.4	543	86
Domestic	-	-	-	-	-	-	-
Grand Total (A+B)	2,920	3,429	32.5	17.4	-	3,646	94

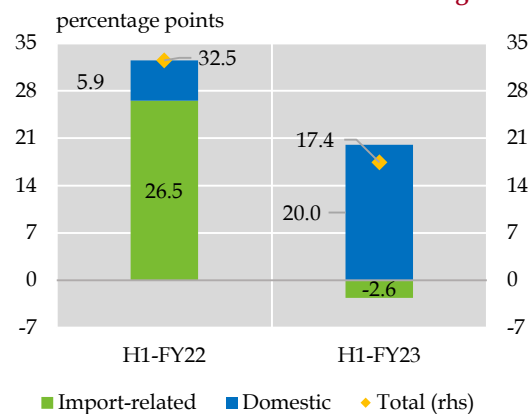
*Bifurcated data for Direct Taxes not available

Source: Federal Board of Revenue

There was deceleration in tax revenue growth in H1-FY23 compared to last year, which is traced to the import contraction, crimping demand, downbeat economic activity amidst devastating floods, and FBR missing targets due to some revenue-enhancing measures being contested in the courts.

Further, tax collections were impeded by zero GST on imported petroleum products and crude, and temporary exemptions on all duties and taxes extended under the ambit of flood relief. Moreover, refunds issued in H1-FY23 were also 18.1 percent higher than the same period last year.

That being said, the growth in tax revenue in H1-FY23 was achieved on the back of following major factors:

Contribution in Tax Revenue**Figure 4.3**

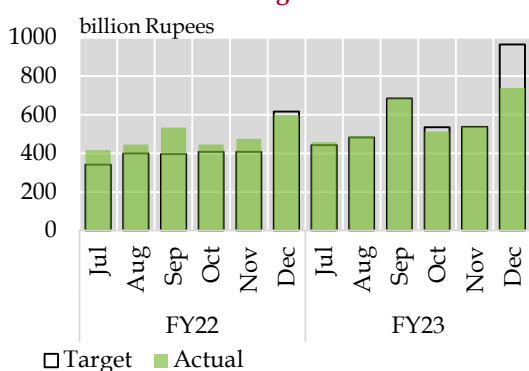
Source: Federal Board of Revenue

a) Revenue mobilization measures introduced in the Finance (Supplementary) Act 2022 and Finance Act 2022, including revisions in income tax rates; imposition of super tax on high-earning persons; measures to widen tax base – for example tax on deemed income from property; and removal of domestic GST exemptions. b) FBR's administrative efforts to improve tax compliance and ease of doing business, including rollout of Synchronized Withholding Administration and Payment System (SWAPS); revamping of Alternate Dispute Resolution Mechanism; National

Sales Tax Return; Track and Trace System (TTS) for tobacco and sugar. **c)** Inflation in goods and services, as well as increase in government salaries, also cushioned tax collections in the first half. **d)** Rising interest rates pushed up returns on government securities, saving deposits, saving certificates, banks' profitability, and income taxes paid thereof.

In terms of budget targets, aggregate tax collections accounted for 94 percent of the target in H1-FY23; last year in the first half, these collections had surpassed the cumulative target by a large margin. Monthly data indicates that the major slippage occurred only in the month of December 2022 (**Figure 4.4**). According to the FBR, it was because of some revenue-enhancing measures, worth Rs 250 billion, announced in the Finance Act 2022 that could not be implemented, as they were being contested in courts.⁴ In addition to that,

Monthly Performance of Actual Collections vis-a-vis Targets **Figure 4.4**



Source: Federal Board of Revenue Press Releases

import compression in the second quarter led to tax collections from imports falling short of the target (**Table 4.3**).

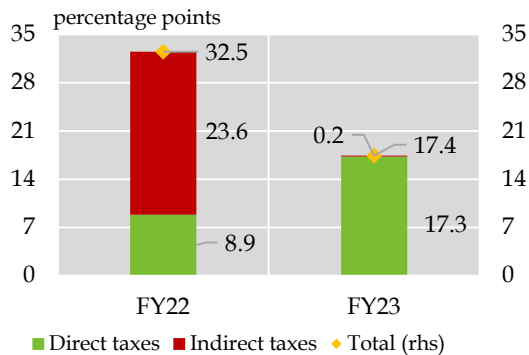
FBR's administrative measures

Various administrative measures taken by the FBR in FY22 and FY23 proved instrumental in propelling tax collection, improving tax compliance, and propping up ease of doing business. Some of those measures are worth-accentuating here:

- a)** Alternative Dispute Resolution (ADR), an out-of-court dispute-solving mechanism that facilitates ease of doing business, was revamped through the Finance Act 2022, to make it more efficient and effective.
- b)** Automated System of Collection and Deduction of Withholding Taxes (SWAPS) was introduced in the Finance Act 2022 that aims to simplify and streamline collection and deduction of withholding tax by the withholding agents.
- c)** Discontinuance of gas and electricity connections of sales tax agents, including Tier-1 retailers, who fail to register for sales tax purpose, or notified tier-1 retailers registered but not integrated with the Board's Computerized System. This measure was announced in the Finance Act 2022.
- d)** A Point-of-Sale (POS) Prize Scheme, rolled out during late 2021, encourages consumers to buy from Tier-1 retailers, which are registered and integrated with the FBR's online POS system.⁵

⁴ Source: FBR Press Release dated December 31, 2022. Source: www.fbr.gov.pk/pr/fbr-achieves-unprecedented-growth-of-66-in-di/173748/2022

⁵ A consumer wins cash prizes in electronic draws by verifying the invoices through Tax Asaan application, which become part of the draws. First draw was held on 15-January-2022, followed by

Contribution of Direct and Indirect Taxes in Tax Revenue Growth in H1**Figure 4.5**

Source: Federal Board of Revenue

e) Introduction of National Sales Tax Return (NSTR) in January 2022 to increase ease of doing business by simplifying and consolidating the sales tax returns filing.⁶

f) Track and Trace System (TTS) for tobacco and sugar industries, introduced in Q2-FY22, is bearing positive results. In H1-FY23, sales tax collected from the sales of sugar and cigarettes increased by 9.2 percent and 25.9 percent respectively.

Direct taxes drove the YoY increase in tax revenue

Direct taxes' growth rate and contribution to tax revenue doubled in H1-FY23 vis-à-vis the same period last year, whereas indirect taxes stood stagnant (**Figure 4.5 and Table 4.4**). The breakdown of direct taxes shows that major contributions came from withholding taxes, voluntary payments, followed by collection on demand.

Direct Taxes Collected in H1**Table 4.4**

billion Rupees; growth in percent

	Collections		YoY Growth	
	FY22	FY23	FY22	FY23
Collection on Demand	20.3	49.2	-47.3	142.7
Voluntary Payment	312.0	543.7	21.5	74.2
Advance tax	245.3	449.0	15.9	83.0
Withholding taxes	665.1	923.8	16.8	38.9
Bank interest & securities	64.5	138.4	-4.6	114.6
Contracts	133.8	183.3	11.2	37.1
Salaries	84.5	117.7	21.0	39.3
Electric bills	31.8	55.7	22.9	74.9
Imports	132.4	148.5	45.8	12.1
Transfer of immoveable property	35.6	68.7	n.a	93.3
Net Direct Tax (DT)	1,021	1,526	23.6	49.4%

Note: Net DT is adjusted for DT refunds. Other amounts in the table are on gross basis.

Source: Federal Board of Revenue

Withholding taxes (WHT)

Withholding tax collection from bank interest and securities increased markedly due to two main factors: **a)** withdrawal of exemption of reduced rate benefit on investment in federal government securities. Earlier, profit on debt of all persons other than banking companies was taxed at 15 percent; now under the Finance Act 2022, this rate applies only to those persons whose profit does not exceed Rs 5 million;⁷ the rate is doubled for those not on the Active Taxpayer List (ATL); **b)** Rising interest rates led to higher returns on bank deposits investment in government securities, and national saving certificates, which aided WHT collections.

monthly draws until October 15, 2022. The scheme was temporarily suspended on November 15, 2022 until January 15, 2023.

⁶ NSTR is being implemented gradually across the country.

⁷ The scope of this reduced rate benefit has been cut back.

In case of contracts, taxable services were expanded to incorporate REIT management services and National Clearing Company of Pakistan Limited.⁸ Second, sale of goods or services under section 153, including edible oils, rice, transport services, freight forwarding services, air cargo services, courier services, among others, led to higher WHT collection due to inflationary spillovers.⁹

Withholding tax collection from electric bills also witnessed growth due to rise in per unit cost of electricity.¹⁰ Moreover, in order to increase tax net, retailers and some service providers have to pay fixed income tax through their electricity bills (Table 4.5).¹¹

Similarly, progressive rates for income tax slabs were revised upward in the budget. While slabs were reduced from 12 to 7, there was an increase in the tax liability of salaried individuals with taxable income nearer to the upper bound of the middle slab (Rs 2.4 million to Rs 3.5 million) or exceeding Rs 3.6 million (top three slabs), when compared to their tax liabilities under FY22 slabs. Besides this, salaries of government officials or employees were also raised in the FY23, which propped up the taxable income. These measures led to higher WHT collections under the sub-head of salaries in Table 4.4.¹²

Additionally, withholding tax on sale, purchase or transfer of immovable property

Withholding Tax on Retailers and Service Providers **Table 4.5**

Gross Monthly Bill	WHT
Where the amount does not exceed Rs. 30,000	Rs 3,000
Where the amount exceeds Rs. 30,000 but does not exceed Rs 50,000	Rs 5,000
Where the amount exceeds Rs. 50,000 but does not exceed Rs 100,000	Rs 10,000
Retailers and service providers as notified by the Board in the income tax general order	Up to Rs 200,000

Source: Finance Act 2022

was also enhanced from 1 percent to 2 percent. Furthermore, this tax was to be collected irrespective of the holding period.¹³ For purchasers not on the ATL, it would be increased by 250 percent. These measures led to higher WHT collections from the property transactions. Lastly, WHT collections from imports also received a push from increased tax rates – up from 2 percent to 3.5 percent; the rate is double for those importers not on the ATL.

Voluntary payments

Collections under this head rose significantly by 74.2 percent in H1-FY23, surpassing last year's 21.5 percent growth (Table 4.4). This growth can be traced to three main factors:

- a) Minimum tax on banks' income increased from 35 percent to 39 percent for FY23.
- b) Tax on income generated from investment in government securities, which is linked to

⁸ 'Contracts' here refer to section 153 of the Income Tax Ordinance 2001. And, section 153 includes sale of goods or services, and execution of contracts.

⁹ For instance, transport services witnessed 57.8 percent YoY inflation in H1-FY23. Source: Pakistan Bureau of Statistics

¹⁰ Electricity charges grew 31.4 percent in H1-FY23 over last year. Source: Pakistan Bureau of Statistics

¹¹ Source: Finance Act 2022

¹² BPS-2022 replaced BPS-2017 pay structure, and the pay brackets were revised upwards. Furthermore, ad-hoc relief fund at 15 percent of the basic pay was also rolled out; earlier it was 10 percent. Source: Ministry of Finance. Source: www.finance.gov.pk/circulars/circular_01072022.pdf

¹³ Earlier this tax was zero if holding period was more than 4 years.

Income Tax on Earnings from Government Securities Linked to Advance-to-Deposit (ADR) Ratio **Table 4.6**

Slab	FY22 & onwards	Previous Rate
ADR =< 40%	55%	40%
40% < ADR =< 50%	49%	37.5%
ADR > 50%	35% for FY22* 39% for FY23*	35%

*they are equal to the minimum taxes on banks' income in respective Tax Years

Source: Finance Act 2022

advances-to-deposit ratio (ADR), was enhanced for FY22 and onwards (**Table 4.6**).

c) Imposition of cascading super tax on high-earning persons under the new section 4C (**Table 4.7**). There was an upward revision in super tax from 4 to 10 percent for the banking companies whose income exceeded Rs 300 million for FY23.¹⁴ For non-bank firms, super tax of 10 percent was imposed retrospectively for FY22. Furthermore, banks' profitability amidst a high-interest rate environment was also considerably higher than the year before. In Jan-Dec 2022, banks' overall profit-before-tax was 55.8 percent higher than the comparable period last year. This resulted in higher income tax collections from banks in H1-FY23.

Collection on Demand:

Reversing the declining trend from last year, collection on demand grew by 142.7 percent in H1-FY23, against a low base. Main reason was that last year the recovery date of the tax payable claimed in demand notices by the FBR had been extended beyond 90 days – instead of 30 days – through the Finance Act

Super Tax on High Earning Persons for Fiscal Year 2023 **Table 4.7**

S.No	Income under section 4C	Rate for FY23
1	Where income does not exceed Rs.150 million	0%
2	Where income exceeds Rs. 150 million but does not exceed Rs. 200 million	1%
3	Where income exceeds Rs. 200 million but does not exceed Rs. 250 million	2%
4	Where income exceeds Rs. 250 million but does not exceed Rs. 300 million	3%
5	Where income exceeds Rs. 300 million	4%
6	Where income exceeds Rs. 300 million and the business is banking	10%
7	Where income exceeds Rs 300 million and persons are engaged in the business of airlines, automobiles, beverages, cement, chemicals, cigarette & tobacco, fertilizer, iron & steel, LNG terminal, oil marketing, oil refining, petroleum & gas exploration & production, pharma, sugar & textiles	10% for the FY22*

Note: S.No. 1 to 5 pertain to income from any business—banking or otherwise. S.No. 6 & 7 pertain to banking & a group of specific businesses, respectively, provided their income levels are exceeding Rs 300 million apiece.

*This tax applies retrospectively for the FY22

Source: Finance Act 2022

2021. In H2-FY22 and H1-FY23, impact of this extension tapered off.¹⁵

Another factor could be that issuance of assessment order in demand notices was extended from five to six years in the Finance Act 2022. Furthermore, FBR was also able to collect due income taxes from banks, which had not earlier deposited their quarterly

¹⁴ Until FY2022, super tax was being applied under section 4B—“Super tax for rehabilitation of temporary displaced persons”. In FY2023, a new section, 4C, was introduced---“Super tax on high-earning persons”, targeting the wealthier sections of the country.

¹⁵ In H2-FY22 and H1-FY23, CoD grew by 94 percent and 142.7 percent, respectively.

advance tax payments (voluntary payments). Given banks' high profitability, CoD received a major boost in H1-FY23.

Indirect taxes levelled off

Indirect taxes stood stagnant in H1-FY23, as they recorded a mere 0.2 percent YoY increase in the first half. Last year, they had grown by 37.8 percent, receiving major impetus from import-related taxes. In contrast, this year domestic collections stood out, as import-related taxes slumped below last year levels (Figure 4.6a).

Declining imports bring down import-related tax collection

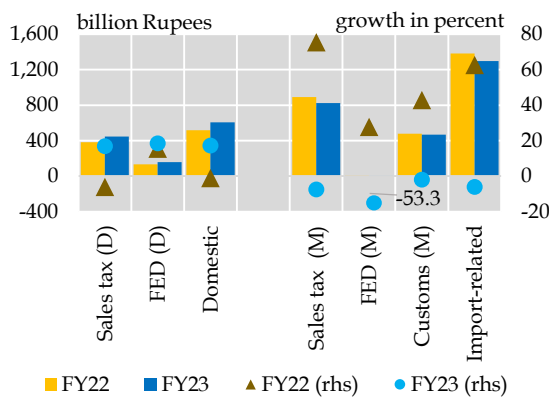
Collections under indirect import-related taxes dropped by 6.1 percent in the first half of FY23, against last year's high growth (Table 4.8). This imports (in PKR terms) fell in the second quarter, leading to lower collections under customs duties, sales tax,

and FED in the first half (Figure 4.6a and 4.6b).

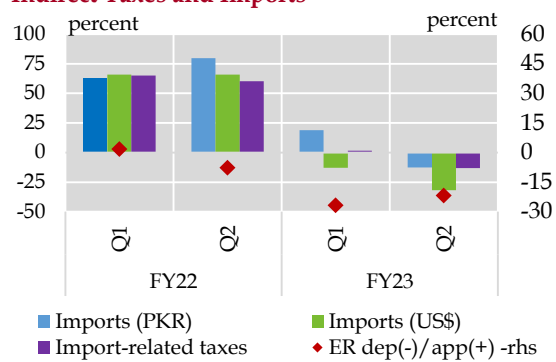
All these taxes declined in tandem with the fall in PKR-denominated imports bill in the second quarter.¹⁶ Steep depreciation in the first quarter had offset the revenue impact of decrease in USD-denominated imports bill. However, in the second quarter, a steep decline in import growth outweighed the impact of exchange rate depreciation. The adjacent fall in import-related taxes in the second quarter resulted in decline in the first half collections, compared to the same period last year.¹⁷ That said, PKR depreciation served as a cushion against the otherwise sharply contracting USD imports in the first half.

In terms of products, the decline in imports (in PKR terms) in the second quarter occurred in most of the major import categories, including vehicles, electrical and mechanical machineries, POL products, and

Breakdown of Indirect Taxes in H1 Figure 4.6a



Growth Rates of Import-related Indirect Taxes and Imports Figure 4.6b



Source: Federal Board of Revenue & Pakistan Bureau of Statistics

¹⁶ Import-related taxes and duties are assessed in PKR. Imports bill, originally recorded in US\$, is converted into PKR using the current exchange rate.

¹⁷ Collections of import-related taxes are directly linked to the PKR-denominated imports bill, other things constant.

Major Revenue Spinners of Import-related Indirect Taxes in H1**Table 4.8**

billion Rupees; growth and contribution in percent

	Collections		Growth in FY23	Contribution in FY23
	FY22	FY23		
Customs duties (M)	477.2	466.9	-2.1	-0.7
POL	112.5	90.1	-19.9	-1.6
Vehicles	94.5	43.7	-53.7	-3.7
Iron and steel	33	5.9	-82	-2.0
Photosensitive semiconductor devices	29	10.6	-63.4	-1.3
Machinery	23.4	12.2	-47.8	-0.8
Animal/vegetable fats & oils	20.4	14.1	-30.7	-0.5
Sales Tax (M)	892.3	824.9	-7.6	-4.9
POL	282.3	155.4	-45	-9.2
Vehicles	70.7	46	-34.9	-1.8
Iron and steel	71.8	65	-9.5	-0.5
Oil seeds & fruits	22.7	18.8	-17.5	-0.3
Photosensitive semiconductor devices	34.5	31.6	-8.5	-0.2
Animal/vegetable fats & oils	55.7	82.2	47.6	1.9
FED (M)	12.4	5.8	-53.3	-0.5
Import-related, total	1,381.8	1,297.5	-6.1	-4.4*
Indirect taxes, total	1,898.5	1,903.2	0.2	-

* Contribution in 'indirect taxes, total'. All other contributions are in relation to 'import-related, total'

Source: Federal Board of Revenue

iron and steel. The decline was due to the strong regulatory and administrative measures to curtail imports by the government, among other factors.¹⁸

With regards to the specific taxes, sales tax received bigger hit than the customs duties (Table 4.8). One reason was zero GST on four imported POL products, including petrol, kerosene, high-speed diesel oil, light diesel oil.¹⁹ Another reason was that sales tax is calculated on top of customs duties. With dutiable imports receding by 0.5 percent in H1-FY23 (10.6 percent in Q2), sales

tax collections dropped more sharply (7.6 percent in H1 and 15.2 percent in Q2) than the custom duties collection (2.1 percent in H1 and 8.3 percent in Q2).²⁰

Collections of domestic sales tax and FED shored up indirect taxes

Domestic collection of indirect taxes (sales tax and FED) increased by 17.2 percent in H1-FY23, after declining by 1.1 percent same period last year. This increase was led by different factors, including removal of GST exemptions through the Finance

¹⁸ For more details, see Chapter 5 - External Sector

¹⁹ GST on these products was removed in January 2022 through the Finance (Supplementary Act) 2022.

²⁰ For example, the assessed value of an imported good is Rs 100, customs duty is 10 percent and sales tax is 17 percent. First, customs duty is applied (Rs 100*1.1 = Rs 110), and then the sales tax on the resulting value (Rs 110*1.17 = Rs 128.7). Say, the same imported good is worth Rs 90 now; the values after customs duty and sales tax will be Rs 99 and Rs 115.83 respectively. The fall in sales tax collection (Rs 12.87) is more than customs duty collection (Rs 11).

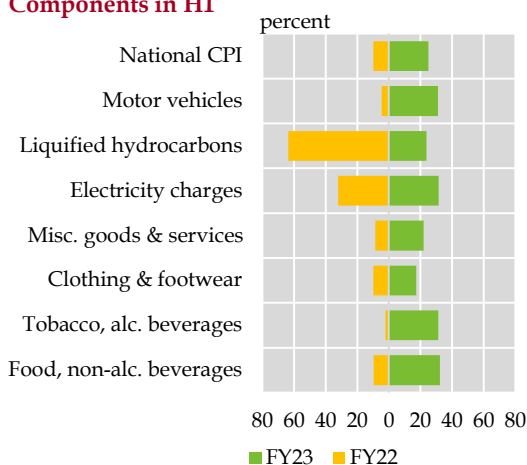
(Supplementary) Act 2022 and Finance Act 2022.²¹

Elevated inflation in the first half of FY23 also translated into higher GST collections, offsetting the adverse impact of lackluster economic activity and zero GST on the four imported POL products, as well as crude.²² Growth in the national CPI accelerated markedly in H1-FY23 from the year before (Figure 4.7). Major revenue spinners of domestic indirect taxes are shown in Table 4.9. Electrical energy was the major spinner for sales tax, given one-third increase in electricity charges in H1-FY23 from the year ago. In case of cigarettes and sugar, the Track and Trace System also aided in higher collections.

Furthermore, some revenue-mobilization measures were taken in the Finance Act 2022. For instance, the ambit of Tier-1 retailers was expanded by adding jewelers (except those with shop size less than 300 square feet) to the Tier-1 retailers' list.

Besides, to make Tier-1 and other retailers more compliant in their responsibility to register and integrate with the FBR's real-time reporting of sales system, a disincentive was created in the form of discontinuance of gas and electricity bills of retailers not registering for sales tax purposes. This provision was also applicable on other sales tax agents. Moreover, a monetary penalty system was also implemented in FY23 for the non-compliant Tier-1 retailers.²³

Growth in National CPI and its Components in H1 Figure 4.7



Note: alc. is short for 'alcoholic'
Source: Pakistan Bureau of Statistics

Table 4.9 shows there was a jump in GST collections from the sales of POL products. With zero GST on four imported POL products and crude, these collections represent still-in-place tax on other POL products, including furnace oil, HOBC, JP-1, and JP-8. With international crude prices trending higher than the year before and tying into the products prices, GST collections from other POL products came out 12.4 percent higher than last year.

Domestic FED collection, which witnessed greater growth than last year, was propelled by increase in the tax on cigarettes and air travel in club, business and first class (Table 4.9).

²¹ This phenomenon reflected in the revised tax expenditures for FY22, which showed year-on-year declines in sales tax exemptions for FY22. Source: Finance Act 2022

²² GST on crude and products was removed through the Finance (Supplementary) Act 2022 in January 2022 and in March 2022 through FBR's SRO No. 321(I)/2022, respectively.

²³ Penalty of Rs 500,000 for first default; one million for second default after 15 days of order for first default; two million rupees for third default after fifteen days of order for second default; three million rupees for fourth default after fifteen days of order for third default; notwithstanding above, premises might be sealed as well.

Major Revenue Spinners of Domestic Indirect Taxes in H1**Table 4.9**

billion Rupees; growth and contribution in percent

	Collections		Growth in	Contribution
	FY22	FY23	FY23	in FY23
Sales Tax (D)	382.7	447.1	16.8	12.4
Electrical energy	78.7	131.9	67.6	10.3
POL	68.9	77.5	12.4	1.7
Cigarettes	14	17.6	25.9	0.7
Sugar	31	33.9	9.2	0.6
Natural Gas	17.8	20.7	16.0	0.6
Cement	17.1	18.6	9	0.3
Aerated waters/beverages	9.8	10.5	6.7	0.1
Cotton Yarn	40.7	26.1	-35.9	-2.8
FED (D)	134	158.5	18.3	4.7
Cigarettes	52.6	63.1	20	2.0
Concentrates used in beverages & foods	8.3	13.3	59.9	1.0
Air travel	3.2	8	154	1.0
Motor Cars	6.9	11.5	67	0.9
Domestic, total	516.7	605.6	17.2	4.7*
Indirect taxes, total	1,898.5	1,903.2	0.2	-

* Contribution in 'indirect taxes, total'. All other contributions are in relation to 'domestic, total'

Source: Federal Board of Revenue

Non-tax Revenue

Non-tax revenue (NTR) swelled by 26.4 percent in H1-FY23, after declining by 14.6 percent last year (Table 4.10). Major drivers were petroleum levy, mark-up on loans extended to PSEs and others by the government, royalties on oil and gas, and dividend payments from PSEs.²⁴ Quarterly data further shows that the entire growth in the NTR occurred in the second quarter. Among other things, this was due to the below-target petroleum levy collections in the first quarter, and change in mechanism of transfer of SBP's profits to the government in H2-FY22.²⁵

In terms of budgeted annual targets, collections under the NTR were 50 percent of the target this year, as compared to last year's 36.8 percent. This was due to higher collections under the aforementioned sub-heads compared to the budgeted estimates.

Collections from petroleum levy in H1-FY23 surpassed last year's level. It was due to higher levels of the levy imposed in H1-FY23 (Figure 4.8), which also compensated for declining POL sales. It may be pointed out here that collections from petroleum levy were just 20.8 percent of the target, despite excelling last year's percentage. It was because the levy increased gradually to Rs 50

²⁴ 'Mark-up to PSEs and others' refers to mark-up collected from: cash development loans to the provincial governments; loans to local bodies, financial and non-financial institutions and other corporations; capital outlays of the Federal Government in the commercial departments.

²⁵ Instead of quarterly transfers, transfers are made annually – starting FY23. Notwithstanding that, the second quarter saw transfer of SBP's profits, which were arrears from last fiscal year.

Non-Tax Revenue (NTR) Collection in Pakistan

Table 4.10

billion Rupees; growth in percent

	Collections						Growth					
	Q1		Q2		H1		Q1		Q2		H1	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
Petroleum levy	13.3	47.5	56.7	130.3	70	177.8	-90.2	255.7	-59.2	130	-74.6	154
Mark-up (PSEs/ others)	19.5	28.8	13.1	48.8	32.6	77.6	-24.1	48	-28.4	272.1	-25.9	138.2
Royalties on oil/gas	21.7	20.7	17.3	36	39.1	56.7	48.5	-4.9	-15.5	107.7	11.2	45
Dividend	1.9	24.7	24.1	16.2	26	40.8	27.3	1,195.4	132	-32.8	118.8	57.2
Surplus profit of SBP	109	0	271	371.2	380	371.2	3.8	-100	1.3	37	2	-2.3
Profit PTA	30.1	13.1	8.8	19.5	38.9	32.6	269.2	-56.6	-16.1	122.1	108.9	-16.2
Passport fee	6.1	6.7	4.3	9.7	10.4	16.4	106.7	9.9	6.8	126.2	49.2	57.9
Defense receipts	2.8	3.8	4.9	5.5	7.7	9.3	-1.3	33.5	34.3	11.4	18.6	19.5
GIDC	6.5	3	4.6	3	11.2	6	30.8	-54	2.1	-35.1	17.1	-46.1
Total NTR	275.7	234.9	489.2	732.2	764.9	967.1	-22.6	-14.8	-9.2	49.7	-14.6	26.4

Source: Ministry of Finance

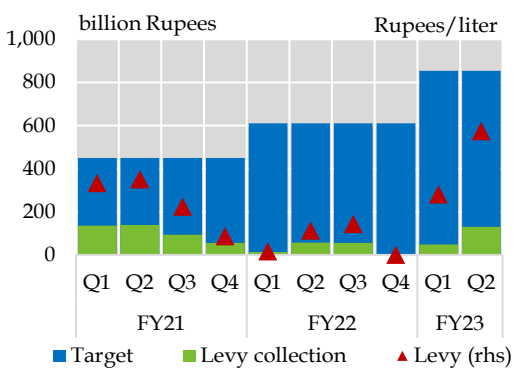
per litre – as budgeted – during the first half of FY23, in order to mellow down associated inflationary impact on the masses.

Mark-up payments by PSEs and others also saw a jump of 138.2 percent against last year’s decline. This was in tandem with the trend of policy rate (Figure 4.9). For the year

FY22, Ministry of Finance had raised the mark-up rate from 10.3 to 11.2 percent, leading to higher mark-up payments to the government in FY23.²⁶

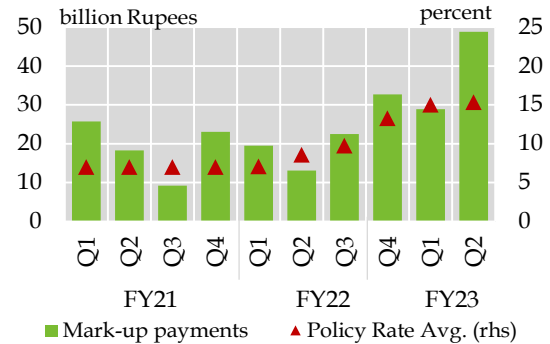
Royalty payments also witnessed growth in H1-FY23. Elevated international crude prices, coupled with exchange rate

Quarterly Petroleum Levy Collections Vis-a-Vis Annual Targets Figure 4.8



Source: FBR, MoF, and OGRA

Mark-up Payments Linked to Policy Rate Environment Figure 4.9



Source: Ministry of Finance & State Bank of Pakistan

²⁶ For the year FY21, the government had cut back the mark-up from 12.2 percent to 10.3 percent. Source: www.finance.gov.pk/circulars/circular_17112022.pdf

State of Federal Expenditures in H1**Table 4.11**

billion Rupees, growth in percent

	Cumulative Flows		YoY Growth		Percent Contribution in Expenditure Growth		As Percent of GDP	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
Total expenditures* (a+b)	3705.7	4567.2	20.4	23.2	20.4	23.2	5.6	5.6
(a) Current expenditure	3351.3	4390.2	19.4	31.0	17.7	28.0	5.0	5.2
Mark-up payments	1452.9	2573.1	-1.5	77.1	-0.7	30.2	2.2	3.1
Domestic	1312.5	2273.5	-3.3	73.2	-1.4	25.9	2.0	2.7
Foreign	140.4	299.6	18.7	113.4	0.7	4.3	0.2	0.4
Non-interest current spending	1898.5	1817.1	42.5	-4.3	18.4	-2.2	2.8	2.2
Defence affairs and services	520.5	638.9	7.0	22.7	1.1	3.2	0.8	0.8
Pension	251.7	321.2	19.6	27.6	1.3	1.9	0.4	0.4
Running of civil govt.	209.9	226.7	7.4	8.0	0.5	0.5	0.3	0.3
Subsidies	313.4	196.6	143.0	-37.3	6.0	-3.2	0.5	0.2
Grants to provinces and others	603.0	433.7	94.1	-28.1	9.5	-4.6	0.9	0.5
Grants to provinces	54.1	44.6	19.4	-17.6	0.3	-0.3	0.1	0.1
Grants to others	548.9	389.2	106.9	-29.1	9.2	-4.3	0.8	0.5
(b) Development expenditure and net lending	354.3	177.0	31.2	-50.1	2.7	-4.8	0.5	0.2
Total development expenditure	288.3	161.7	18.6	-43.9	1.5	-3.4	0.4	0.2
PSDP	288.3	161.7	24.2	-43.9	1.8	-3.4	0.4	0.2
Development grants to provinces	88.7	25.3	56.5	-71.4	1.0	-1.7	0.1	0.0
Net lending	66.0	15.2	145.3	-77.0	1.3	-1.4	0.1	0.0
Provinces	59.9	-30.5	-456.4	-150.9	2.5	-2.4	0.1	0.0
Others	6.1	45.7	-86.1	650.6	-1.2	1.1	0.0	0.1

* Excluding statistical discrepancy

Source: Ministry of Finance

depreciation, led oil and gas exploration public sector enterprises, like OGDC and PPL, to thrive and generate higher sales revenues, thereby pushing up payments of royalties and levies.^{27, 28}

4.3 Federal Expenditures²⁹

During H1-FY23, federal expenditures grew by 23.2 percent compared to 20.4 percent in the corresponding period last year. The upsurge was mainly led by broad based

increase in current spending, mainly the markup payments, pension, defence affairs and services and running of civil governments (**Table 4.11**). The federal development spending on the other hand fell sharply during first half of FY23.

Federal Current Expenditures

Federal current expenditures witnessed significant growth of 31.0 percent during H1-FY23, as compared to 19.0 percent growth in H1-FY22. Almost 60 percent of the

²⁷ According to the Ministry of Finance, royalty is 12.5 percent of the gate value of petroleum. Source: Explanatory Memorandum on Federal Receipts

²⁸ Royalty paid by the OGDC and PPL rose by 37.8 percent and 74.5 percent in H1-FY23, respectively.

²⁹ The discussion in this section is based on expenditures excluding statistical discrepancy.

expansion seen in current spending came from interest payments, which were mainly driven by domestic markup payments. Rest of the contribution came from higher spending on defence affairs and services, running of civil government and pension accounts (Table 4.11). The fall in non-interest current spending in H1FY23 was in line with the downward revisions in quarterly ceilings on grants and appropriations (Figure 4.10).³⁰

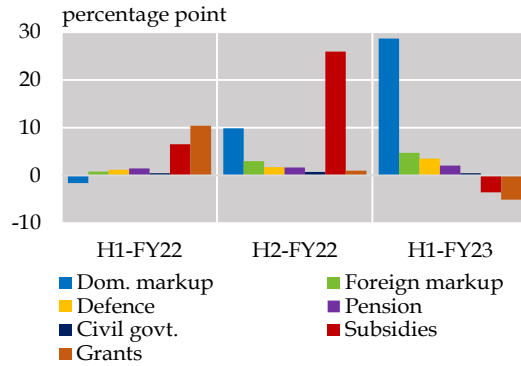
Interest spending increased sharply

The markup payments grew by 77 percent and reached Rs 2.6 trillion in H1-FY23 mainly on account of substantial surge in interest expense on domestic debt. External debt servicing also showed a significant increase of 113.4 percent during H1-FY23.

In Budget FY22-23, the government had allocated Rs 3.9 trillion for markup on both external and domestic debt.³¹ However, the interest payments have crossed 65 percent of full year target in December 2022. This is in contrast to H1-FY22, when the interest payments could only had stretched to 47.5 percent of fiscal year target of Rs 3.0 trillion. Consequently, the full year payments also remained broadly under the assigned limits. The significant escalation in outstanding debt stock, increasing interest rate environment and growing share of floating rate debt mainly explain the rising momentum in domestic interest payments during H1-FY23.

The foreign interest payments edged up due to sharp depreciation of PKR against the US dollar and the resumption of markup

Growth Contribution in Federal Current Expenditures Figure 4.10



Source: Ministry of Finance

payments to bilateral creditors after expiration of Debt Service Suspension Initiatives (DSSI).³²

The increasing share of interest spending not only puts pressure on existing constrained resources, it also reduces available fiscal space for other expenditures, specially the development spending (Figure 4.11a and 4.11b).

Broad-based deceleration in grants and subsidies

The expenses on federal grants and subsidies experienced marked slowdown during H1-FY23 compared to H1-FY22. The sluggish movement in these outlays is also visible from lower actual expenses relative to budgeted targets in H1-FY23 (Figure 4.12)

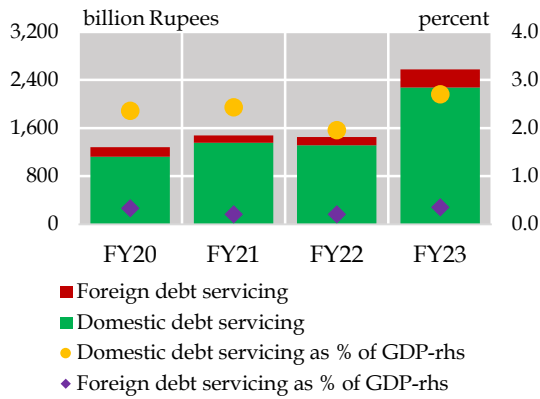
Grants: The disbursement of grants fell by 28.1 percent to Rs 433.7 billion in H1-FY23 from Rs 603 billion in H1-FY22. The deceleration was broad-based with notable

³⁰ On 24 Aug 2022, the Finance Division squeezed the target of recurrent budget to maximum of 17% in quarter 1, previously the assigned limit was 20% for Q1-FY23. Source: Budget Updates, No F. 3(l)FO/2022-23, dated August 24, 2022, Budget Wing, Finance Division.

³¹ The target was around 30 percent higher than Rs 3.1 trillion envisaged for FY22.

³² For details, see Section 4.5

Trend in Interest Payments in H1 Figure 4.11a



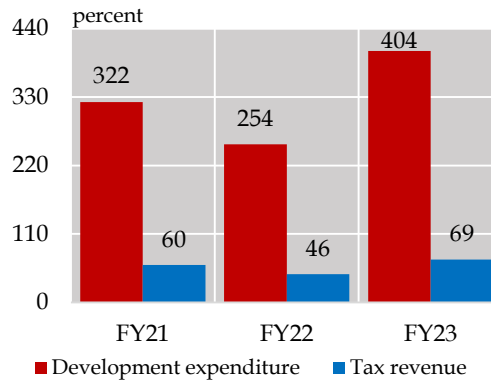
Source: Ministry of Finance

decline observed in grants payout to contingent liabilities account, Covid-related programs, railways and HEC.

The Benazir Income Support Program (BISP) was a major beneficiary of federal grants of Rs 192 billion in H1-FY23, compared to Rs 65.4 billion in same period last year. A part of the BISP was allocated to provision of emergency cash assistance to flood affected families. Initially the government had announced a cash assistance package of Rs 28 billion, however with heightened severity of human crisis, the target was increased to Rs 70 billion. Through BISP, government provided emergency cash assistance of Rs 25000 per family in calamity hit districts; as of December 2022, around 2.76 million families were assisted under BISP in flood affected regions of all provinces including GB (Figure 4.13).³³

The rest of BISP payments of around Rs 122 billion were directed to support other

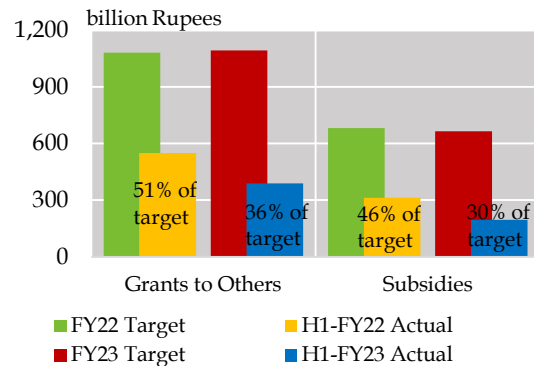
Markup Payments Relative to Development Expenditures and Figure 4.11b



Source: Ministry of Finance

ongoing programs including Unconditional Cash Transfer (UCT) and Conditional Cash Transfer (CCT) programs. Under the major UCT scheme i.e., ‘Benazir Kafaalat’, BISP released Rs 55 billion to disburse per family cash assistance of Rs 7000 to around 7.7 million families. Within CCT program, ‘Benazir Taleemi Wazaif’ scheme received Rs 13 billion to dispense scholarships to the children of BISP beneficiaries.³⁴ To support

Target Versus Actual Estimates of Federal Subsidies and Grants Figure 4.12

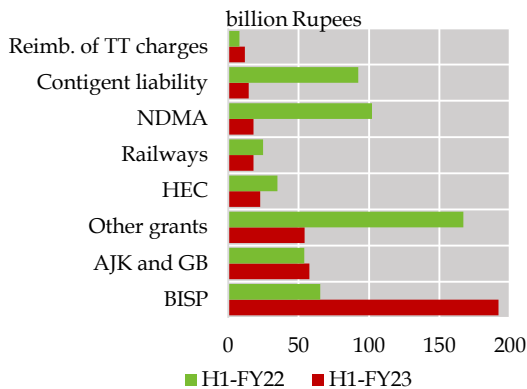


Source: Ministry of Finance

³³ Source: Benazir Income Support Program. www.bisp.gov.pk/

³⁴ According to BISP, Benazir Taleemi Wazaif Scheme was initially introduced in Nov 2012 in five districts around the country; the coverage expanded gradually, and in 2020 all districts of the country were

Disbursement of Federal Grants Figure 4.13



Source: Ministry of Finance

children's health, BISP runs another CCT program named as 'Benazir Nashonuma' the coverage of this program has been extended to 118 districts with 169 facilitation centers are made operationalized.^{35, 36}

The major fall in grants came under grants to National Disaster Management Authority (NDMA), mainly due to suspension of Covid-related programs in FY23. During FY22, government issued number of grants to Ministry of National Health Services Regulation and Coordination (NHSR&C) under different vaccine programs such as IVAC, Asia Pacific Vaccine program, and

Pandemic Response Effectiveness in Pakistan.³⁷ These grants were supported by multilateral institutions such as World Bank, IDB and ADB. Besides, in H1-FY22, government also disbursed Rs 102 billion to NDMA for National Disaster Management Fund (Covid-19). During H1-FY23, NDMA received funds of Rs 18.0 billion to arrange procurement of relief goods and logistics related to flood related rescue, relief and rehabilitation activities (Figure 4.14).

Subsidies: The volume of overall subsidies declined to Rs 196.6 billion during H1-FY23 compared to Rs 313.4 billion in the same period last year. In terms of GDP, overall subsidies recorded at 0.8 percent in H1-FY23 against 1.3 percent in H1-FY22.

The releases of both energy and non-energy subsidies remained low (Figure 4.15), most of the deceleration was evident in subsidies to energy sector. The payments to major energy entities such as IPPs, Wapda/Pepco, K-Electric and SNGPL remained considerably lower than the amount envisaged in budget 2022-23 (Figure 4.16). These payments were due against different heads including: 1) industrial support packages;³⁸ 2) RLNG support to general

covered. Under this scheme, the children of BISP families are provided with quarterly stipend (varied with sex, age and education level) with the condition of enrolment in school and 70 percent attendance in enrolled institution. As of Jun 2022, 9.4 million children have been enrolled in the scheme, Rs 40 billion has been disbursed, of which Rs 20 billion was disbursed in FY22 alone to 5.2 million students.

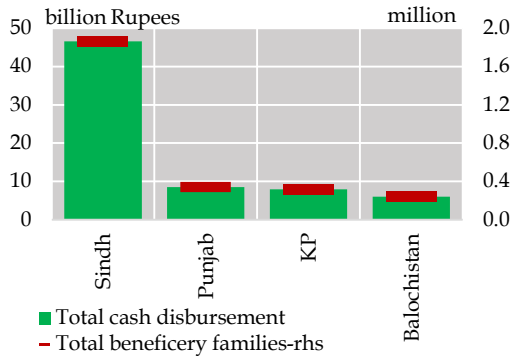
³⁵ The objective of Benazir Nashonuma program is to address the stunting prevention in children during the first two years. Under this CCT scheme, the additional quarterly payments (Rs 2000- Rs2500) are made to BISP beneficiary families with the condition that mother attends regular antenatal health checks and awareness sessions during pregnancy, consuming specialized nutritious food (SNF), and completes child's immunization and regular health checks.

³⁶ Source: Press Release No. 290, Finance Division, Government of Pakistan

³⁷ Source: Finance Division, Government of Pakistan

³⁸ The industrial support package was announced in November 2020, in which the peak and off-peak tariff structure for industrial consumers were abolished initially for the period from Nov2020 till April 2021, however the package was extended till Jun 2022 and then till October 2023. (Source: NEPRA (2021, State of Industry Report)

Coverage of Emergency Cash Assistance through BISP **Figure 4.14**



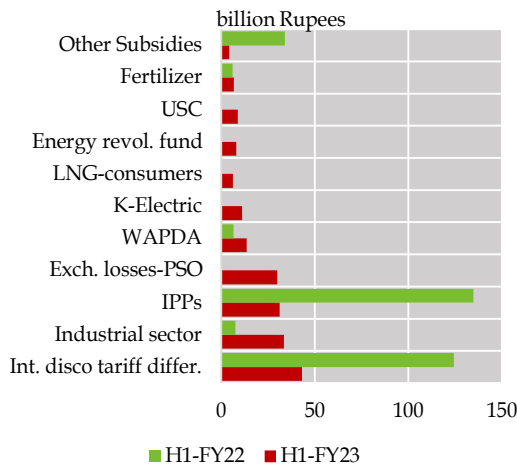
Source: National Disaster Management Authority, Floods (2022) SITREP - 2022

industry, zero-rated export sectors and consumers; 3) consumers of FATA; 4) tube well subsidy to agriculture-sector in

Baluchistan and 5) tariff differential subsidy to AJK government.

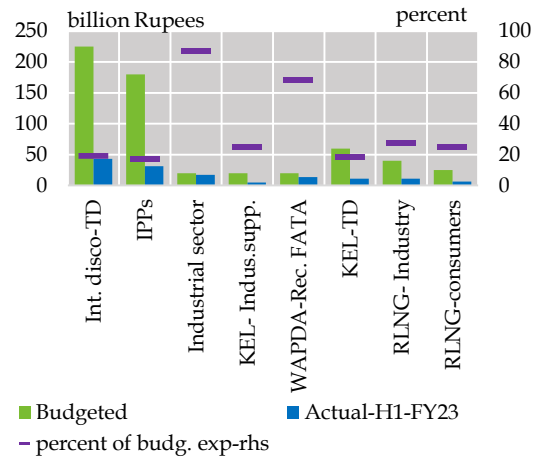
Keeping in view the growing volume of outstanding subsidies, government initiated different measures to resolve prevalent structural issues especially in power and gas sector. For instance, to address the growing circular debt in gas sector, ECC approved the upward revision in gas prices for different consumer categories including commercial connections, general industry, domestic consumers, captive power and CNG sector etc.³⁹ These prices were approved and subsequently announced by OGRA in February 2023 and are applicable from January 2023.⁴⁰ The ECC also streamlined subsidized energy charges to five export-oriented sectors;⁴¹ particularly the RLNG

Disbursement of Federal Subsidies **Figure 4.15**



Source: Ministry of Finance

Energy Subsidies--Absolute Amount and Realized as Percent of Budgeted Expenditures **Figure 4.16**



Source: Ministry of Finance

³⁹ The circular debt in gas sector rose due to non-revision of gas prices in line with revenue requirement, gas sector CD edged up to Rs 1.2 trillion by end-June 2022 from Rs 3 billion in end-June 2018.

⁴⁰ Source: Oil and Gas Regulatory Authority, Gas Price Notification, effective January 01, 2023.

⁴¹ In August 2021, the government announced to provide energy to five export-oriented sectors namely textile, jute, leather, carpet, surgical and sport goods at regional competitive rates with an objective to reduce cost of manufacturing and enhance exports. Source: Press Release No. 79, Ministry of Finance

charges increased from US\$ 6.5 per MMBTU to US\$ 9 per MMBTU in July 2022.⁴²

Government also made upward revisions in electricity tariff in Jul-Dec FY23.

Pension and salaries expenses rose significantly during H1-FY23

Similar to H1-FY22, both pensions and running of the civil government expenditures grew significantly during H1-FY23. In addition to relief measures for current and retired employees announced in FY22, the government provided 15 percent ad-hoc relief allowance to all federal employees and employees of autonomous/semi-autonomous bodies and corporations in July 2022.⁴³ Besides, government also announced upward revisions in salary scale of BPS-1 to BPS-21 civil servants.⁴⁴

For pensioners, the government made upward adjustments in existing rate of increase in pension from 10 percent granted in 01-April-2022 to 15 percent with effect from Jul 1st, 2022, this revision was applicable for civil and armed forces retirees.⁴⁵ All of these measures accelerated the overall expenditures incurred on running of civil government (mainly salaries).

Federal Development Expenditures

In the absence of sufficient fiscal space and external support to deal with catastrophic floods, government made a major reallocation of funds from development projects to flood relief activities. Resultantly, the outlays of federal PSDP slashed by 44 percent from Rs 270 billion in H1-FY22 to Rs 162 billion in first half of FY23 (**Figure 4.17**).

Aside from flash floods, fiscal imbalances that began to rise in H2-FY22 also put a dent on the development spending. In the last two quarters of FY22, the government realigned the spending priorities and cut number of projects from 371 to 170, the full year PSDP recorded at Rs 550 billion against the target of Rs 900 billion. The government was cognizant of the lingering fiscal issues and set a lower PSDP target of Rs 800 billion for FY23. However, the unprecedented floods further narrowed the PSDP spending which could only reach 25.4 percent of the full year target in H1-FY23 (**Figure 4.17**). These disbursements did not even meet revised targets announced in federal PSDP release strategy in August 2022.⁴⁶ The limited provision of development funds is also visible from the current

⁴² Source: Economic Survey 2021-22 and Press Release No. 79, Ministry of Finance

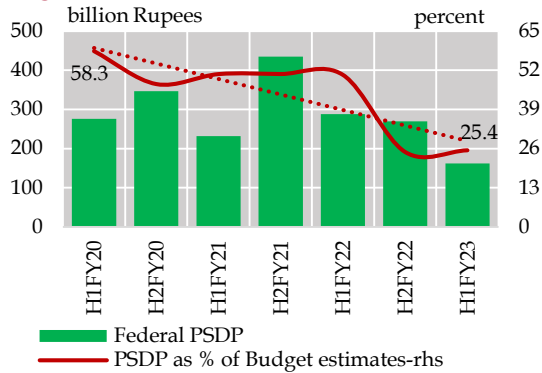
⁴³ Measures from FY22 included ad-hoc relief allowance of 10 percent for federal and autonomous/semi-autonomous bodies and corporations, increase in integrated orderly allowance and minimum wage and upward revision in pension.

⁴⁴ Office Memorandum F. No. 1(2) Imp/2022-283, dated July 01, 2022, Regulations Wing, Finance Division

⁴⁵ Office Memorandum No. F.4 (1) Reg.6/2022-486, dated July 01, 2022, Regulations Wing, Finance Division

⁴⁶ In the initial PSDP release strategy announced in July 2022, PSDP was targeted at the level of 20 percent for Q1, 5 percent for Q2, 30 percent for Q3 and 25 percent for Q4. In August 2022, government issued a revised release strategy according to which the funds shall be released at maximum level of 10 percent for Q1, 20 percent for Q2, 30 percent for Q3 and 40 percent for Q4 of the approved budget. Source: Strategy

Half Yearly Trend in Federal PSDP **Figure 4.17**



Source: Ministry of Finance and Planning Commission

ministry/division-wise summary of PSDP allocation during Jul-Dec 2023 (Table 4.12).

The major development projects envisaged in Budget 2022-23 include; i) ongoing development project in merged districts of Khyber Pakhtunkhwa; ii) construction of roads and infrastructure specially motor way sections; iii) major dams, including Diamer Basha and Mohmand dams; and iv) power projects such installation of coal fired power project in Jamshoro and enhancement in transmission capacity of NTDC system etc.

4.4 Provincial Fiscal Operations

The consolidated provincial surplus declined to Rs 101.2 billion during H1-FY23, from Rs 480.8 billion in same period last year. The deceleration in surplus mainly came on account of lower revenue generation in Q1-FY23, which was further exacerbated by higher development and current expenditures incurred during Q2-FY23 (Table 4.13 and Figure 4.18). By the end of H1-FY23, the surplus could only reach 13.5

for Release of Funds for Development Budget Financial Year 2022-23, issued on July 07, 2022 and August 04, 2022.

PSDP Targets vs. Disbursements **Table 4.12**
billion Rupees

Ministry/ Division	PSDP Allocation	Expenditure	
		Jul-Dec	Percent of Allocation
Provinces and Special Areas (Previously under FD/KA&GB)	139.6	20.6	14.7
National Highway Authority	117.3	25.9	22.1
Water Resources Division	97.6	22.1	22.6
Cabinet Division	87.1	13.2	15.2
Higher Education Commission	44.7	5.2	11.6
NTDC / PEPSCO	43.0	36.5	84.8
Planning, Development & Special Initiatives Division	37.2	1.4	3.8
3 Railways Division	32.6	4.5	13.7
Housing & Works Division	18.7	2.6	14.1

Sources: PSDP 2022-23, Ministry / Division-wise Summary (July - December, 2022), Planning Commission Ministry of Planning, Development & Special Initiatives

percent of fiscal year target which recorded at a mere 0.1 percent of GDP.

From the provincial accounts, the most notable deceleration came from Punjab followed by Balochistan and Sindh. KPK on the other hand posted a deficit of Rs 5.4 billion (Figure 4.19).

Provincial Revenues

The overall provincial revenues witnessed a relatively modest growth of 2.6 percent

Provincial Fiscal Operations

Table 4.13

billion Rupees, growth in percent

	H1- FY22	H1- FY23	YoY growth		Q1- FY23	Q2- FY23	YoY growth	
			H1- FY22	H1- FY23			Q1- FY23	Q2- FY23
A. Total revenue (a+b+c)	2,235.8	2,293.1	34.8	2.6	1,050.7	1,242.4	-2.5	7.3
a. Provincial share in federal revenue	1,694.3	1,880.0	32.4	11.0	880.3	999.7	9.0	12.7
b. Fed loans and transfers	202.7	39.4	138.0	-80.6	-10.6	49.9	-110.4	-50.8
c. Provincial own revenue	338.8	373.7	15.6	10.3	180.9	192.8	7.0	13.5
Taxes	271.2	303.0	10.3	11.7	148.2	154.9	9.9	13.5
Non-taxes	67.6	70.7	43.1	4.5	32.8	37.9	-4.3	13.6
B. Total expenditures (a+b+c)	1,755.0	2,191.9	25.1	24.9	832.7	1,359.2	4.0	42.4
a. Current	1,396.2	1,733.3	9.0	24.1	714.0	1,019.3	10.2	36.2
b. Development	365.8	454.4	60.7	24.2	152.2	302.2	-1.0	42.6
c. Statistical discrepancy	-6.9	4.1	-93.4	-160.0	-33.6	37.7	3,693.2	-724.3
Overall balance (A-B)	480.8	101.2	88.4	-79.0	218.0	-116.9	-21.3	-157.3

Source: Ministry of Finance

during H1-FY23; this was mainly due to slowdown in growth of federal transfers to provinces and provincial own revenues.

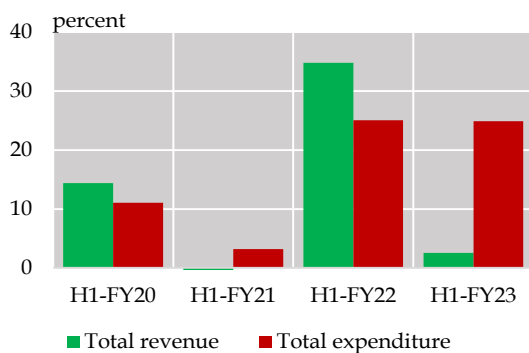
Further deceleration came from fall in federal loans and transfers. The own-source revenue collection posted an increase of Rs 373.7 billion in H1-FY23 against Rs 338.8 billion in H1-FY22. Most of the expansion emerged from tax revenues, which edged up by Rs 303

billion. Within tax revenues, sales tax on services witnessed significant collection in all provinces followed by other taxes and stamp duties.

The province-wise breakup suggests that Punjab posted the largest tax collection, followed by Sindh and KPK (Figure 4.20). In their respective budgets presented for 2022-23, different tax measures were announced

Provincial Revenues and Expenditures (YoY Growth)

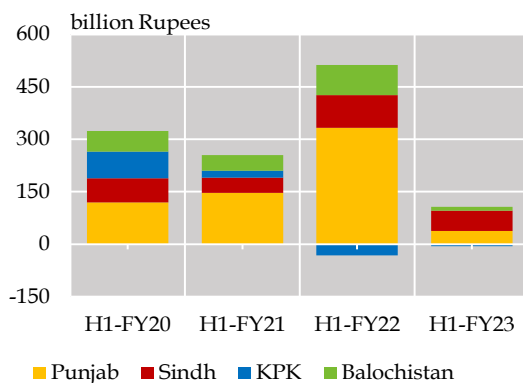
Figure 4.18



Source: Ministry of Finance

Provincial Surplus during H1

Figure 4.19



Source: Ministry of Finance

by the provinces. For instance, tax reform measures undertaken by Punjab revenue authorities include; 1) extension of the reduced rate of sales tax on services for more than 30 sectors; 2) synchronization of provincial tax procedures with other revenue authorities including FBR; 3) 90 percent motor vehicle registration and token tax exemption on electric vehicles; 4) increase in stamp duty for urban areas from 1 percent to 2 percent; 5) increase in rate on luxury house tax.⁴⁷

Similar to the last fiscal year, the provincial authorities in Sindh did not announce any new tax in Budget 2022-23. Moreover, GoS has undertaken number of measures including; 1) special moratorium is placed on collection of cotton fee, professional tax and entertainment duty; 2) exemption of levy on Sindh Infrastructure Development Cess for export oriented sector; 3) exemption of sales tax on services on toll manufacturing services and reduced rate on recruiting agents; 4) reduced rate of levy of 10 percent for services provided by cable TV operators, whereas those operating in rural areas with PEMRA license 'R' are exempted from SST; 5) Reducing the rate of SST from 13 percent to 8 percent for commission charges received by food delivery channels from home chefs.⁴⁸

The KPK government maintained the reduced rate of taxes announced in last fiscal year for Budget 2022-23. Besides, on first time registration of motor vehicles, consumer will get 20 percent exemption in excise duty. The government also announced zero tax on land with full exemption from capital value tax (CVT) and registration fee.⁴⁹

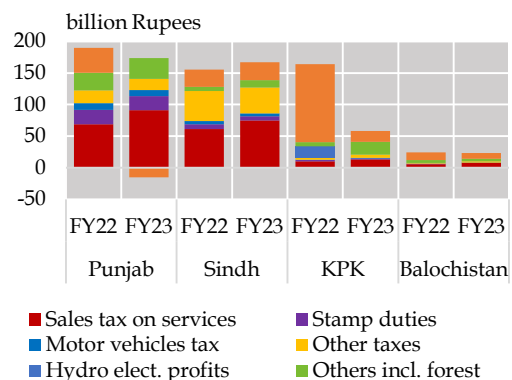
The non-tax provincial revenues decelerated sharply from 43.1 percent in H1-FY22 to 4.5 percent in H1-FY23. The dismal growth is mainly attributed to non-transfer of hydroelectricity profit in the provincial exchequer specifically to the accounts of Khyber Pakhtunkhwa.

Federal loans and grants which are mainly released to finance ongoing development expenditures in merged districts of Khyber Pakhtunkhwa received only Rs 39.0 billion in current year as against Rs 202.7 billion in H1-FY22.

Provincial Expenditures

The growth in overall provincial expenditures remained almost unchanged at 24.9 percent during H1-FY23 compared to last year. The expansion was driven by current expenditures; whereas, development expenditures saw moderation in growth during H1-FY23 (Figure 4.21).

Major Source of Provincial Revenues Figure 4.20 (Excl. Share in Federal Revenues)



Source: Ministry of Finance

⁴⁷ Source: Budget Highlights, 2022-23, Finance Department, Government of Punjab

⁴⁸ Source: Budget Speech, 2022-23, Finance Department, Government of Sindh

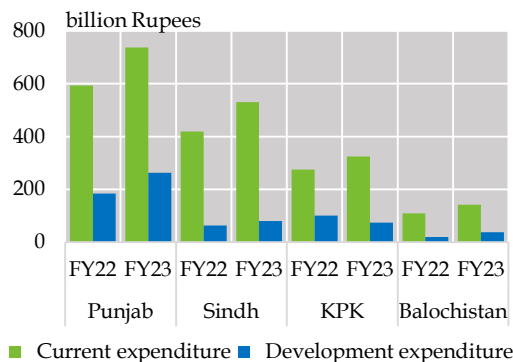
⁴⁹ Source: Budget Speech, 2022-23, Finance Department, Government of Khyber Pakhtunkhwa

The increase in current expenditures is primarily attributed to expenses by executive & legislative organizations, financial and fiscal affairs which mainly cover salaries and pension expenditures of respective provinces. More specifically, Punjab has announced 15 percent increment in salaries for all employees along with a special allowance of 15 percent for those employees who are currently receiving allowances lower than the assigned limits.⁵⁰

Whereas, Sindh provided the adhoc relief allowance at the rate of 15 percent in addition to disparity allowance of 33 percent (on basic pay) for employees fall in the grade of BPS1-16 and 30 percent for higher cadre employees. Khyber Pakhtunkhwa issued an adhoc relief allowance at the rate of 15 percent excluding disparity reducing allowance (DRA); the province also announced 15 percent increment in pensions for FY23.

Moreover, education, health, public order and safety and social protection remained focus of current spending for almost all

Provincial Current and Development Expenditure Revenues during H1 Figure 4.21



Source: Ministry of Finance

⁵⁰ Budget Speech, 2022-23, Finance Department, Government of Punjab

⁵¹ Source: White Paper, Budget FY2022-23, Finance Department, Government of Punjab

provinces in H1-FY23. Specific to education sector, Sindh spent Rs 115.5 billion during H1-FY23, the amount represents around 22 percent of province’s current expenditures and surpassed the aggregate education expenses of Punjab, KPK and Balochistan of Rs 88.6 billion. Health spending remained a major focus in almost all of the provinces with most of the spending directed to hospital services and health administration.

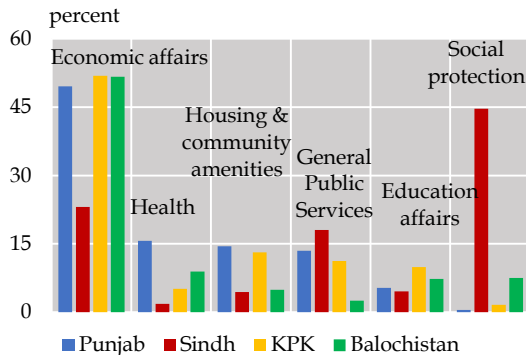
The spending under transfers remained robust specifically in Punjab, this spending reflects the transfer of funds to district health and education authorities with an aim to empowering local governments to address public needs.⁵¹

The provincial development spending increased by 24.2 percent in H1-FY23 against the expansion of 60.7 percent achieved in H1-FY22. Construction and transport remained priority of development spending in Punjab, KPK and Balochistan. The focus of Sindh’s development spending was remained on agriculture and allied sectors and provision of social protection services. KPK disbursed most of the development spending on transport and construction, agriculture and allied sectors, community development program and tertiary education affairs and services during H1-FY23 (Figure 4.22).

4.5 Public Debt

The stock of outstanding public debt edged up to Rs 52.7 trillion at the end of December 2022- an addition of Rs 3.5 trillion in H1-FY23 compared to Rs 2.8 trillion in H1-FY22. The pace of debt accumulation during H1-FY23 was around 7.2 percent, quite similar to

Development Spending Priorities Figure 4.22
(Share in Development Expenditures)

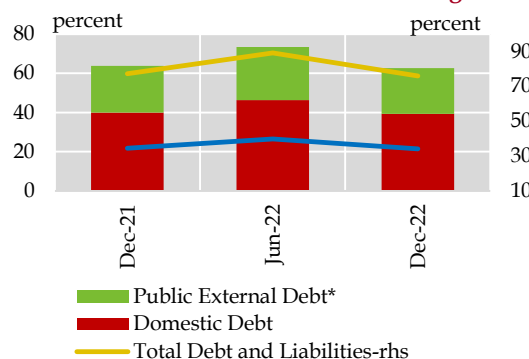


Source: Ministry of Finance

the corresponding period last year. Whereas, in terms of GDP, the public debt reduced to 62.7 percent at the end of December 2022 compared to 63.8 percent in end-December 2021 (Figure 4.23).⁵²

The major increase in the public debt during H1-FY23 came from domestic sources; it contributed around 58.9 percent (Figure 4.24). The underlying cause of this increase in domestic debt was a large fiscal deficit and inadequate external inflows. Resultantly, the

Debt Indicators as Percent of GDP Figure 4.23



*Government External Debt + Debt from IMF
Estimated GDP for FY23

Source: State Bank of Pakistan

GoP had to rely on domestic debt to fulfil its financing requirements.

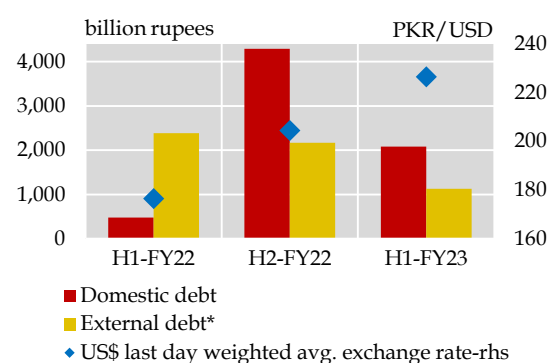
Moreover, there was a decline in the stock of external debt (in US dollar) which resulted from scheduled principal repayments and limited foreign financing.

In terms of maturity, the public debt inclined towards long-term instruments with the addition of PIBs and GoP Ijara Sukuks, and the retirement of short-term instruments such as T-bills (net of maturity) and external commercial loans (Figure 4.25a, 4.25b & 4.25c).

Although the lengthening of debt profile has reduced the rollover risk, the repricing risk has increased as a bulk of financing was raised through floating rate instruments. As these instruments' coupon payments (or rental rates) are linked to 3-month and 6-month T-bills, spike in interest rates has led to repricing risk along with soaring interest payments on domestic debt.

In the backdrop of growing debt servicing, both domestic and external, accompanied by

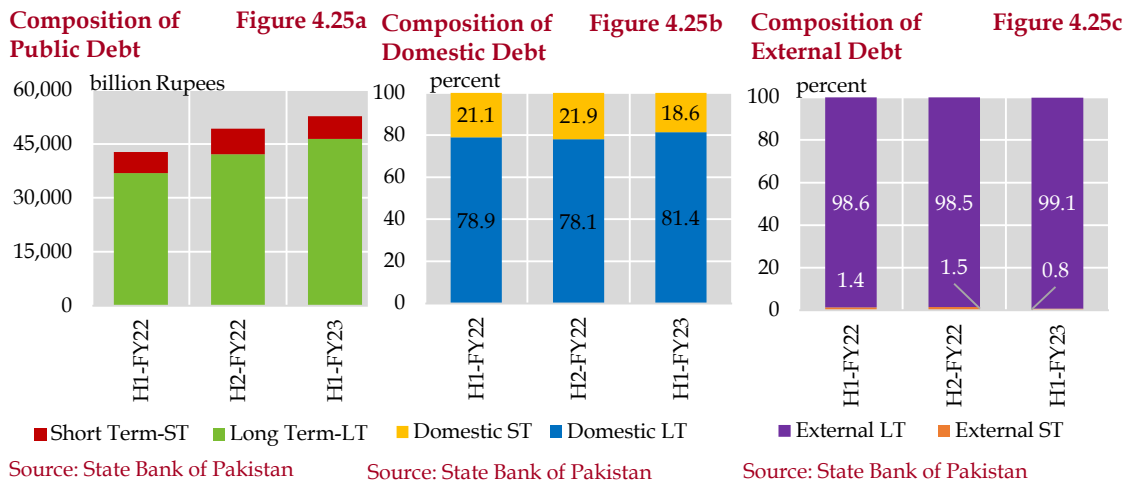
Composition-wise Change in Public Debt Figure 4.24



*including debt from the IMF

Source: State Bank of Pakistan

⁵² Public debt for the end of December 2022 is measured against the estimated GDP for FY23.



lower than targeted FBR revenues and lower external inflows, the repayment capacity of the country has deteriorated during H1-FY23 (Figure 4.26).⁵³ The FBR’s revenue collection remained below the target owing to a sharp drop in imports⁵⁴, whereas, the decline in foreign exchange earnings (FEE) was due to sluggish exports and workers’ remittances. Moreover, the investments in NPCs also

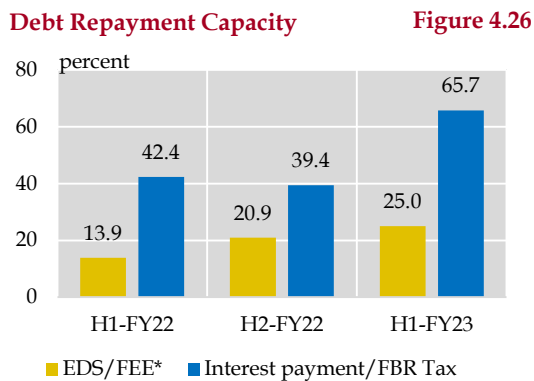
decreased (Figure 4.27). The slack in NPCs came from monetary tightening by the central banks, especially Fed, and rise in the country risk. Moreover, in line with increasing Fed rate, the uptick in LIBOR amplified external interest payments due to flexible rate external debt.

Domestic Debt

The stock of domestic debt increased to Rs 33.1 trillion at the end of December 2022- a growth of 6.7 percent in H1-FY23 compared to 1.8 percent in H1-FY22 (Table 4.14). The underlying factors for this surge were increase in financing requirements and inadequate external inflows, which compelled the government to rely on domestic market despite high interest rates.

Most of the government debt was financed through non-banks in H1-FY23

The institution-wise data illustrates that most of the domestic debt during H1-FY23 came from non-banks amid their keen interest in T-



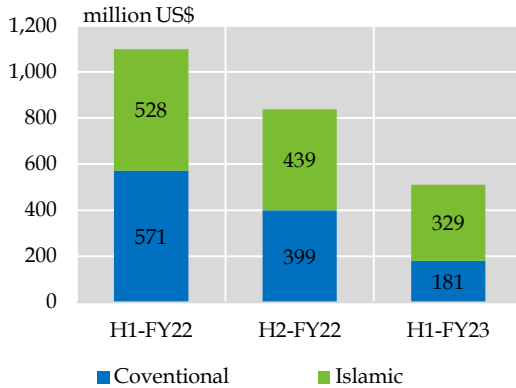
*EDS: External debt Servicing

*FEE: Foreign Exchange Earnings

Source: Ministry of Finance & State Bank of Pakistan

⁵³ The repayment capacity is assessed by two ratios: (1) domestic interest payments-to-FBR taxes and (2) Public external debt servicing (EDS)-to-Foreign Exchange Earnings (FEE).

⁵⁴ The import-related taxes contributed around 42 percent (on net basis) in the total tax revenues in H1-FY23 compared to 52 percent in H1-FY22.

Quarterly Investments in NPCs Figure 4.27

State Bank of Pakistan

bills and other government securities due to lucrative rates and low risk (Figure 4.28a & 4.28b).

The entire increase in domestic debt was concentrated in PIBs and GoP Ijara Sukuks

Most of the expansion in domestic debt in H1-FY23 resulted from PIBs and Shariah compliant bonds. Whereas, National Saving

Schemes (NSS) (net of prize bonds) and T-bills registered net outflows during H1-FY23 (Figure 4.29).

The increase in reliance on long-term instruments resulted from GoP's strategy to enhance public debt profile by shifting towards long-term and Shariah-compliant instruments. However, the large concentration of domestic debt in floating rate instruments has increased the share of floater PIBs and GoP Ijara Sukuks (VRR) from 41.6 percent at the end of June 2022 to 49.5 percent at the end of December 2022. Consequently, the repricing rate risk has increased in rising interest rate environment. While, it is putting pressure on interest payments, it has decreased rollover risk due to lengthening of public debt profile.

Pakistan Investment Bonds (PIBs)

The stock of PIBs grew by 14.8 percent in H1-FY23 to reach Rs 20.3 trillion, compared to the growth of 4.0 percent in H1-FY22 (Table 4.14). This sharp increase in PIBs was

Government Domestic Debt and Liabilities (Jul-Dec)**Table 4.14**

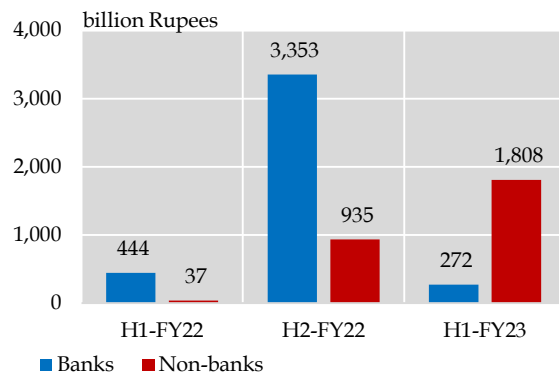
billion Rupees

	Stock		Share in Domestic Debt		Flows		Growth	
	Dec-21	Dec-22	Dec-21	Dec-22	FY22	FY23	FY22	FY23
I. Permanent Debt	17,452.2	23,829.6	65.3	72.0	1,548.1	2,985.9	9.7	14.3
GOP Ijara Sukuk	1,297.8	2,644.6	4.9	8.0	632.5	364.8	95.1	16.0
Bai-Muajjal of Sukuk	128.5	23.2	0.5	0.1	-72.6	-	-36.1	-
PIBs	15,174.9	20,301.2	56.7	61.3	584.9	2,614.2	4.0	14.8
Prize Bonds	372.0	381.6	1.4	1.2	-71.7	7.0	-16.2	1.9
II. Floating Debt	5,643.5	6,156.3	21.1	18.6	-1,036.9	-647.7	-15.5	-9.5
Market Treasury Bills	5,592.2	6,091.1	20.9	18.4	-1,084.8	-661.3	-16.2	-9.8
III. Unfunded Debt	3,604.0	3,073.2	13.5	9.3	-42.0	-262.8	-1.2	-7.9
NSS (Net of Prize Bonds)	3,465.3	2,961.1	13.0	8.9	-32.6	-247.2	-0.9	-7.7
IV. Foreign Currency Instruments	7.5	9.5	0.0	0.0	0.8	0.8	11.3	9.8
V. Naya Pakistan Certificates	39.2	47.5	0.1	0.1	10.9	2.5	38.6	5.6
Government Domestic Debt (I+II+III+IV+V)	26,746.5	33,116.3	100.0	100.0	481.1	2,078.8	1.8	6.7

Source: State Bank of Pakistan

Increase in Domestic Debt Holding by Institution

Figure 4.28a

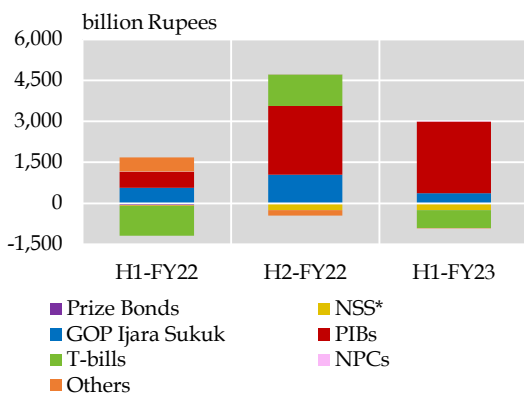


Source: State Bank of Pakistan

majorly due to floating-rate PIBs (PFLs)- around 78.3 percent, as the investors were investing in PFLs due to lucrative returns. However, PFLs has increased the cost of borrowing for the government amidst rising interest rates (Figure 4.30a). Furthermore, the offered amount in the auction profile of fixed PIBs shows that due to high interest rates, the investors were more interested in medium term instrument (Figure 4.30b).

Instrument-wise Net Flows of Domestic Debt

Figure 4.29



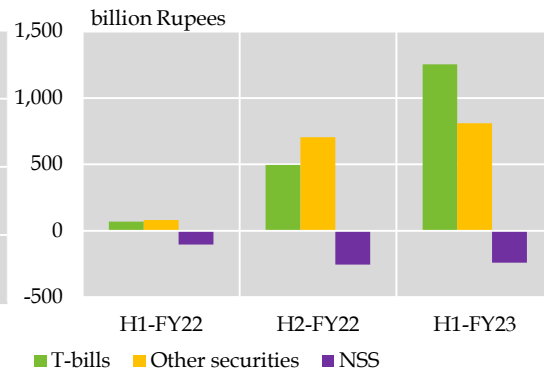
Source: State Bank of Pakistan

⁵⁵ Most of the Sukuks are of five years; only Rs 10 billion Sukuks are of three-year tenors, issued at variable rates.

⁵⁶ Government has discontinued Prize bonds of Rs 7,500; Rs 15,000; Rs 25,000 and Rs 40,000 in FY21.

Non-bank Investments in Domestic Debt (Net Flows)

Figure 4.28b



Source: State Bank of Pakistan

GOP Ijara Sukuk

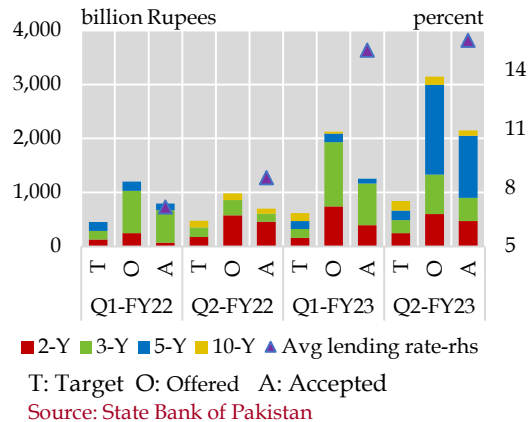
The Government mobilized Rs 364.8 billion worth of Ijara Sukuks (on net basis), mainly variable rental rates (VRR), during H1-FY23 compared to Rs 632.5 billion in H1-FY22 (Figure 4.31a and Table 4.14). Like the conventional debt instruments, the investors remained inclined towards investing in flexible rate Shariah-compliant instruments to benefit from lucrative returns. However, the government accepted less than the targeted amount in H1-FY23 due to higher rates and longer maturity of sukuk (Figure 4.31b).⁵⁵

Prize Bonds

The prize bonds exhibited net inflows in H1-FY23, for the first time after H1-FY19 (Table 4.14). Most of the net inflows came from Rs 1500 denomination bonds followed by Rs 750 and Rs 25000 (premium) denomination bonds. The government discontinued higher denomination bearer bonds⁵⁶ and replaced them with premium bonds of Rs 25000 and

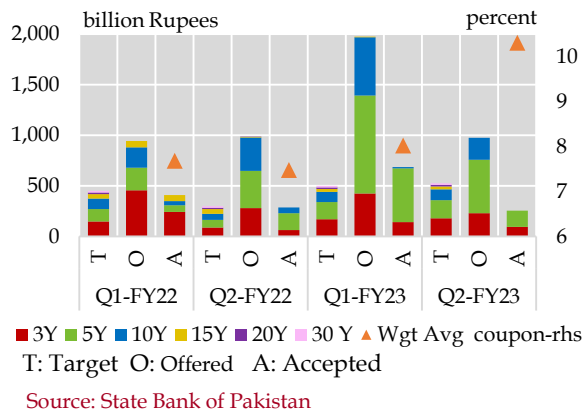
Auction of PFLs

Figure 4.30a



Auction of Fixed PIBs

Figure 4.30b



Rs 40000 to improve documentation of the economy and to further strengthen the Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) regime. Consequently, the investors decided to move towards other bearer bonds.

T-bills

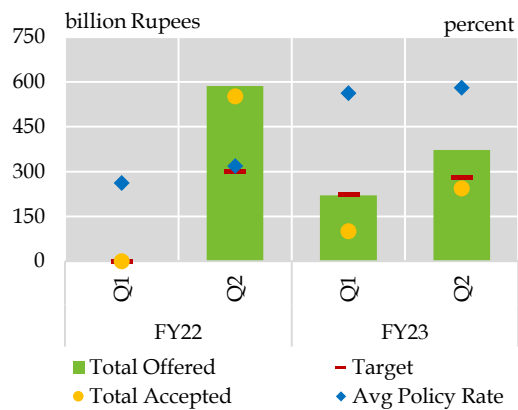
The government retired T-bills worth Rs 661.3 billion (net of maturity) during H1-FY23. Resultantly, the stock of T-bills has reduced to Rs 6.1 trillion. The main reason behind this reduction is the acceptance of less than targeted amount due to high bid rates

(Figure 4.32). Moreover, the investors’ interest in 3-month T-bills amidst increasing interest rate put a pressure on government’s financing which compelled the government to accept less than the targeted amount.

National Saving Schemes (NSS)-net of Prize Bonds

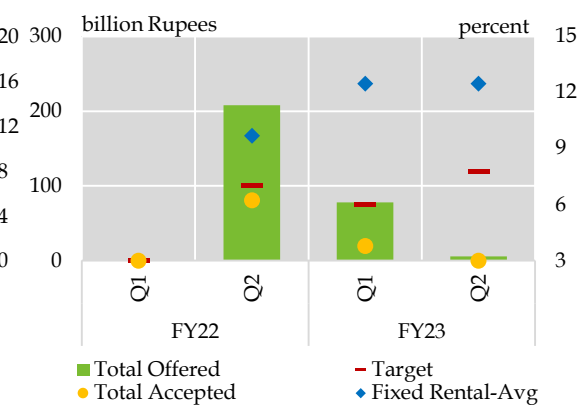
There was a decline in gross receipts in most of the NSS schemes in H1-FY23 compared to H1-FY22 (Figure 4.33). Moreover, there are continuous net outflows in Defense Saving Certificates (DSC) and Special Saving Certificates (SSC) since Q2-FY21 in the

Auction of GoP Ijara Sukuks-VRR **Figure 4.31a**



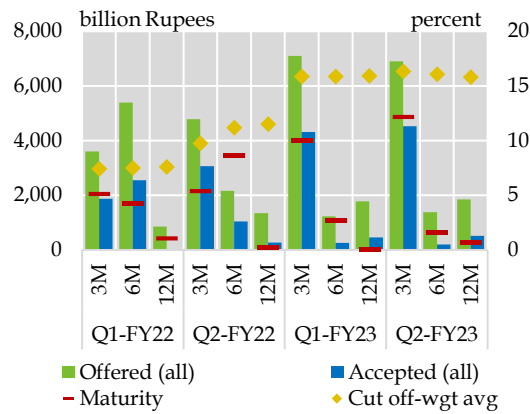
Source: State Bank of Pakistan

Auction of GoP Ijara Sukuks-Fixed **Figure 4.31b**



Source: State Bank of Pakistan

Auction of T-bills: Instrument-wise Figure 4.32



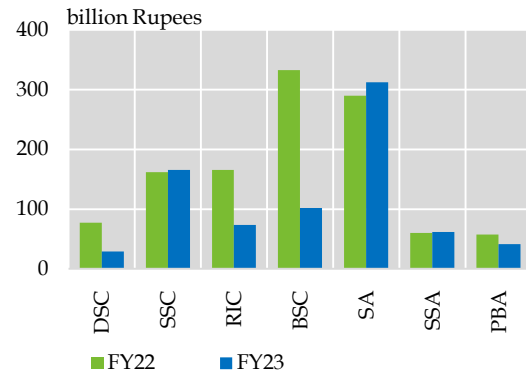
Source: State Bank of Pakistan

backdrop of institutional withdrawal and relatively low returns.⁵⁷ Meanwhile, Pensioners’ Benefit Account (PBA) exhibited continuous inflows during the same period due to pensioner’s interest in these papers as a result of increasing profit rates. However, the Regular Income Certificates (RIC) and Special Saving Accounts (SSA) showed net outflows after H1-FY22 due to non-competitive profit rates compared to government securities. Meanwhile, Behbood Saving Certificates (BSC) exhibited outflows in H1-FY23 as a result of downward revision of profit rates.⁵⁸

There was a significant increase in domestic interest payments in H1-FY23

The interest payments on domestic debt raised to Rs 2.2 trillion in H1-FY23 compared to Rs 1.3 trillion in H1-FY22. The increase in interest rate in H1-FY23 largely emanated from PIBs, T-bills and NSS as a consequence

National Saving Schemes Gross Inflows in H1 Figure 4.33



Source: State Bank of Pakistan

of increase in the policy rate (Figure 4.34a). Resultantly, the cut off rates of T-bills and coupon rates of PIBs increased in H1-FY23 by almost 700-800 bps compared to H1-FY22.

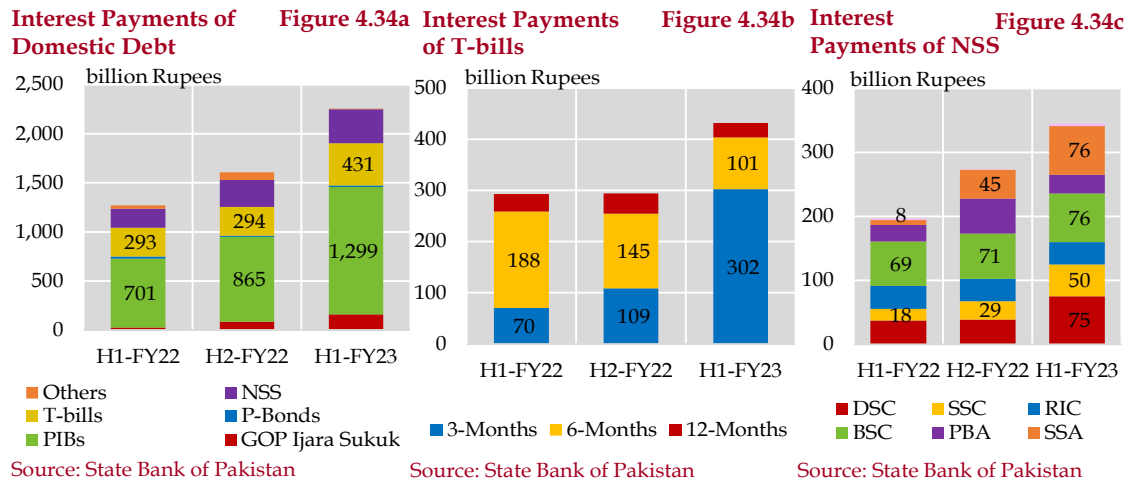
Moreover, on the back of rising share of floating rate PIBs in the outstanding debt stock, the interest payments on these instruments have particularly increased.⁵⁹ In addition, the interest payments on T-bills also intensified due to 3-month paper. The government mobilized most of the amount in T-bills through these papers and on a high interest rate in Q4-FY22 and Q1-FY23 which led to increase in interest payments of 3-month T-bills in H1-FY23 (Figure 4.34b).

The higher interest payments were also witnessed in NSS, specifically in Special Saving Accounts (SSA) and in Special Saving Certificates (SSC) as a consequence of increase in profit rates and profit payments on previous stock (Figure 4.34c).

⁵⁷ On average, the spread between SSC and the government securities (PKRV-monthly average) was around 200bps in H1-FY23 whereas, for DSC and government securities the average spread was around 64bps.

⁵⁸ In October 04, 2022, the profit rate on BSC was revised to 13.92 percent from 14.16 percent.

⁵⁹ Quarterly and semi-annual interest payments of floater PIBs are linked to the cutoff rates of 3-month and 6-month T-bills.



Public External Debt & Liabilities

The outstanding stock of public external debt reduced by around US\$ 2.2 billion in H1-FY23 compared to an addition of around US\$ 4.1 billion in H1-FY22 (Table 4.15). The main

drivers behind this reduction were: first, higher principal repayments; second, limited external financing amidst delays in the completion of IMF's ninth review and third, tight financial market conditions.

Public External Debt in Jul- Dec million US\$

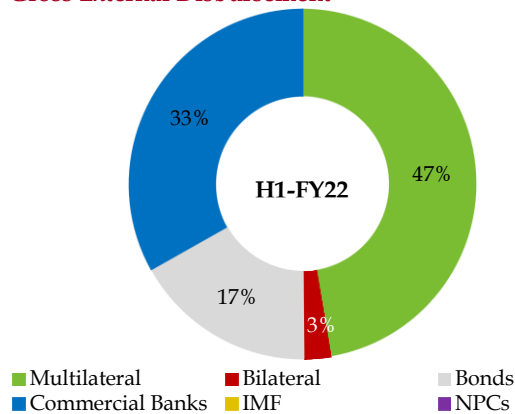
Table 4.15

	Stock		Share in Public External Debt (percent)		Change in Stock during H1		Growth in H1 (percent)	
	Dec-21	Dec-22	Dec-21	Dec-22	FY22	FY23	FY22	FY23
Public external debt (1+2)	90,556	86,565			4,099	-2,273	5	-3
1. Government external debt	83,824	78,949	93	91	4,751	-2,992	6	-4
of which								
i) Long term (>1 year)	82,547	78,261	91	90	4,332	-2,331	6	-3
Paris club	10,146	8,459	11	10	-580	-773	-5	-8
Multilateral	34,634	36,376	38	42	798	2,353	2	7
Other bilateral	17,929	18,035	20	21	3,107	-18	21	-0
Euro Sukuk global bonds	7,800	7,800	9	9	-	-1,000	-	-11
Commercial loans/credits	10,218	6,894	11	8	522	-2,587	5	-27
Naya Pakistan Certificates	1,338	658	1	1	529	-295	65	-31
ii) Short term (<1 year)	1,277	688	1	1	419	-661	49	-49
of which								
Multilateral	1,067	687	1	1	561	-640	111	-48
Local Currency Securities	210	-	0	-	-142	-22	-40	-99
2. From IMF	6,732	7,616	7	9	-651	719	-9	10
Foreign exch. liabilities	11,642	10,979	-	-	2,879	-155	33	-1
Central Bank deposits	2,700	2,700	-	-	-	-	-	-
Allocation of SDR	4,149	3,906	-	-	2,739	9	194	-

Source: State Bank of Pakistan

Gross External Disbursement

Figure 4.35a



Source: Ministry of Economic Affairs, EAD

Naya Pakistan Certificates(NPCs) (held by non-residents) recorded net outflows

In the backdrop of global increase in interest rates and hike in the country risk, NPCs (held by non-residents) exhibited a net outflow of around US\$ 295 million in H1-FY23, despite upward revision of rate of returns in November 2022. Moreover, Moody and Fitch’s rating downgrades may have undermined the investors’ trust in Pakistani bonds.

There were limited Gross External Disbursements against Budget Estimates in H1-FY23

Pakistan received around US\$ 5.5 billion in H1-FY23 as Gross external disbursements (including public grants & loans) against budget estimates of US\$ 22.8 billion for FY23. Whereas, in H1-FY22, US\$ 6.1 billion (excluding time deposits) were disbursed against a budget estimate of US\$ 14.0 billion in FY22.⁶⁰ The disaggregated analysis shows that multilateral sources were the main source of financing in first halves of both FY22 and FY23. After multilateral

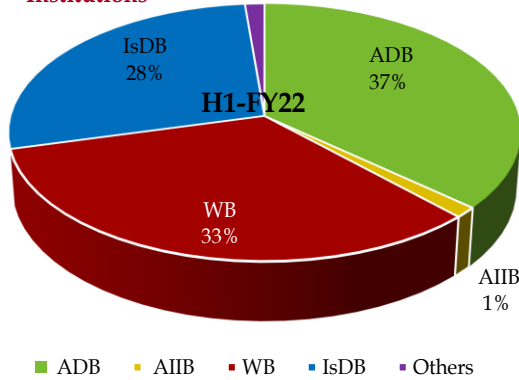
organizations, most of the financing in H1-FY22 came from commercial banks and Euro bonds. Whereas, in H1-FY23, multilateral was followed by IMF and friendly countries (Figure 4.35a). However, no amount was raised through Eurobonds in H1-FY23 despite having budget estimates of US\$ 2.0 billion for FY23 and only US\$ 200 million were received from commercial banks against commitments of US\$ 7.4 billion due to macroeconomic uncertainty.

Moreover, within Multilateral category, around 57 percent of the financing came from Asian Development Bank (ADB), followed by Asian Infrastructure Investment Bank (AIIB) and World Bank group(WB) in H1-FY23. Whereas, in H1-FY22, most of the external financing was from ADB, WB and Islamic Development bank (IsDB/IDB) (Figure 4.35b).

Meanwhile, in bilateral category, Saudi Arabia was the main financier in H1-FY23, followed by China and the USA. Whereas, in H1-FY22, most of the financing came from

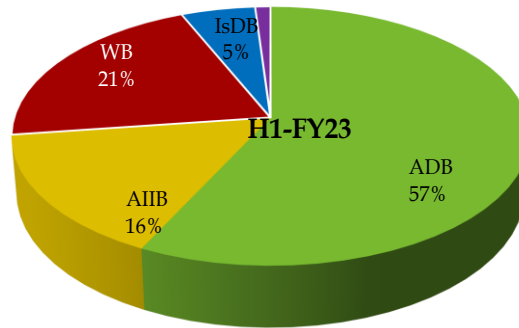
⁶⁰ Source: Ministry of Economic Affairs, Economic Affairs Division

Gross External Disbursements - Multilateral Institutions



Source: Economic Affairs Division

Figure 4.35b



the latter two countries (China and the USA) (Figure 4.35c).

A bulk of foreign inflows were utilized for program/budgetary support

The analysis shows that most of the external financing was utilized for program/budgetary support in H1-FY23, followed by project aid and short-term credit for the import of oil and LNG (Table 4.16).

External Debt Servicing recorded a significant increase in H1-FY23

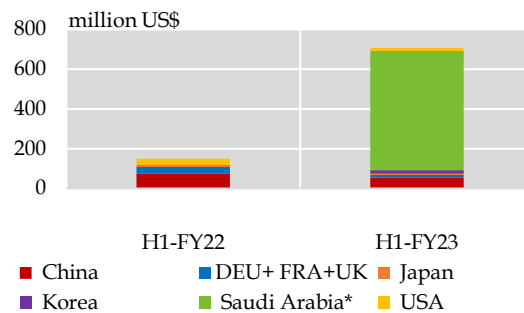
Pakistan repaid US\$ 8.9 billion public external debt in the first half FY23 compared to US\$ 5.0 billion in the same period last year (Table 4.17).⁶¹ Moreover, US\$ 111 million was paid against Foreign Exchange Liabilities in H1-FY23 compared to US\$ 173 million in H1-FY22.

The disaggregated analysis shows that both principal repayments and interest payments contributed in the soaring debt servicing in H1-FY23. However, the major increase was in principal repayments which posted a

growth of around 78.8 percent while the interest payments grew by around 65.8 percent in H1-FY23 compared to the same period last year.

Further analysis depicts that a bulk of debt servicing was of Commercial Banks, followed by Euro Bonds and Multilateral organizations. The reason for higher debt servicing in H1-FY23 was first, scheduled

Gross External Disbursement - Bilateral Figure 4.35c



* does not include time deposit of US\$ 3.0 billion in H1-FY22

Source: Economic Affairs Division

⁶¹ Sovereign debt includes both principal and interest payments.

Gross External Disbursement and Utilization of Major Donors in H1**Table 4.16**

million US\$

	Project		Program/Budgetary Support		Others		Total	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
ADB	753	282	310	1,624	-	-	1,063	1,906
AIIB	38	21	-	500	-	-	38	521
IsDB	4	16	-	-	800*	161*	805	177
IMF	-	-	-	1,166	-	-	-	1,166
WB	513	380	425	293	24^	16^	962	690
China	366	55	-	-	-	-	366	55
Saudi Arabia	1	-	-	-	3,000**	600*	3,001	600
USA	33	14	-	-	-	-	33	14

*Short-term credit; ^TDPs

** Time deposits; not included in public external debt as they are part of external liabilities.

Source: Economic Affairs Division

principal repayments;⁶² second, increase in LIBOR rates amidst global monetary tightening. For instance, the LIBOR rate for 12M USD increased from 3.5 percent to 5.4 percent during H1-FY23. As most of external loans were contracted on LIBOR rate⁶³, the uptick in LIBOR has led to increase in interest payments. Third, expiry of DSSI in December 2021 which helped in deflating

debt servicing in H1-FY22. In the absence of this relief the external debt servicing increased in H1-FY23.

External Debt Sustainability deteriorated in the first half of FY23⁶⁴

Most of the debt sustainability indicators deteriorated in H1-FY23 amidst higher debt

Public External Debt (Jul-Dec)**Table 4.17**

million US\$

	Total		Principal		Interest	
	FY22	FY23	FY22	FY23	FY22	FY23
1. Public external debt (a+b+c)	5,055	8,927	4,202	7,512	853	1,415
a. Government debt	4,189	7,485	3,420	6,232	769	1,253
Paris Club	6	621	5	521	1	101
Multilateral	1,059	1,096	843	820	216	276
Other Bilateral	71	818	23	558	47	260
Euro/Sukuk global bonds	1,307	1,319	1,000	1,000	307	319
Commercial loans /credits	1,732	2,960	1,549	2,722	183	238
NPCs	-	645	-	610	-	35
b. IMF	585	617	516	480	69	137
c. Short-term government debt	281	825	266	801	15	24
2. Foreign exchange liabilities	173	111	-	-	173	111

Source: State Bank of Pakistan

⁶² According to Annual Debt Review FY2021-22 of Ministry of Finance, around US\$ 14.0 billion Public External Debt is maturing in FY23.

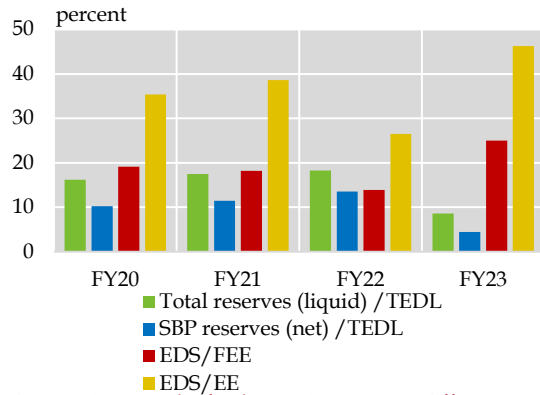
⁶³ Source: Ministry of Economic Affairs, Economic Affairs division.

⁶⁴ See SBP's Annual Report on State of Pakistan Economy 2021-22 for explanation of External Debt Sustainability

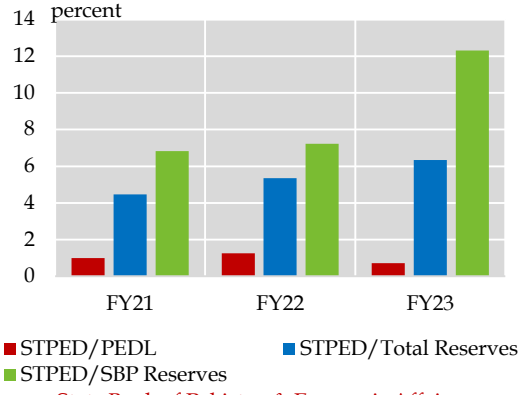
Solvency Indicators in H1

Figure 4.36a Liquidity Indicators in H1

Figure 4.36b



Source: State Bank of Pakistan & Economic Affairs Division



Source: State Bank of Pakistan & Economic Affairs Division

servicing and lower external inflows, particularly export earnings (EE) and remittances. The slowdown in global demand amidst inflation and floods in the country has led to reduction in export receipts. Moreover, higher kerb premium may have diverted a part of the external inflows such as remittances to informal channels. Furthermore, delays in disbursement of IMF’s tranche has impeded financing from bilateral and multilateral creditors.

Consequently, there was deterioration in Total Reserves- to- Total External Debt and Liabilities (TEDL) and SBP reserves- to- TEDL ratios (**Figure 4.36a**). Moreover, the decline in export receipts and remittances exacerbated External Debt Servicing (EDS) -

to- Export Earning (EE) and EDS- to- Foreign Exchange Earning (FEE) ratios in H1-FY23. It is important to note that H1-FY22 showed better solvency indicators as a result of: (1) decrease in EDS due to restructuring of debt under DSSI, and (2) uptick in both exports and remittances.

The factors that underpinned weakened liquidity indicators were reduction in foreign reserves and increase in debt servicing (**Figure 4.36b**). Meanwhile, the slight improvement in Short Term Public External Debt (STPED) -to-Public External Debt and Liabilities (PEDL) resulted from retirement of short-term commercial loans and inflows from multilateral organizations and IMF (long-term)

5 External Sector

Despite a significant improvement in the current account balance in H1-FY23, Pakistan's external account remained under stress during the period, mainly owing to scheduled repayments of loans and lower financial inflows. The decline in CAD was largely due to a fall in imports, resulting from demand management policies taken by the SBP and the government. Global economic slowdown due to the Russia-Ukraine conflict, tight monetary policy amid persistently high inflationary pressures, and a slowing Chinese economy brought about negative externalities in Pakistan's external sector through fall in exports and workers' remittances. Domestic political uncertainty and delay in concluding IMF's review also exacerbated the situation, leading to a drawdown in foreign exchange reserves and persistent pressures on country's exchange rate.

5.1 Pakistan's Balance of Payments

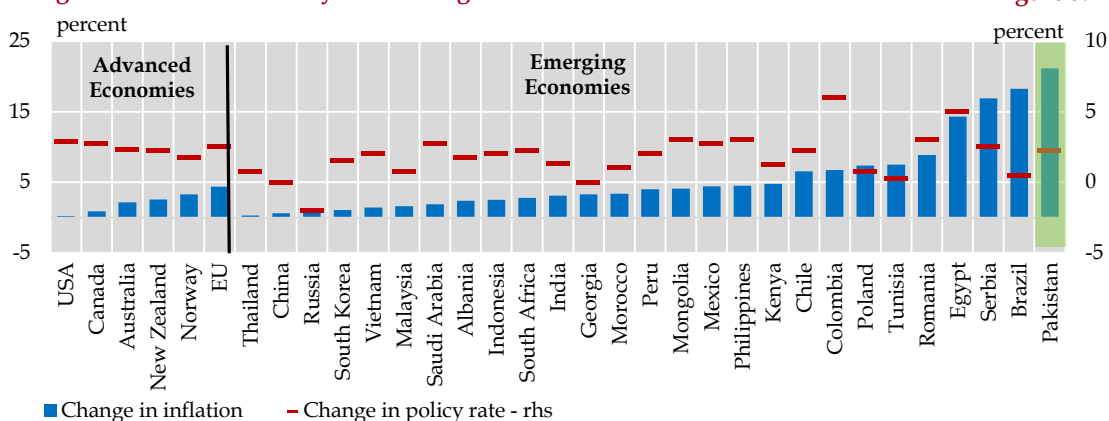
Pakistan's overall external account remained under pressure, despite a significant improvement in the current account deficit in H1-FY23. Central to this distress was the lack of adequate financial inflows owing to both global and domestic factors.

The demand side pressures, supply-chain disruptions arising from the Russia-Ukraine conflict and China's zero-Covid policy resulted in sizable inflationary pressures across advanced and emerging economies in 2022. The rising inflationary outlook prompted central banks around the world to tighten monetary policies (Figure 5.1). The global monetary policy tightening added to financial distress, leading to capital flight, as reflected in the fall in emerging markets' capital flow indices during H1-FY23 as compared to last year (Figure 5.2).

Domestically, insufficient official inflows amid delay in the resumption of IMF program put a major drag on the external account during the review period. Together with this, uncertainty stemming from political noise affected overall financial inflows, especially resulting in muted private capital inflows. Floods in the earlier months of the year undermined the rice exports and deteriorated the commodity import outlook due to damages to cotton production.

Nonetheless, Pakistan's current account recorded a significantly lower deficit of US\$ 3.6 billion during H1-FY23, mainly on the back of a substantial reduction in imports. Although exports growth reduced as well, the overall impact of the imports' reduction dominated. The decline in imports was mainly in the backdrop of policy and administrative measures taken to rein in

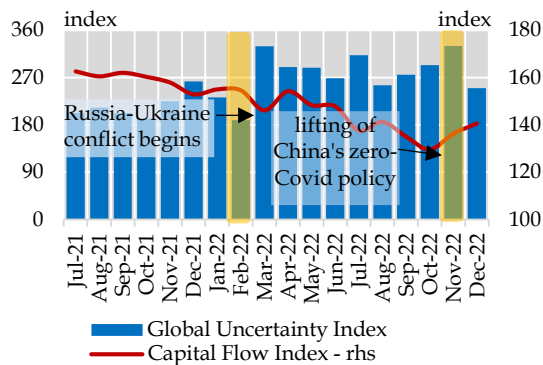
Change in Inflation and Policy Rate during H1-FY23



Source: International Monetary Fund

Global Uncertainty and EM Capital Flow Indices

Figure 5.2



Sources: Economic Policy Uncertainty Index & Bloomberg

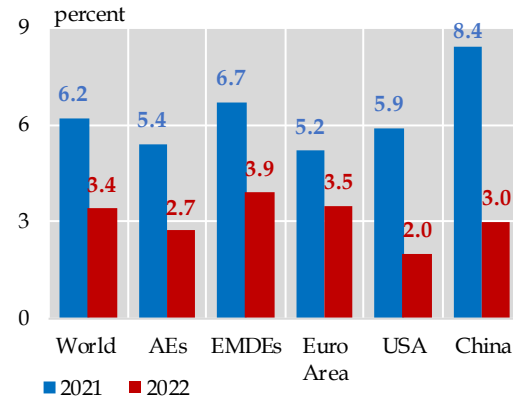
demand during FY22 and FY23. Meanwhile, the decline in exports mostly stemmed from textile and food products amid damages caused by floods and slowdown in the demand in the traditional markets, as reflected in decelerating global GDP growth rates (Figure 5.3).

Services account deficit also fell during H1-FY23 due to a decline in freight payments on the back of lower imports of goods. Interest payments on external loans increased, thus raising the primary income account deficit. Workers' remittances during the review period also recorded a decline from all major corridors including both advanced economies and GCC countries – with the marginal exception of USA. A number of factors came to play that reduced the inflow of remittances including lower demand in major remittance sending countries (UK and EU), inflationary pressures (in case of UK, EU and Saudi Arabia) and easing of travel restrictions.

The adverse global and domestic environment took its toll on the financial inflows, as there were net outflows during the review period. Despite foreign exchange

Real GDP Growth

Figure 5.3



Source: International Monetary Fund

loan disbursements higher than last year, the financial account posited a net outflow due to sizable amortizations along with disinvestments. Thus, financial outflows resulted in the worsening of the country's foreign exchange reserves and depreciation in PKR during H1-FY23. (Table 5.1).

5.2 Current Account

The current account recorded a significantly lower deficit of US\$ 3.6 billion during H1-FY23, against a deficit of US\$ 9.1 billion in the same period last year (Figure 5.4). The predominant factor behind this improvement was the 26.6 percent decrease in the merchandise trade deficit led by a substantial fall in import payments mainly due to policy and administrative actions to arrest demand pressures. The import decline of 18.2 percent was large enough to have contained the CAD despite lower export receipts and workers' remittances. Slowing global demand and high domestic input prices was mainly behind the 6.7 percent drop in export receipts; floods in the H1-FY23 also contributed in this under performance in the food exports. The services deficit also plunged from last year's levels by 85.1

Pakistan's Balance of Payments

Table 5.1

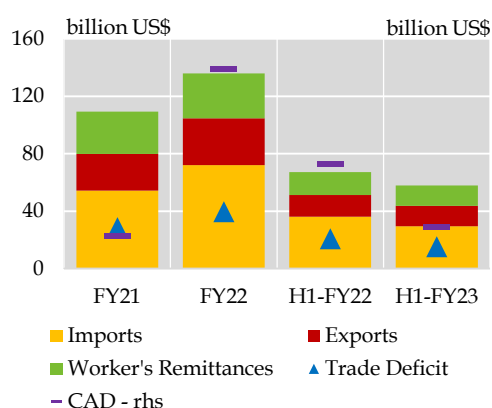
million US\$

	H1-FY22	FY23			YoY Change in H1-FY23	
		Q1	Q2	H1	Absolute	Percent
Current account balance	-9,091	-2,446	-1,111	-3,557	5,534	-60.9
Balance on trade in goods	-20,853	-8,989	-6,317	-15,306	5,547	-26.6
Exports of goods	15,242	7,391	6,831	14,222	-1,020	-6.7
Imports of goods	36,095	16,380	13,148	29,528	-6,567	-18.2
energy imports	8,571	6,079	3,987	10,066	1,495	17.4
non-energy imports	27,524	10,301	9,161	19,462	-8,062	-29.3
Services account balance	-2,139	-281	-38	-319	1,820	-85.1
Primary income balance	-2,554	-1,028	-1,576	-2,604	-50	2.0
Interest Payments	1,399	2,224	949	3,173	1,774	126.8
Secondary income balance	16,455	7,852	6,820	14,672	-1,783	-10.8
Workers' remittances	15,808	7,686	6,426	14,112	-1,696	-10.7
Financial account (net)*	-10,105	-217	1,418	1,201	11,306	-111.9
Direct investment (net)*	-1,070	-205	873	668	1,738	-162.4
Portfolio investment (net)*	374	30	1,001	1,031	657	175.7
Build-up in FX assets abroad	415	36	-1,391	-1,355	-1,770	-426.5
FX Loans & liabilities	9,823	77	-937	-860	-10,683	-108.8
Banks	573	-25	-107	-132	-705	-123
General Government	5,868	245	-519	-274	-6,142	-104.7
Disbursements	4,971	2,206	3,151	5,357	386	7.8
Amortization	2,676	1,861	3,560	5,421	2,745	102.6
SDR Allocation	2,773	0	0	0	-2,773	
Other Sector	606	-146	-311	-457	-1,063	-175.4
Disbursements	936	81	173	254	-682	-72.9
Amortization	532	315	500	815	283	53.2
SBP's Liquid FX Reserves	17,686	7,860	5,586	5,586	-12,100	-68.4
PKR dep (-) / app (+) - YoY in percent	-3.5	-26.6	-21.8	-24.1	-	-

*as per BPM6, negative sign means net FX inflow into Pakistan and vice versa.

Source: State Bank of Pakistan

Current Account Balance Overview Figure 5.4



Source: State Bank of Pakistan

percent mainly on account of lower outflows of freight and insurance services as both are linked to imports of goods. Contrary to the upward trajectory over the last few years, workers' remittances registered a decrease of 10.7 percent as inflows from nearly all the major corridors showed a decline mainly because of rising living cost on the back of high inflation and lower demand. The primary income deficit increased by 2.0 percent during the period mainly on the account of higher interest payments on government external debt.

Breakdown of Services Trade Account in H1**Table 5.2**

million US\$

	Import (M)		Export (X)		Balance (X-M)	
	FY23	YoY Change	FY23	YoY Change	FY23	YoY Change
a) Transport	2,181.1	-702.0	429.9	54.1	-1,751.2	756.0
Sea freight	1,563.9	-623.4	79.0	47.5	-1,484.8	671.0
Air passengers	434.3	103.1	216.0	14.7	-218.3	-88.4
Air freight	30.9	-93.1	16.6	1.9	-14.4	94.9
b) Travel	556.1	-19.9	255.2	-26.8	-300.9	-7.0
Education exp.	162.1	38.0	5.2	-1.1	-156.9	-39.2
Other (personal)	387.8	-55.2	247.3	-25.7	-140.6	29.4
c) ICT Services	167.1	-162.9	1,333.2	31.3	1,166.1	194.2
Software consultancy services	82.5	-28.6	391.7	23.4	309.2	51.9
Other Computer services	21.6	-20.0	366.8	-24.6	345.3	-4.6
Export of Computer software	39.0	-100.5	302.4	30.7	263.3	131.1
Call centers	0.0	-0.1	107.0	5.3	107.0	5.4
Subtotal (a+b+c)	2,904.3	-884.7	2,018.3	58.6	-886.0	943.3
Total services	3,884.4	-1,686.9	3,527.0	95.2	-357.5	1,782.1

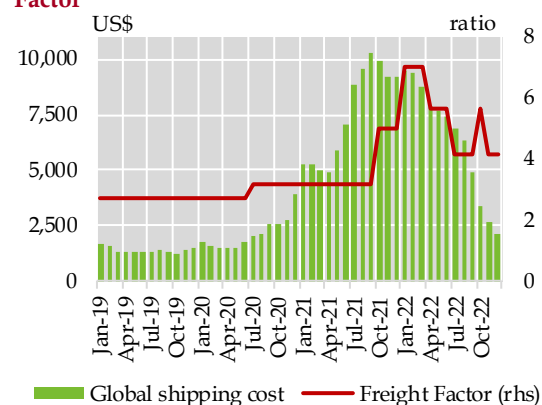
Source: State Bank of Pakistan

Services Account

The services trade deficit contracted by 85.1 percent to US\$ 319 million in H1-FY23 from US\$ 2,139 million last year. The fall in the deficit was due to a sharp decline in services imports (Table 5.2).

Disaggregated data shows that the contraction was attributed mainly to the fall in the transport sector followed by travel services. Within transports, sea freight remained the major contributor to the decline on the back of lower merchandized imports during the period. Moreover, the global shipping cost dropped significantly in H1-FY23 compared to last year. Moderating global oil prices and normalization of post-Covid logistics demand, which helped decrease the freight costs (Figure 5.5).¹

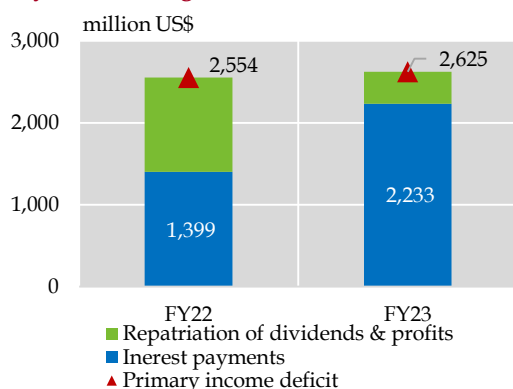
Personal travels including religious and recreational travel also posted a visible decline in H1-FY23, this could be traced to a large base impact last year owing to high pent-up demand for international travel,

Global Shipping Cost and Freight Factor Figure 5.5

Source: Bloomberg and State Bank of Pakistan

¹ CIF margin also dropped in Q2-FY23 to 4.14 percent from 5.03 percent last year. SBP estimates freight payments by applying a uniform factor to import payments based on survey from logistics and freight companies.

Primary Income Deficit and Interest Payments during H1 **Figure 5.6**



Source: State Bank of Pakistan

when the travel restrictions amid Covid were eased out.

On the other hand, exports of information and communication technology (ICT) growth recorded a slight improvement of 2.4 percent YoY in H1-FY23 compared to last year. This growth in ICT exports was due to the higher usage of tech-driven services amid the lockdown related restrictions across the globe.² Within ICT services exports, a slight improvement in computer and call center services was seen during the period.

Primary Income Account

The primary income deficit rose by 2.0 percent to US\$ 2.6 billion in H1-FY23. Higher interest payments on government external debt primarily contributed in widening of the deficit, however, profit and dividend repatriation by foreign companies declined during the period (Figure 5.6). In line with the elevated external borrowing in the past few years, the interest payments rose considerably from US\$ 1.4 billion in H1-FY22 to US\$ 3.2 billion during the review period.

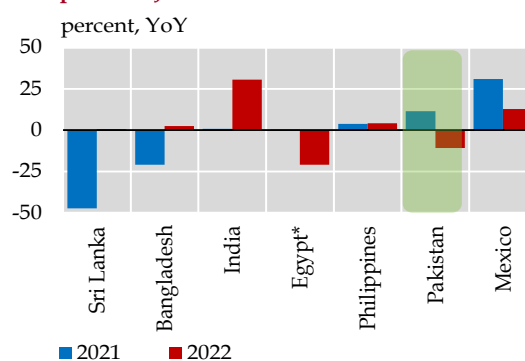
Meanwhile, the increasing global interest rate environment also contributed to the rise in Pakistan's debt servicing.

On the contrary, the profit repatriation by foreign companies posted a decline of US\$ 673.9 million during H1-FY23 compared to the corresponding period last year. Particularly, this trend can be explained by: (i) a slowdown in economic activity resulting in lower profitability of corporates; and (ii) substantial PKR depreciation.

Workers' Remittances

Remittances showed a mixed trend across the major recipient economies. For instance, remittances fell in Egypt and Pakistan; decelerated in Mexico; and slightly increased in Bangladesh, Sri Lanka and the Philippines (Figure 5.7). In case of India, remittances showed robust growth on account of short-term and long term trends such as post-Covid resumption of work; and Indian migrants' gradual shift from mostly blue collar employment in the GCC countries to largely high-skilled white collar employment

Growth in Remittances to Major Recipients in Jul-Dec **Figure 5.7**



*2022 growth for Jul-Sep latest available data

Source: Haver Analytics and State Bank of Pakistan

² See Special Section on, 'Pakistan's Growing IT Exports and Tech Start-ups: An Opportunity to Leapfrog?' in this report.

Workers' Remittances**Table 5.3**

million US\$

	Q1-FY22	Q2-FY22	Q1-FY23	Q2-FY23	H1-FY22	H1-FY23	Growth (%)
US	762.5	731.2	813.1	726.2	1,493.7	1,539.3	3.1
UK	1,137.3	1,009.6	1,085.1	898.7	2,146.9	1,983.8	-7.6
Germany	132.7	127.5	123.2	119	260.2	242.2	-6.9
France	131.1	126.5	112.9	103.6	257.6	216.5	-15.9
Italy	230.4	216.8	226.8	191.6	447.3	418.4	-6.5
Australia	189.7	200.6	170.8	142	390.3	312.8	-19.9
Canada	170.4	169	160.7	128.4	339.4	289.1	-14.8
GCC	4,610.7	4,238.3	4,232	3,491.2	8,849.0	7,723.2	-12.7
<i>Saudi Arabia</i>	2,095.4	1,938.7	1,885.6	1,598.9	4,034.0	3,484.4	-13.6
<i>UAE</i>	1,601.1	1,407.3	1,468.4	1,136.1	3,008.4	2,604.5	-13.4
<i>Other GCC</i>	914.3	892.3	878	756.3	1806.6	1634.3	-9.5
Other countries	833.6	789.2	762.1	625.3	1,622.80	1,387.4	-14.5
Total remittances	8,198.6	7,608.6	7,686.6	6,426.0	15,807.2	14,112.6	-10.7

Source: State Bank of Pakistan

in advanced economies such as the United States, the United Kingdom, Singapore, Japan, Australia, and New Zealand.³

In contrast, Pakistan received lower remittances amounting to US\$ 14.1 billion in H1-FY23 compared to US\$ 15.8 billion in the corresponding period last year. Quarterly data shows that QoQ decline of 16 percent in Q2-FY23 is the highest in the last 22 years. The reduction in remittances is broad based as evident from the decline from major sources, including Saudi Arabia, the UAE and the UK.

Inflows from all the major corridors including advanced economies and GCC showed a decline in the first two quarters of FY23 on YoY basis except a nominal growth in remittances received from USA during first half of FY23 (Table 5.3).

Along with various global and domestic developments affecting remittance flows, Pakistan also remained vulnerable to the changing labor dynamics and exchange rate movements (details in the Box 5.1).

Box 5.1: The Declining Workers' Remittances

Remittance flows remained on a declining trajectory throughout H1-FY23 with a more pronounced decrease in Q2-FY23. It is also noteworthy that, for Pakistan, remittances have recently been almost at par with exports in terms of generating FX inflows and containing current account deficit. Where the recent decline in remittance flows is a serious concern, it has also led to conjectures regarding its causes. A host of recent domestic and global developments may have affected the flow of remittances to Pakistan in H1-FY23.

Based on the average annual workers' remittances received during last three years (i.e. FY20 – FY22),

³ Source: Migration and Development Brief 37, October 2022, World Bank

Saudi Arabia (KSA), UAE, UK and USA are the top four host countries respectively, and contributed 69.5 percent of total remittances.

Rising Inflation, Monetary Tightening and Slowdown in the High-Income Host Countries

While overall global commodity prices have started moderating during H1-FY23, energy and food prices still remained vulnerable to shocks such as supply disruptions in the wake of Russia-Ukraine war. Consequently, inflation in UK and EU reached multi-year high levels in 2022, which in turn, led to lower real wages of workers and curtailed their ability to remit to home (**Figure 5.1.1**).

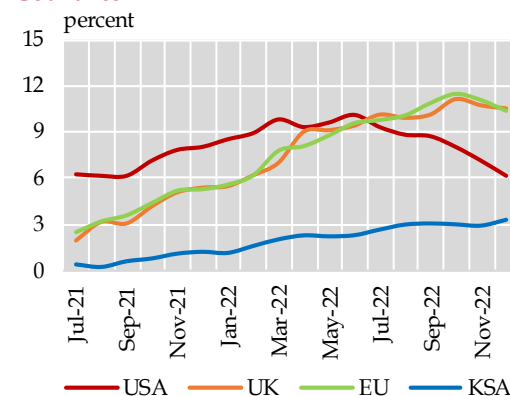
Monetary contraction in response to higher inflation led to slowdown in these economies. Further, impact of fiscal stimulus provided during the pandemic to support economic activity in the host countries began to wane as well.⁴ Hence, slowdown in these host countries could be another factor affecting employment opportunities and income levels of the Pakistani diaspora limiting their capacity to remit to home.

Changing Labour Market Dynamics in GCC Countries

Historically, flows from Saudi Arabia and UAE have been steering the overall remittances for Pakistan. Any change in the economic indicators of these countries can have a direct impact on remittance flows to Pakistan. Annual inflation in Saudi Arabia increased to its 18 months high level of 3.3 percent in December 2022 mainly on the back of rising prices of housing, food and transport.⁵ In addition to higher inflation, the effects of global slowdown have also seeped into GCC economies through lower oil demand and moderating crude oil prices. As a result, higher cost of living and lower employment opportunities have added constraints on the ability of Pakistani workers in GCC to remit funds to home.

In other developments, Saudi Arabia continued implementation of its Saudi Nationalization Scheme (also known as 'Saudization' or 'Nitaqat'). Nitaqat is a policy that was announced with an intention to increase the percentage of Saudi nationals employed in the private sector and reduce the dependence on expatriate labor. During 2022, various decisions have been issued under this policy focusing on newer professions and sectors to attract Saudi nationals.⁶ As this scheme is more focused towards white collar employment, increased tendency to prefer Saudi workers over expatriate workers reduces employment opportunities for non-Saudi white collar workers. This could, in turn, lead some of the white collar workers of other nationalities to temporarily compete for even relatively less skilled workers including blue-collar workers of Pakistani origin.

YoY Inflation in Major Host Countries **Figure 5.1.1**



Source: Haver Analytics

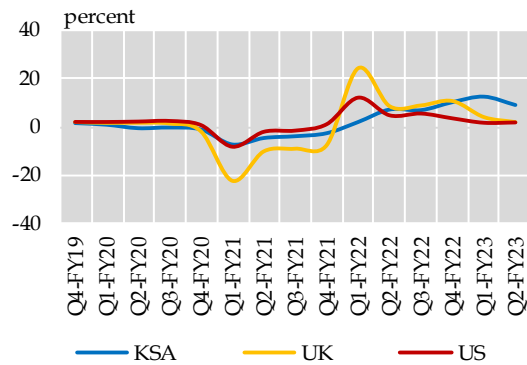
⁴ Source: Migration and Development Brief 37, October 2022, World Bank

⁵ Source: Trading Economics

⁶ Source: www.zawya.com/en/economy/gcc/20-000-new-jobs-for-citizens-as-mhrsd-starts-implementing-saudization-of-four-key-professions-rhev7bns, retrieved on 25-February-2023

GDP Growth of Top Host Countries

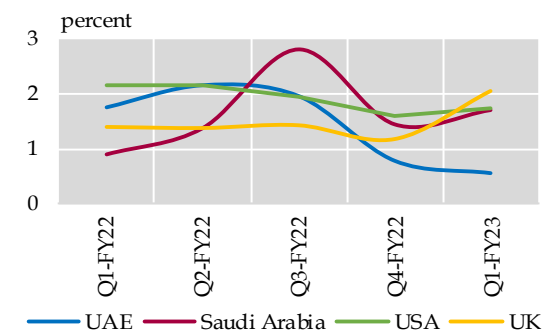
Figure 5.1.2



Source: Haver Analytics

Exchange Rate Margin for Remitting to Pakistan from Major GCC Corridors*

Figure 5.1.3



*percent of transaction amount of US\$ 200

Source: World Bank Remittance Prices

Moreover, current property boom in UAE (particularly in Dubai) might also have been an incentive for Pakistani diaspora to retain their savings in UAE in the shape of investments in real estate instead of remitting to Pakistan amid uncertain economic conditions.⁷

Informal Channels

The resumption of cross-border air travel may have led to shifting of some remittance inflows to informal channels as blue-collar workers (particularly from KSA and UAE) mostly depend on the personal networking to send remittances back home. Further, GoP's withdrawal of the incentive to banks (that is 20 Riyal rebate as a remittances fee on the remittances originating from KSA) may also have diverted some inflows to informal channels.⁸

In order to contain the soaring external account pressures, administrative and regulatory measures were taken to limit imports. It, in turn, also provided respite to PKR against USD and monthly average exchange rate, that had reached the peak of 231 in September 2022, moderated to the level of 225 in December 2022.

However, speculations in the open market caused the kerb market premium to increase substantially during Q2-FY23, which incentivized the informal money transfer channels to resurface and attract expatriate workers with higher exchange rate. Hence, official remittance flows to Pakistan are further decreased.

The data on remittance prices by World Bank also shows a slight increase in exchange rate margins charged by money transfer operators (MTOs) and exchange companies in Saudi Arabia and UK disincentivizing workers to use formal channels for remitting to Pakistan (**Figure 5.1.3**).⁹

⁷ Average residential prices in Dubai and Abu Dhabi increased in 2022 by 9.5% and 1.5% respectively. Overall 90,881 transactions were reported in Dubai's residential market during 2022 breaking the record of 81,182 transactions in 2009. UAE Real Estate Market Review Q4 2022 - CBRE. Source: www.cbre.ae

⁸ For details, see SBP Annual Report on State of Pakistan's Economy FY22.

⁹ Source: Remittance Prices Worldwide, World Bank

5.3 Financial Account

The net official external financial outflows amounted to US\$ 1.2 billion in Jul-Dec FY23, against an inflow of US\$ 10.1 billion last year (Figure 5.8). Within the financial flows, Pakistan's net outflow of FX loans and liabilities amounted to US\$ 860 million in Jul-Dec FY23, in contrast to net inflows of US\$ 9.8 billion in Jul-Dec FY22. In the month of August, the government received US\$ 1.2 billion tranche from the IMF, following the successful 7th and 8th combined reviews by the Fund. The ADB disbursed loans of US \$ 1.6 billion for flood relief projects. Due to the downgrading of Pakistan's credit rating by Fitch and Moody's (Oct-22), and S&P (Dec-22), the repayment of a *Sukuk* bond, the rising CDS rates of the country, and the downgrading to a frontier market economy by MSCI, net FPI outflows in Pakistan amounted to US\$ 1.0 billion in Jul-Dec FY23. Net FDI decreased by 44.1 percent in Jul-Dec FY23, largely on the back of a drop in inflows

from countries including China and the US, along with the settlement of a mining case.

Foreign Direct Investment

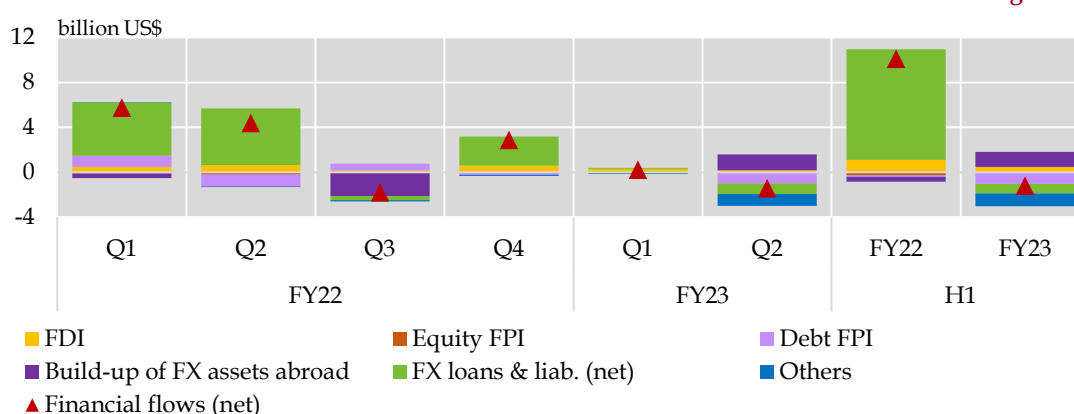
Global trends

CY22 was a challenging year for investments, especially for cross-border FDI; a host of events including the Russia-Ukraine conflict, spiking inflationary pressures, a zero-Covid policy in China and rising debt pressures affected global FDI flows.

Cross-border mergers and acquisitions faced declines after record-highs in CY21, pointing to the prevailing uncertainty and tighter financial conditions (Figure 5.9). The fall in cross-border FDI was particularly sharp in H1-FY23 (Figure 5.10). Following monetary tightening by the US, the UK and the EU, the number of cross-border deals dropped globally.¹⁰ The venture capital industry (which expanded in CY21 and at the beginning of CY22) reversed course with the

Financial Account Breakdown

Figure 5.8

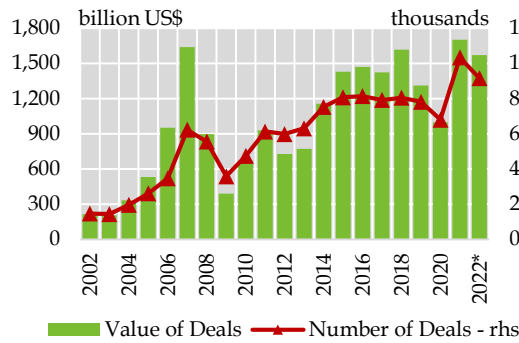


Source: State Bank of Pakistan

¹⁰ The number of deals fell by 21.3 percent in North America, 14.4 percent in Oceania, 12.1 percent in Asia and 8.6 percent in Europe YoY. Source: fDi Intelligence

Cross-Border Mergers and Acquisitions

Figure 5.9



*estimated by PitchBook

Source: PitchBook

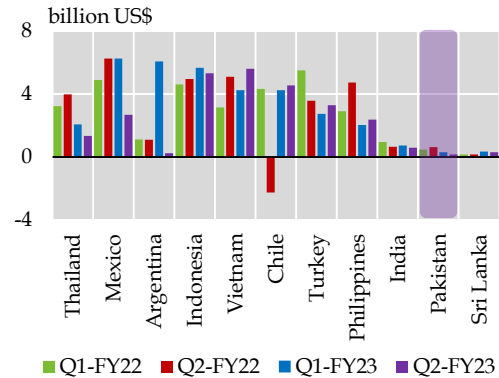
onset of the weak macroeconomic environment.¹¹ However, India outpaced the US, UK and China in attracting 225 FDI projects into research and development, reflecting the shift of multinational companies towards developing their own divisions on R&D in India over using intermediary providers.¹²

Developments in Pakistan

Overall FDI in Pakistan declined to US\$ 461 million in H1-FY23 from US\$ 1.1 billion in H1-FY22 (Table 5.4). Sector-wise FDI data depicts a drop in most sectors (power especially coal, financial firms, communications particularly telecom, and electrical machinery); however, there have been increases in the hydel, chemicals and food sectors.

FDI in Major EMs

Figure 5.10



Source: Haver Analytics

The decline in FDI into the power sector was largely due to the completion of a few projects under CPEC, such as the HUBCO Thar Coal Power Project.¹³ This was indicative in the decline in FDI inflows from China – a downturn of US\$ 163.7 million in H1-FY23 from the same period last year. There were also net FDI outflows due to the settlement of an investment dispute over a mining project, causing a disinvestment from mining and quarrying sector. Furthermore, inflows fell from the USA due to the shutting down of an online grocery service¹⁴ (a decline in transport sector) and a fall in inflows in the banking service.¹⁵

With respect to the telecom industry in Pakistan, it has faced challenges because of the floods, causing service degradation and hindering the proper implementing of projects; additionally, a popular micro-

¹¹ From July to September 2022, global venture capital funding was at US\$ 82.2 billion – one-third of its value in the past quarter; Crunchbase

¹² Data is up to October 2022. Source: fDi Intelligence

¹³ The project was completed in September 2022, according to CPEC Authority.

¹⁴ Airlift, initially a bus service that later pivoted to grocery delivery, shut down its operations in Pakistan in July 2022.

¹⁵ The major reasons quoted by said bank included global monetary tightening, inflation-led uncertainties and a slowdown in economic growth.

Sector-wise Net FDI Flows in Jul-Dec Table 5.4
million US\$

	FY22	FY23	Absolute Change
Power ↓	345.3	237.1	-108.2
Coal ↓	234.3	61.7	-172.6
Hydel ↑	38.9	70.7	31.8
Mining & Quarrying ↓	-3.3	-226.1	-222.8
Financial firms ↓	230.2	176.0	-54.2
Oil & gas** ↓	130.5	100.5	-30.0
Communications ↓	159.6	-24.9	-184.5
Telecom ↓	70.3	-51.4	-121.7
IT ↓	89.3	26.5	-62.8
Trade ↓	39.0	20.9	-18.1
Electrical machinery ↓	31.4	0.9	-30.5
Transport ↓	23.5	8.5	-15.0
Electronics ↓	-21.2	-25.3	-4.1
Chemicals ↑	15.3	16.2	0.9
Food* ↑	-0.9	3.3	4.2
Others ↓	162.0	173.8	13.0
Total ↓	1,114.7	460.9	-653.9

*includes food packaging; **exploration & refining

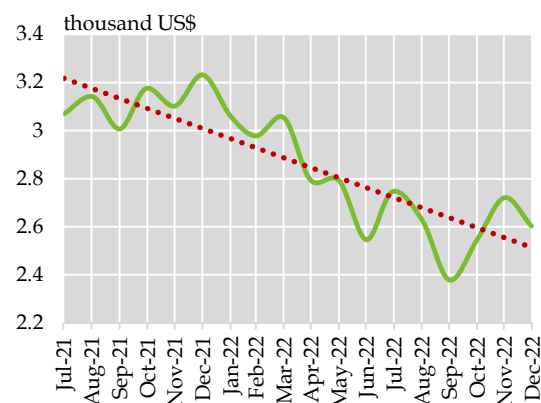
Source: State Bank of Pakistan

financing company has witnessed higher net FDI outflows in H1-FY23. Additionally, the oil and gas sector also faced downfall largely on the back of a lower demand for furnace oil and the dearth of sufficient technology for further exploration.

Foreign Portfolio Investment

Global trends

Global financial conditions underwent considerable tightening in H1-FY23; risk appetites dampened as global growth plunged further amidst persistent inflationary pressures and tightening of monetary policies. The MSCI world equity index declined in H1-FY23 in US dollar terms (Figure 5.11).

MSCI World Equity Index**Figure 5.11**

Source: Bloomberg

The tighter monetary policies affected EMDE capital flows; China saw considerable debt market outflows in CY22, with other EMDEs facing weak debt and equity flows. The appreciating US dollar has compressed borrower countries' ability to borrow that have a greater degree of net dollar exposures, thus adding on to inflation in these net dollar-debtor economies. Resultantly, EMDEs with larger dollar-denominated debt burdens used forex reserves, monetary tightening or both as buffers against the pressures on their domestic currencies. EMDE bond issuance dropped to its lowest level in CY22 since CY11 (Figure 5.12);^{16, 17} net energy-importer economies with weaker credit ratings noted an increase in their sovereign spreads.¹⁸

Developments in Pakistan

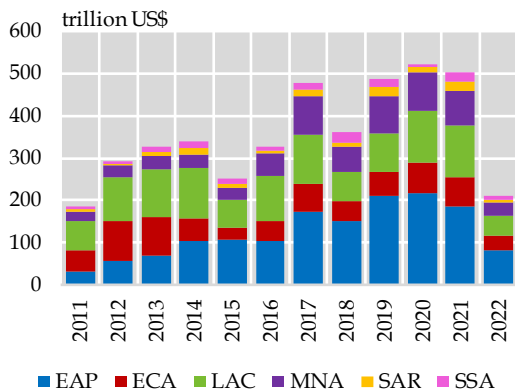
Pakistan underwent higher net FPI outflows in H1-FY23, amounting to US\$ 1.0 billion against outflows of US\$ 374 million during the same period last year. Most outflows of

¹⁶ Global Economic Prospects, World Bank

¹⁷ EAP = East Asia Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa

¹⁸ United Nations (2023). *World Economic Situation and Prospects 2023*, OCHA, United Nations

Bond Issuance in EMDEs **Figure 5.12**



Sources: Bloomberg and World Bank

US\$ 1.0 billion were from debt securities (Figure 5.13).

Sector-wise FPI saw net outflows in H1-FY23 from commercial banks, along with fertilizer and cement companies. However, there were net inflows from technology and communication companies, oil and gas exploration/marketing corporations, power

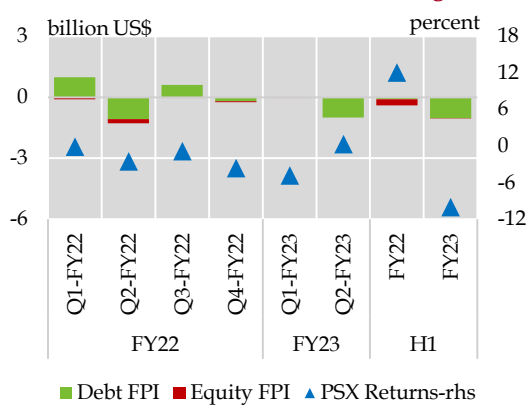
generation and distribution enterprises and textile companies (Figure 5.14).

Furthermore, decline in PSX returns and downgrading of Pakistan’s credit ratings by international credit-rating agencies resulted in FPI outflows.¹⁹ The CDS rates of major EMs remained elevated; Pakistan’s rates rose steeply, adding on to the difficulty in tapping funds from international markets (Figures 5.15a and 5.15b).²⁰

FX Loans and Liabilities

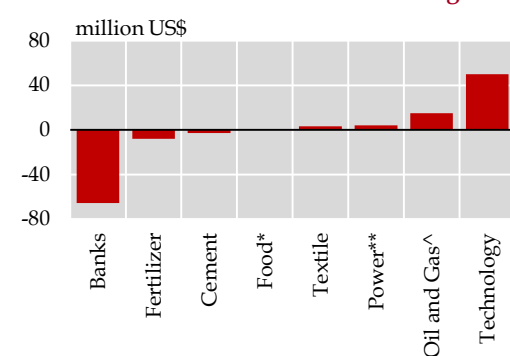
H1-FY23 saw net outflows of FX loans and liabilities of US\$ 860 million. The IMF disbursed US\$ 1.2 billion as part of the 7th and 8th combined reviews of the EFF. US\$ 1.6 billion were received from the ADB in order to help the Pakistani government provide social protection nets, promote food security, and support employment for its people with the onslaught of the floods and global supply chain bottlenecks. Other loans received included US\$ 600 million from

PSX>Returns and FPI into Pakistan **Figure 5.13**



Source: State Bank of Pakistan & Haver Analytics

Sector-wise FPI in H1-FY23 **Figure 5.14**

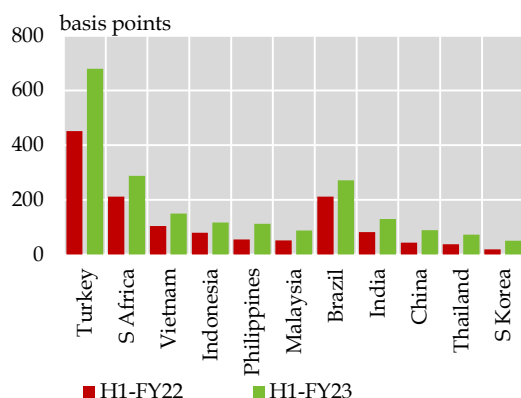


*Food and personal care products **Power generation and distribution ^Oil and gas exploration and marketing
Source: National Clearing Company of Pakistan Limited

¹⁹ These included S&P, Moody’s and Fitch.

²⁰ A CDS, akin to an insurance contract, provides the purchaser of the fixed income product with protection against various risks. It does so by transferring the risk to another party without transferring the ownership of the bond itself. Higher CDS rates indicate greater risk.

Average CDS Rates in Major EMs



Source: Bloomberg

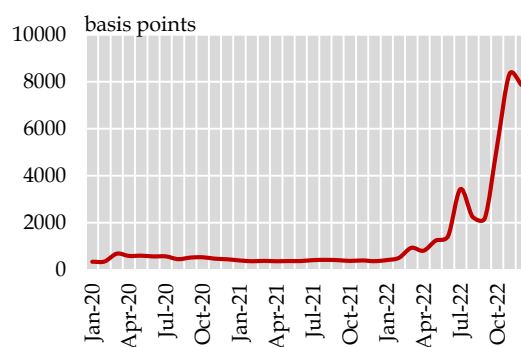
Saudi Arabia for oil imports and loans from the IDA branch of the World Bank for crisis-resilient social protection, Sindh Resilience Project, and the Pakistan Met Department (among other projects – summing to a total amount of US\$ 548.1 million).

Amortization of loans amounted to US\$ 5.4 billion in Jul-Dec FY23, up from US\$ 2.7 billion during the same period last year. This was mainly due to the repayment of commercial loans of US\$ 2.7 billion, IDB short-term loans of US\$ 800.7 million, along with other multilateral (ADB, IDA-World Bank) and bilateral (China, Saudi) loans.

5.4 Exchange Rate and Reserves

Despite a considerable decline of 60.9 percent in the current account deficit from US\$ 9.1 billion in H1-FY22 to US\$ 3.6 billion in H1-FY23, SBP's foreign exchange reserves dropped to US\$ 5.6 billion by end-December 2022 due to persistent pressures emanating from net outflows under financial account. External financial inflows during the period remained lower than the planned commitments and, hence, were inadequate to meet repayments causing FX reserves to decline. Net official external financial

Figure 5.15a Pakistan's CDS Rates



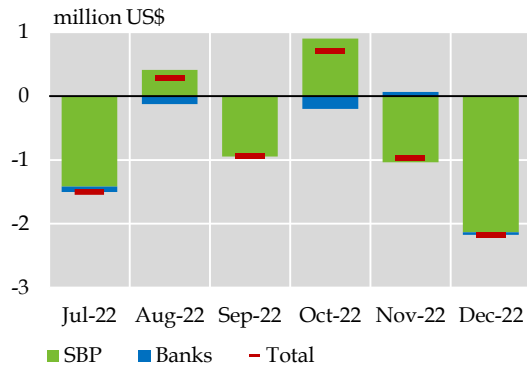
Source: Bloomberg

outflows reached to US\$ 1.2 billion in H1-FY23, as compared to net inflows of US\$ 10.1 billion during the same period last year.

Foreign exchange inflows materialized in the shape of IMF tranche of US\$ 1.2 billion in August 2022 subsequent to successful 7th and 8th reviews, multilateral loans (ADB, AIIB & IDA) totaling more than US\$ 3 billion and Saudi oil facility of US\$ 600 million. However, amortizations of gross official loans and liabilities almost doubled in Q2-FY23 from the previous quarter and amounted to US\$ 5.4 billion in H1-FY23. In addition, falling FDI and FPI resulted in overall net financial outflows that continued to exert pressure on foreign exchange reserves and exchange rate.

While SBP's FX reserves fell substantially during first half of FY23, FX reserves held with commercial banks were not under the same level of pressure and declined merely by US\$ 376 million. This may be attributed to lower trade financing as a consequence of demand management measures taken during the period. SBP's reserves recorded a major decline mainly on account of repayment of long term liabilities of US\$ 1.6 billion and

Breakdown of Change in Pakistan's Liquid FX Reserves in H1-FY23 Figure 5.16

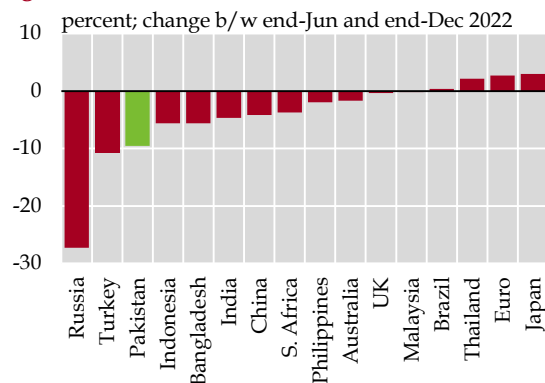


Source: State Bank of Pakistan

amortization of Sukuk bond of US\$ 1 billion in the months of November and December 2022 respectively (Figure 5.16).

Deteriorating external account position along with broad-based strengthening of USD against other currencies led to 9.5 percent depreciation of end-period mark-to-market exchange rate in H1-FY23 (Figure 5.17a).

Change in Major Currencies against US Dollar in H1-FY23 Figure 5.17a



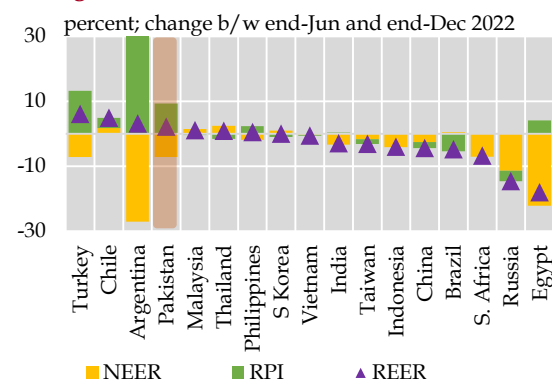
Source: Haver Analytics and State Bank of Pakistan

On the other hand, Real Effective Exchange Rates (REER) of most of the EMs remained relatively stable during H1-FY23 (Figure 5.17 b). As captured by the Relative Price Index (RPI), price pressures contributed positively to the change in REER of some EMs such as Pakistan, Argentina and Turkey, offsetting a general weakening in the nominal effective exchange rates (NEERs). Pakistan's REER appreciated by 2.4 percent during the period.

5.5 Trade Account²¹

In the backdrop of economic slowdown, demand contraction measures, and a slight moderation in oil prices, the trade deficit contracted by US\$ 8.5 billion (YoY) during Jul-Dec FY23 compared to last year (Figure 5.18). This decline was mainly led by a 23.0 percent decrease in the imports. Exports also dropped by 5.7 percent during the period owing to lower global demand due to the monetary tighten, supply chain disruptions amid Russia-Ukraine conflict, higher input cost and flood losses, particularly in rice production (Table 5.5).

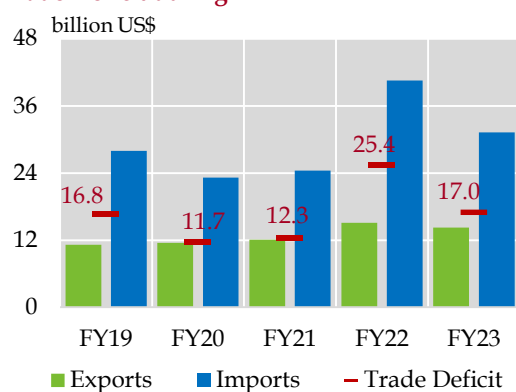
Change in REERs of Major EMs during H1-FY23* Figure 5.17b



*JP Morgan Effective Exchange Rates (deflated by CPI)

²¹ This section is based on customs data reported by the PBS. The information in this section does not tally with the payments record data, which is reported in Section 5.1. To understand the difference between these two data series, see Annexure on Data Explanatory Notes.

Breakdown of YoY Change in Trade Deficit during H1 **Figure 5.18**



Source: Pakistan Bureau of Statistics

Imports witnessed a sharp dip of 23.0 percent during H1-FY23 compared to 66.2 percent growth during the same period last year. This decline was a result of multiple factors: i) continued demand-moderating measures by the government and the SBP, including SBP's prior approval on opening of

letter of credit by banks; (ii) monetary tightening; (iii) imposition of 100 percent CMR on additional 177 items, and ban on non-essential imports in April 2022; (iv) foreign exchange concerns and; (v) increase in regulatory duty on import of various items in August 2022.

The decline in exports reflects the global slowdown in the demand in Europe, the UK and the US amid higher inflation on the back of growing energy expenditure, monetary tightening, and withdrawal of fiscal stimulus extended during Covid,. Also, the slowdown in Chinese economy pushed the exports downward. The decline in exports was mainly pronounced in the textile products amid decreasing prices along with the lower export volumes. Moreover, at domestic front, the disruptions due to the recent floods, and slowdown in economic activity, further dented the exports.²²

Trade Balance during Jul-Dec

Table 5.5

million US\$

	H1-FY22	H1-FY23	Change (YoY)	
			Absolute	Percent
Trade Balance	-25,438.0	-16,987.0	8,451.0	-33.2
Exports	15,125.0	14,258.0	-867.0	-5.7
Textile	9,381.2	8,717.5	-663.7	-7.1
Knitwear	2,500.3	2,466.8	-33.5	-1.3
Bed-wear	1,659.7	1,427.7	-231.9	-14.0
Cotton yarn	610.4	381.5	-228.9	-37.5
Non-textile	5,744.1	5,553.3	-190.7	-3.3
Rice	1,066.8	926.6	-140.2	-13.1
Sports goods	163.8	208.6	44.8	27.3
Imports	40,562.7	31,217.0	-9,345.7	-23.0
Energy	10,181.8	9,285.5	-896.2	-8.8
Non-energy	30,381.2	21,959.5	-8,421.8	-27.7
Palm oil	1,843.9	2,082.3	238.3	12.9
Machinery	5,915.4	3,236.2	-2,679.2	-45.3
Transport	2,318.5	1,163.0	-1,155.5	-49.8

Source: Pakistan Bureau of Statistics

²² Business Confidence Index (BCI) declined by 6.0 points during H1-FY23 on account of macroeconomic conditions. Source: State Bank of Pakistan's Business Confidence Survey.

Destination-wise Exports of Pakistan during Jul-Nov

Table 5.6

million US\$

	FY22	FY23	YoY change in FY23
EU-27	4,082.0	3,667.5	-10.2
Netherlands	629.9	706.1	12.1
Spain	473.7	593.1	25.2
Italy	397.1	453.4	14.2
Germany	712.6	730.9	2.6
US	2,697.6	2,307.7	-14.5
China	1,322.4	859.3	-35.0
UK	920.6	815.4	-11.4
Africa	633.7	604.2	-4.6
UAE	500.5	593.5	18.6
Bangladesh	385.5	330.6	-14.3
Afghanistan	274.8	418.6	52.4
Malaysia	183.6	128.2	-30.2
S. Arabia	154.1	74.7	-51.5

Source: Pakistan Bureau of Statistics

With respect to direction of exports, the drop was mainly seen in the major traditional markets, including US, China, and UK (Table 5.6). Exports to Malaysia, Bangladesh and Africa declined during Jul-Nov FY23. The fall could be traced from lower exports of food products and textile raw materials to Malaysia and Bangladesh respectively; amid the production disruptions due to recent floods.

On quarterly basis, there was a sharp dip in YoY growth of exports during Q2-FY23 compared to Q1-FY23. This could be traced to the base effect, as exports recorded a growth of 22.5 percent in Q2-FY22, highest since FY12 for the same period (Figure 5.19). Last year, the revival of economic activity and the subsequent pent-up demand in major export markets drove overall exports in Q2-FY22.

Exports

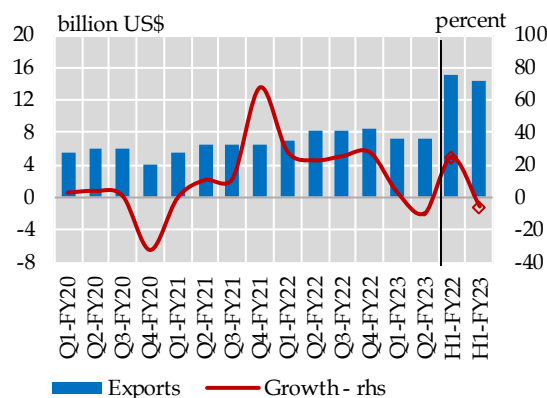
The merchandise exports declined to US\$ 14.3 billion in H1- FY23 from US\$ 15.1 billion last year. Disaggregated PBS data of Jul-Dec FY23 shows that the fall in exports was driven by both declining trend in export volumes and unit values. More specifically, high value added (HVA) textiles and food group, mainly contributed to the decline in exports.²³ This decline owed to the weak global demand and lackluster performance of the domestic economy amid the demand curtailing measures and rising input cost.²⁴ The non-textile exports also fell by 3.3 percent during H1-FY23 compared to 23.2 percent growth last year reflecting lower external demand.

Drag in textile sector dented the exports during H1-FY23

Textile exports declined by 7.1 percent to US\$ 8.7 billion during H1-FY23 from US\$ 9.4

Trend in Exports

Figure 5.19



Source: Pakistan Bureau of Statistics

²³ High value added products include apparel and home textile

²⁴ Large-scale manufacturing declined by 3.7 percent in H1-FY23 compared to a 7.7 percent rise last year.

Major Textile Sector Exports**Table 5.7**

million US\$

	H1-FY22	H1-FY23	Change	VE	PE
Apparel	4,332	4,300	-33	921	-953
Home textiles	2,184	1,919	-265	-513	248
Cotton Fabrics	1,135	1,066	-68	-271	202
Cotton Yarn	610	382	-229	-259	30
Other Textile Made-up (excl. Towels & Bedwear)	422	378	-45		
Other Textile Material	385	367	-18		
Art Silk and Synthetic Textiles	225	209	-16	-42	26
Total Textile Exports	9,381	8,717	-664	-	-

Note: VE: Volume Effect; PE: Price Effect

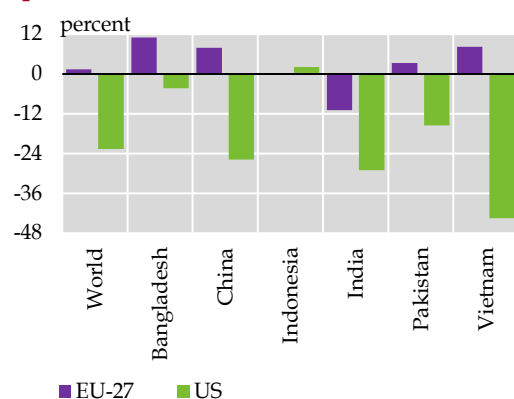
Source: Pakistan Bureau of Statistics

billion last year, mainly stemmed from the negative volume impact in the main categories (home textiles, cotton fabrics and cotton yarn). However, in case of apparel the fall in unit values more than offset the higher volume impact, resulting in deterioration in its exports (Table 5.7).

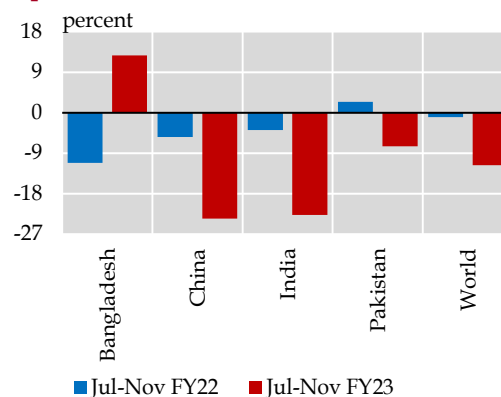
This performance was a result of both the demand and supply side factors. On demand side, the main factor that undermined the textile exports was the slowdown in the major importing economies due to tight monetary policies amid high

inflation and lingering Russia-Ukraine conflict. In particular, exports of home textile fell due to lower demand in EU, US, and UK (Figure 5.20a and 5.20b). Meanwhile, the slowed economic activity on the back of Covid outbreak in China affected the export of cotton yarn and fabric.

Exports of apparel (knitwear and readymade garments) also remained under pressure, which dropped by US\$ 33 million in H1-FY23 from last year. This drag was the outcome of fall in unit prices which held back the values, more than offset the rise in

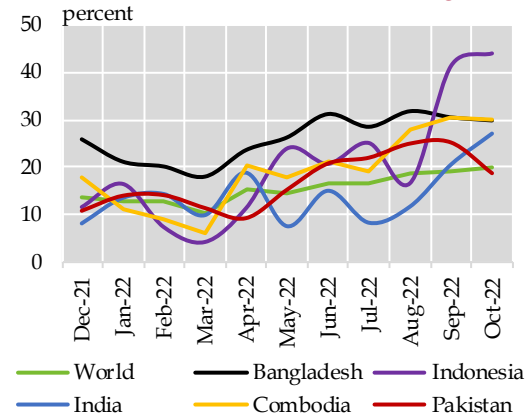
Growth in Quantum Home Textile Imports of the EU and the US in H1-FY23 Figure 5.20a

Source: Emerging Textiles

Growth in Quantum Home Textile Imports of the UK Figure 5.20b

Source: Emerging Textiles

Decline in Unit Prices of Apparel Figure 5.21

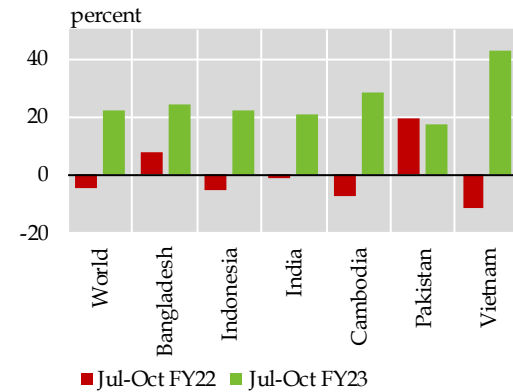


Source: Eurostats

volume gains (Figure 5.21).²⁵ A sharp dip of 23 percent in unit value of apparel explained the deterioration in its export receipts in H1-FY23. This muted the impact of higher apparel volume exports. Apparel registered higher demand in the traditional markets like EU-27 (Figure 5.22). Also, the Covid lockdowns in China led the export orders to the alternate markets, resulting in higher volume exports from Pakistan.²⁶

On supply side, various factors kept the textile exports under pressure during the review period: the increased production cost amid rising electricity and gas prices, monetary policy tightening, a slowdown in the disbursement of SBP's concessionary refinance schemes (LTFF and TERF), and shortage of raw material on account of flood losses.

Apparel Imports of EU27 - YoY Growth Figure 5.22



Source: Eurostats

Non-textile exports growth subdued in the H1-FY23

Non-textile exports declined by 3.3 percent to US\$ 191 million in H1-FY23. The decline was mainly driven by the agro-food products amid the lower production in the flood-affected areas. The quarterly data in non-textile exports showed a similar trend like textile exports. The decline was visible in Q2-FY23 due to a large base impact of same period last year, reflecting higher external demand of these products (Table 5.8).

Within agro-food exports, the negative volumes subdued the higher unit price impact mainly in rice, and oil seeds exports. Rice, having a largest share in food exports, sharply declined on account of a drop in the production of the rice amid the recent floods in the country that mainly affected the non-

²⁵ It is important to note that the significant increase in unit prices of apparel in FY22 was driven by higher demand for apparel exports arising in the backdrop of partial resumption of industrial activity and export order delays in other competing markets.

²⁶ US apparel volume imports from China dropped by 2.4 percent in 2022 compared to last year. While, shipments from all other countries increased by 14.8 percent during the period. Source: Emerging Textiles

Major Non-textile Exports (Jul-Dec) Table 5.8

million US\$	FY22	FY23	Change
Leather products	320	315	-4
Chemicals	300	337	38
<i>Ethyl alcohol</i>	129	201	72
Rice	1,067	927	-140
<i>Basmati rice</i>	304	279	-25
<i>Non-basmati rice</i>	763	648	-115
Fish and fish preparations	200	225	24
Sports goods	164	209	45
Total	3,246	3,140	-106
Non-textile, total	5,744	5,553	-191

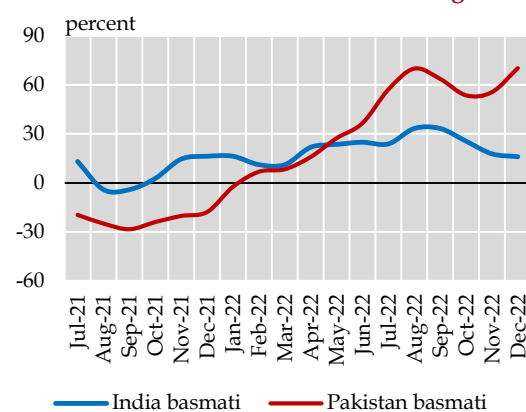
Source: Pakistan Bureau of Statistics

basmati cultivation areas.²⁷ As a result the exports of non-basmati rice declined by US\$ 114.8 million during H1-FY23. Whereas, the price impact remained positive owing to the higher global rice prices. This surge in prices of rice was mainly driven by the supply side constraints, as India imposed ban on export of rice in September 2022, aimed at managing the national food security in the backdrop of rising inflationary pressures (**Figure 5.23**).

The exports of various products including oils seeds, cement and clinkers registered a decline in H1-FY23. The decrease was mainly driven by the negative volume impact, particularly visible in exports to China. The volume of these exports to China, the main destination, fell by 9.7 percent and 96.4 percent, respectively, amid a slowdown in the Chinese economy during the review period.

However, sports goods and chemicals showed improvement in H1-FY23. Within

²⁷ The production of rice declined by 40 percent as compared to last year. Area under cultivation also declined. The flood damage was most severe in Sindh province where mostly non-basmati with higher yields is cultivated (**Chapter 2**).

Growth in Prices of Basmati Rice Figure 5.23

Source: Food and Agriculture Organization

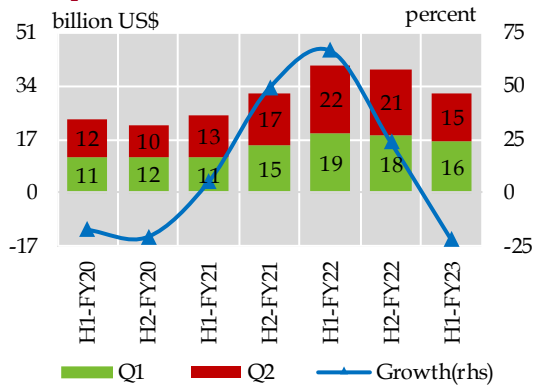
sports goods, almost the entire increase came from footballs amid the higher demand on account of the FIFA world cup in November and December 2022. Exports of fish and fish preparations also increased by US\$ 24 million in H1-FY23. This increase was attributed to higher volume exports to China.

Imports

In contrast to a historically rising trend, Pakistan's imports plunged by 23.0 percent YoY to US\$ 31.2 billion, in H1-FY23 (**Figure 5.24**) and this decline persisted throughout H1-FY23. Where exchange rate depreciation had a role in impacting the overall imports, administrative and regulatory measures taken by the government and SBP also remained pivotal in compressing imports and constraining the domestic demand pressures on external account amid depleting foreign exchange reserves (**Figure 5.25**).

For instance, SBP has imposed 100 percent cash margin requirements (CMRs) on the

Quarterly and Half-yearly Trend in Imports **Figure 5.24**



Source: Pakistan Bureau of Statistics

import of 114 mostly non-essential items in September 2021, and then on another 177 items in April 2022.²⁸

While global commodity prices also started tapering off during the period, the decline in

imports was mainly volume based. Contribution of all other sectors, except food, to the overall imports growth remained negative in H1-FY23 (Figure 5.26).

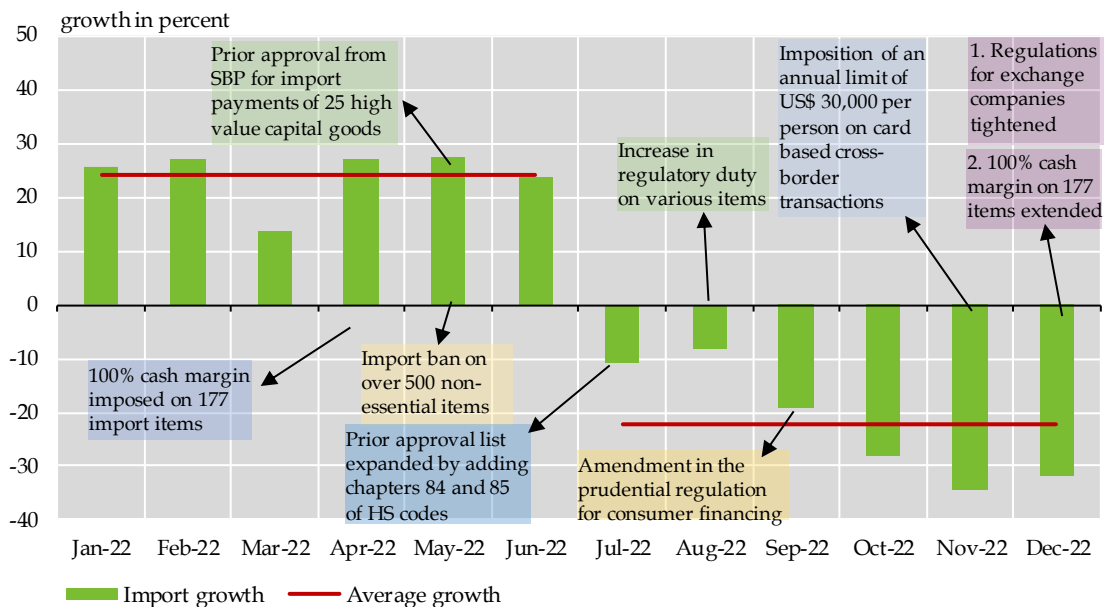
Energy Imports

Energy imports, which more than doubled in H1-FY22 predominantly due to higher international crude oil prices and rising energy demand, declined by 8.8 percent to US\$ 9.3 billion in H1-FY23 from US\$ 10.2 billion in the same period last year.

A confluence of factors could explain the declining trend in petroleum imports: i) Overall slowdown in the economic activity amid monetary policy tightening reduced the demand for petroleum products; ii) The restricted mobility and infrastructural damages in the wake of monsoon floods

Regulatory Measures and Import Growth

Figure 5.25

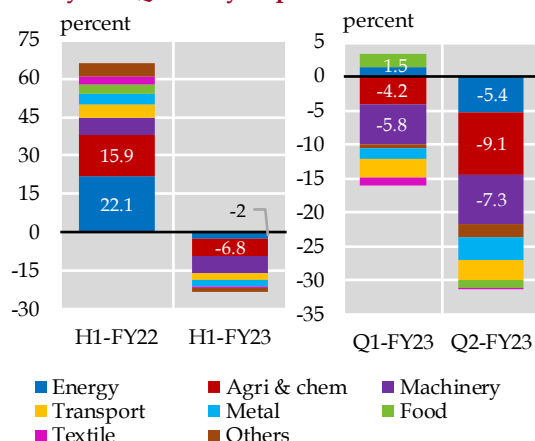


Source: State Bank of Pakistan, Ministry of Commerce and Federal Board of Revenue

²⁸ CMR was initially imposed in February 2017. As of December 2022, the total number of products attracting CMRs to 702.

Key Sectors Driving the Half-Yearly and Quarterly Imports

Figure 5.26



Source: Pakistan Bureau of Statistics

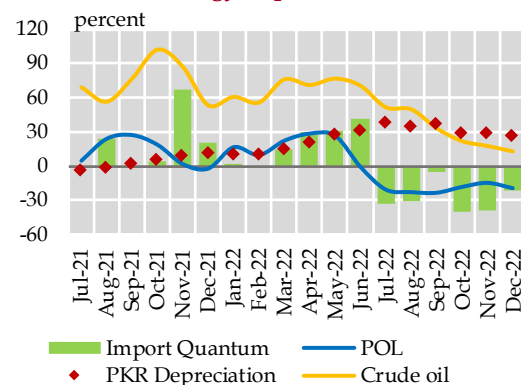
dedented transport sector’s demand; iii) Reduced power generation amid suppressed commercial usage also contributed towards declining POL sales (Figure 5.27).

The decline was mainly led by the negative volume impact of energy imports which more than offset the positive price effect, with an exception of petroleum crude where the positive price effect was more pronounced (Figure 5.28).

Energy imports fell mainly due to 36.9 percent decline in the imports volume of petroleum products. Among petroleum products, import volumes of HSD and furnace oil almost halved partly on account of lower demand amid economic slowdown. A broad-based decline is recorded in the POL sales across all sectors reflecting a general slowdown in domestic demand for these products. Particularly, High Speed Diesel (HSD) sales declined for the transport sector due to higher petroleum prices and flood related damages to road infrastructure; and

Factors that Underpinned the Downturn in Energy Imports

Figure 5.27



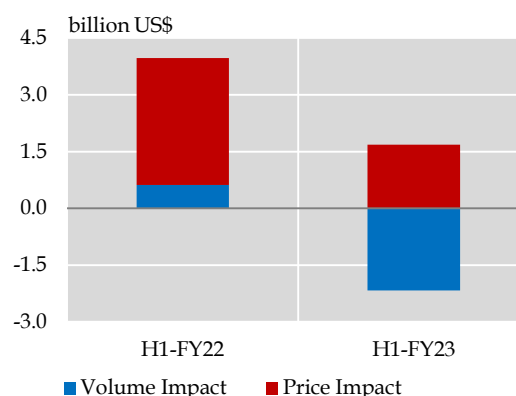
Source: SBP, IMF, OCAC and PBS

for the industrial sector as a result of slower economic activity.²⁹ Further, furnace oil sales declined mainly in the power sector on account of lower power generation. (Figures 5.29a & 5.29b).

However, in the case of petroleum crude, the positive price effect was more pronounced compared to the negative volume impact owing to the growth in global crude prices. Meanwhile, the imports of coal and LNG

Petroleum Imports

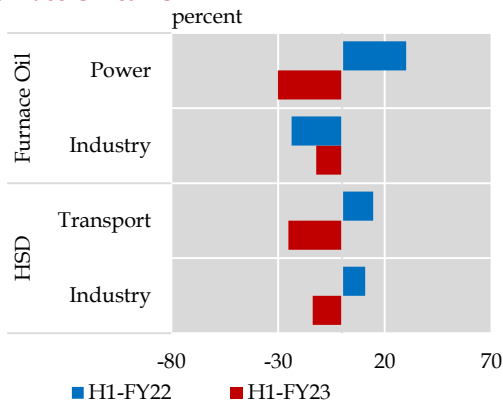
Figure 5.28



Source: Pakistan Bureau of Statistics

²⁹ Data Source: Oil Companies Advisory Council sectoral sales data

Growth in Sector-wise Sales of Furnace Oil & HSD Figure 5.29a



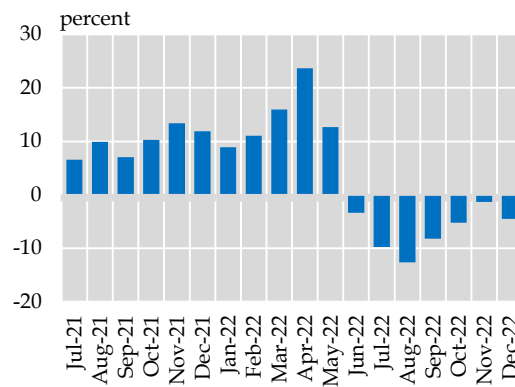
Source: Oil Companies Advisory Council

also registered a decline in H1-FY23. The weak demand arising from the coal based power generation plants was mainly driving the decline in coal imports. However, the supply chain disruptions in the backdrop of Russia-Ukraine crisis explained a decrease in LNG imports.

Non-energy Imports

Non-energy imports declined by 19.3 percent to US\$ 22 billion in H1-FY23 from US\$ 27.2 billion in the same period last year. Except for a 2.4 percent growth in Food imports, non-energy imports witnessed a broad-based decline during the period. In addition to economic slowdown, import compressing measures taken by government and SBP also contributed to the decline in imports particularly non-energy imports. These measures include, monetary policy

Electricity Generation Declined in H1-FY23 Figure 5.29b



Source: National Electric Power Regulatory Authority

tightening by 225 bps, Ministry of Commerce ban on 566 items for a limited time, imposition of CMR on additional 177 items³⁰, and condition of prior approval from SBP before opening L/Cs of CKD cars and items under Ch. 84 & 85 of HS Codes etc.³¹

Agriculture and Chemical

Agriculture and Chemical imports declined by 34.8 percent to US\$ 5.2 billion from US\$ 7.9 billion in the same period last year. Within this group, imports of medicinal products fell by 76.3 percent (Figure 5.30). This sharp decline can be explained by lower imports of Covid vaccines as country imported its significant volume last year, and contributed 5.8 percent to the overall 23 percent decline in imports. With the exception of minor growth in the imports of insecticides, plastic material, other chemicals

³⁰ Imposition of cash margin requirements on additional 177 items in April 2022

(www.sbp.org.pk/bprd/2022/CL9.htm), along with reporting requirements for banks to report CMR collected on the related imports, sunset clause of which was later extended to March 31, 2023 (www.sbp.org.pk/bprd/2022/CL37.htm)

³¹ Requirement for banks to obtain prior approval from SBP before opening L/Cs of 25 high value capital goods, including CKD cars in May 2022; (www.sbp.org.pk/epd/2022/FECL9.htm), to which complete Chapters 84 and 85 of HS codes were included in July 2022 (www.sbp.org.pk/epd/2022/FECL11.htm)

and fertilizer imports remained lower than the level of previous year.

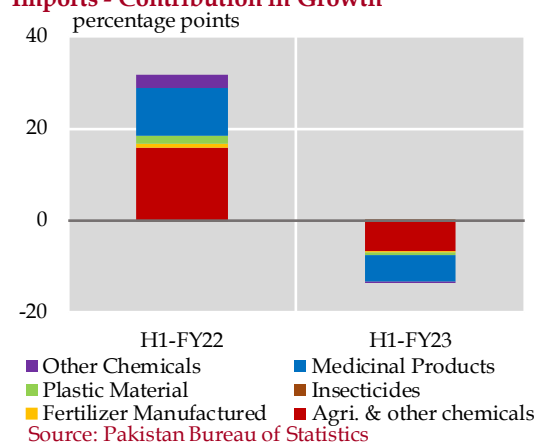
The decline of 10.7 percent in fertilizer imports is mainly driven by the substantially declining volume of DAP imports. Particularly, this trend is on the back of supply shortages caused by Russia-Ukraine conflict, unavailability of ammonia, primary raw material, resulting in production decline of DAP, and export restrictions imposed by China to meet its domestic DAP requirements. Meanwhile, the global fertilizer prices (including DAP and Urea) showed signs of YoY growth in Q1-FY23, sliding prices in Q2-FY23 kept the half yearly growth of fertilizer prices moderate.

Machinery

Machinery group imports were recorded at US\$ 3.2 billion in H1-FY23 (lowest in nine years), 45 percent down from US\$ 5.9 billion in H1-FY22. While monetary tightening during the period made financing of machinery more expensive in general, aligning of LTFF rates with the policy rate and exhaustion of TERF have also disincentivized the financing of machinery imports as also depicted in the significantly lower disbursements under these schemes. In addition, other regulatory and administrative measures (such as prior approval of SBP before opening L/Cs) were particularly focusing on non-essential items under the machinery group and caused machinery imports to drop significantly.

Within machinery group, the major decline was recorded in the import of mobile phones

Agriculture and Chemical Imports - Contribution in Growth **Figure 5.30**



followed by power generating machinery, other machinery and textile machinery.

Previously higher mobile prices due to shortage of semiconductor chips have started to moderate as inventories for semiconductor chips have begun to pile up amid lower sales of mobile phones.³² Moreover, administrative measures focusing particularly on chapter 85 under HS codes also led to lower import under this category.

The impact of these measures also reflected in the lower imports of power generating machinery which dropped to US\$ 288 million in H1-FY23 from US\$ 990 million in H1-FY22. Further, completion of various CPEC projects cause these imports to decline.

Similarly, textile machinery imports declined by 44 percent to US\$ 242 million in H1-FY23 against the US\$ 435 million imports in the same period last year. In addition to import compression measures, lower disbursements

³² Source: <https://asia.nikkei.com/Business/Tech/Semiconductors/Chip-glut-to-last-most-of-2023-while-automotive-crunch-persists>

under TERF also caused the textile machinery imports to decline.

Transport

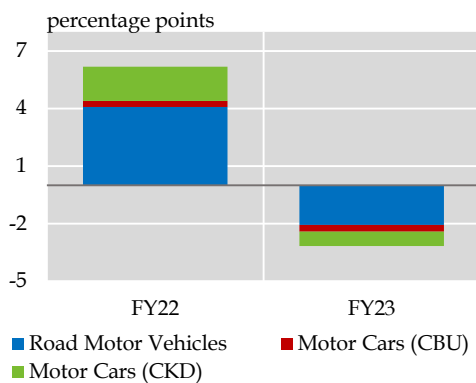
Transport group imports recorded a 50 percent drop to the level of US\$ 1.2 billion in H1-FY23 from US\$ 2.3 billion H1-FY22. CKD/SKD vehicles imports decreased by US\$ 489 million and steered the overall decline in transport imports (**Figure 5.31**). Within CKD/SKD vehicles, motor car imports declined significantly and reached the level of US\$ 498 million in H1-FY23 from US\$ 808 million in H1-FY22. Regulatory measures taken by SBP during H1-FY22 and H2-FY22 started to impact the import of road motor vehicles in general and import of CKD/SKD motor cars in particular during H1-FY23.^{33, 34} Following this, imports for

aircrafts, ships and boats fell by US\$ 353 million to US\$ 88 million in H1-FY23.

Metals

Overall lower economic activity and lower demand in auto and housing sectors along with demand compressing measures led the metal imports to fall by US\$ 1 billion and that is largely under the category of iron and steel and its scraps. The average unit value of iron and steel slightly increased as opposed to the lower average unit value of their scrap. On the other hand, international iron ore prices also saw a decline during the period. Overall import of steel dropped on the account of lower construction activity. As evident in the quantum index numbers of large scale manufacturing (LSM) industries, declining production of iron and steel products, and automobiles also led to lower demand for imported iron and steel and their scrap (**Figure 5.32**).

Transport Imports during H1 - Contribution in Growth **Figure 5.31**



Source: Pakistan Bureau of Statistics

Food

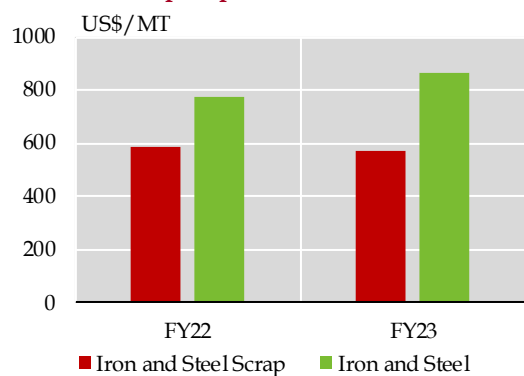
Unlike the broad-based decline in the imports of all other sectors, food imports grew by 2.4 percent during H1-FY23. Growth in food imports was mainly driven by the growth in the imports of palm oil, pulses and wheat (**Figure 5.33**).

Although volume of palm oil imports declined over the period, substantial increase in its price caused the import value to rise. On the other hand, imports of pulses and wheat increased both in volume and price.

³³ SBP attempted to restrict the demand for automobiles by amending the prudential regulation for consumer financing in H1-FY22. The key measures include, restricting the amount of the amortized payments to 40 percent of the monetized salary of the borrower, reducing the maximum tenure for the car financing from seven years to five years, increasing the minimum down payment from 15 percent to 30 percent, and limiting the overall auto financing limits by one person from all banks/DFIs (in aggregate) to Rs. 3,000,000 at any point in time. Source: www.sbp.org.pk/bprd/2021/CL29.htm

³⁴ Requirement for banks to obtain prior approval from SBP before opening L/Cs of 25 high value capital goods, including CKD cars, in May 2022 (H2-FY22). Source: www.sbp.org.pk/epd/2022/FECL9.htm

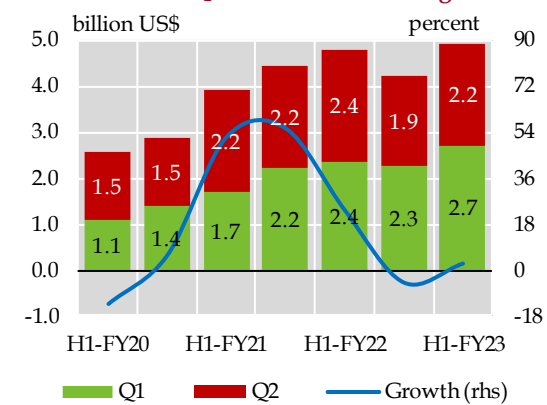
Average Unit Value of Iron & Steel and Scrap Imports **Figure 5.32**



Source: Pakistan Bureau of Statistics

Uptick in wheat imports volume may also be attributed to Government's efforts to ensure sufficient stocks until next harvest in April 2023. Whereas, wheat prices also

Trend in Food imports **Figure 5.33**



Source: Pakistan Bureau of Statistics

surged as a result of supply disruptions amid Russia-Ukraine war. On the other hand, sugar imports decreased to US\$ 3.3 million in H1-FY23 mainly due to the base effect.

Special Section: Pakistan's Growing IT Exports and Tech Start-ups: Opportunities and Challenges¹

Information Technology (IT) sector presents an opportunity for developing economies to leapfrog due to its transformative nature and lower entry barriers. IT facilitates this transition by improving efficiency and productivity across public and private sectors, potentially benefiting nearly all aspects of socio-economic life. However, IT-led leapfrogging depends on various factors such as the absorptive capabilities of individuals, businesses, and governments; effective coordination among stakeholders; availability and access to IT. The recent growth in Pakistan's IT service exports and tech start-up funding appear as emerging signs of digitalisation amid Pakistan's large young population alongside regulatory developments aimed at increasing digital adoption and online payments. Further benefitting from Covid-19, which led to increased demand for digital services, the growth in Pakistan's IT service exports averaged 24 percent between FY20-FY22, whereas start-up funding between CY21-CY22 reached around US\$ 709 million compared to approximately US\$ 100.8 million in CY19-CY20. However, to continue this trajectory and benefit from the transformative impact of IT, the digitalisation of the economy has to be prioritized across public and private sectors with a focus on bridging the increasingly noticeable human resource gap in the sector, providing a facilitative environment for investment in local start-ups, addressing the issue of availability and affordability of IT services, and the provision of cross-cutting technology and ancillary frameworks.

S1.1 Introduction

The Information Technology (IT) sector has a transformative impact on developed and developing economies. It is steadily becoming a key driver of economic growth and has been changing the structure of economies in many ways (**Figure S1.1**). This includes faster growth in capital and labour productivity; increased efficiency in traditional business operations; new opportunities for employment and entrepreneurship, especially for women and marginalised segments; fostering financial inclusion and financial sector development; and enabling knowledge spillover that stimulates innovation.²

Supported by the proliferation of telecom, internet and computing technologies, the growth in IT industry is being driven by two related but distinct categories that broadly encapsulate a wide and evolving field. The first, which forms the basics of IT led digitalisation, includes software production and its usage by individuals, businesses and governments. The second relates to broader digitalisation of economy via technology based solutions typically offered by start-ups that explore untested innovative ways of business models across various facets of economy and society.^{3,4}

¹ This special section draws on discussions with various public and private sector stakeholders including software exporting firms, relevant government bodies, incubators and start-ups from multiple sectors.

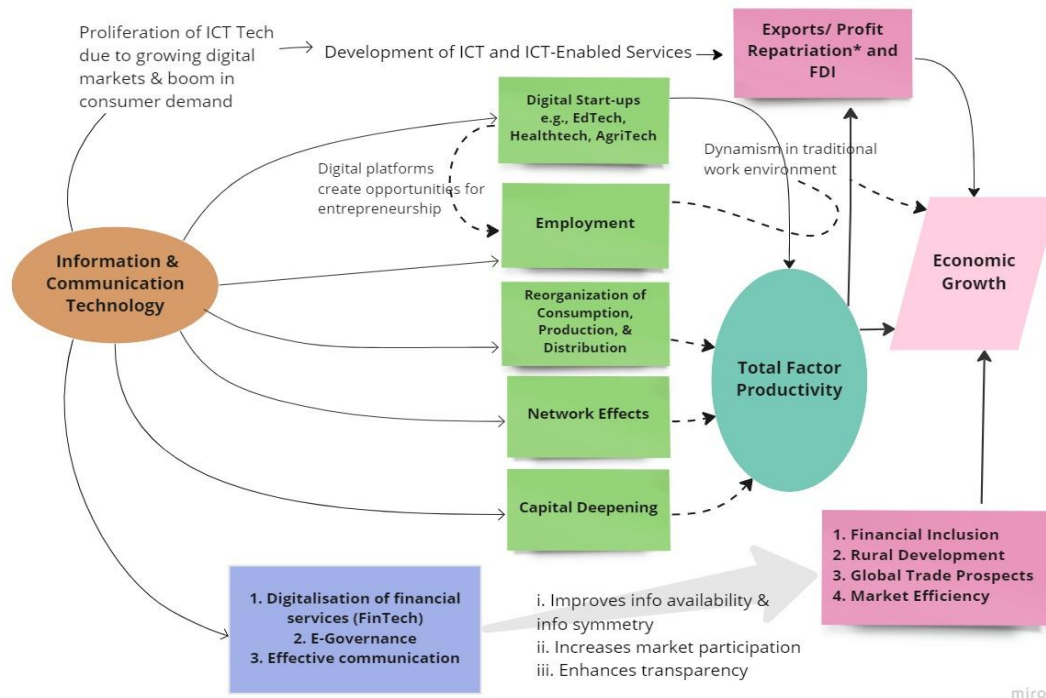
² Asian Development Bank (2010). *Information and Communication Technology for Development ADB Experiences*. Manila, Philippines: Asian Development Bank; T. Niebel (2018). ICT and economic growth: S. Asongu and B. Moulin (2016). The role of ICT in reducing information asymmetry for financial access, *Research in International Business and Finance*, Elsevier, vol. 38(C), pp. 202-213; W. Sutherland and M. H. Jarrahi (2018). The Sharing Economy and Digital Platforms: A Review and Research Agenda, *International Journal of Information Management*, vol. 43, pp. 328-341; C. Corrado, J. Haskel, C. J. Lasinio (2017). *Knowledge Spillovers, ICT and Productivity Growth*, Oxford Bulletin of Economics and Statistics, Vol. 79(4):

³ World Bank report (2022). *South Asia's Digital Opportunity Accelerating Growth, Transforming Lives*, Washington D.C: World Bank

⁴ The definition of start-ups is in want of consensus in academic and non-academic contexts. In this Special Section, the term is being used in the context of firms that explore new untested technology (or tech) based business models that disrupt the old way of economic organisation, production process or service delivery.

ICT's Impact on Economic Growth and Development

Figure S1.1



*Some Startups may scale up and invest abroad.

Source: SBP based on various papers cited in this special section chapter particularly: (a) J. Grace, C. Kenny, C. Zhen and W. Qiang (2004). *Information and Communication Technologies and Broad-Based Development*, World Bank Working Paper No. 12. Washington D.C: World Bank (b) M. Andrianaivo and K. Kpodar (2011). *ICT, Financial Inclusion, and Growth: Evidence from African Countries*, IMF Working Paper, Vol. 73. No.11, Washington D.C: International Monetary Fund (c) S. Asongu and B. Moulin (2016). *The role of ICT in reducing information asymmetry for financial access*, *Research in International Business and Finance*, Elsevier, vol. 38(C), pp. 202-213.

While there are certain commonalities between these two categories –such as need for programmers and coders, cloud storage and computing and digitisation of records – both are also quite distinct. Software and other IT firms can have large established players and SMEs, whereas tech start-ups are generally young firms with less than ten or even five years of operations. They are also distinct in their usage, application and intended impact. The former includes software production and design, software troubleshooting, software consultancy vis-à-

vis archetypical productivity-enhancing IT and software usage within existing business models. For example, generic or bespoke accounting or customer management software for financial or non-financial company.

The latter includes internet or telecom-based services – such as ride sharing solutions, e-commerce ventures, fintech, and education, agriculture and health technology solutions (edTech, agriTech and healthTech) – where the defining feature is a technology-based

product or business model that has been untested or little tested before. For example, an accounting mobile app that enables families and individuals to maintain easy to use household accounting ledgers connected directly with their bank accounts, credit card as well as credit bureaus for credit scoring.

Both these categories are also commonly known for different reasons. Software and other IT services have gained attention because of its growing share in international services trade, even though it is their usage in domestic economy across various sectors and operations thereof that leads to a transformative impact on economy. Start-ups have gained prominence due to the way they are disrupting old ways of economic and social organisation given the cross-cutting technology solutions they work on. While start-up services are also tradable across countries, they are typically tailored to their respective local environment at the time of their launch.

Globally, start-ups have also started using frontier technologies, i.e. new generation technologies which are reshaping industry and communication, paving the way for the fourth industrial revolution (4IR). These include Artificial Intelligence (AI), Virtual Reality, Big Data, the Internet of Things (IoTs) and other technologies that are being

built on the third industrial revolution that focused on IT and electronics.⁵ Unlike the previous revolutions, the pace of advancement of the 4IR is exponential,⁶ which implies that the opportunity cost for inaction or late action can be massive for developing countries.

The multi-faceted impact of IT sector therefore, has particularly persuaded developing economies to focus on IT as a development strategy because it provides an opportunity to leapfrog i.e. growth and development through adoption of latest technology in areas where earlier versions of technological means and methods were not adopted. Since IT alters the way consumers, producers, governments and citizens operate and interact with each other, increased focus on its production and usage - both domestic usage of IT and software services and expanding footprint of start-ups - helps bypass the traditional pathways to development; hence the leapfrog. Moreover, businesses and governments in developing countries are comparatively swift to switch to new technologies because they have no or relatively less sunk investments in legacy (i.e. older or soon to be outdated) technologies whereas IT sector has low entry barriers, making it an equalizing agent between individuals and countries.⁷

⁵ World Intellectual Property Organization website: (Available at: www.wipo.int/export/sites/www/about-ip/en/frontier_technologies/pdf/frontier-tech-6th-factsheet.pdf), Geneva: WIPO

⁶ K. Schwab (2016). *The Fourth Industrial Revolution: What It Means, How to Respond*. Fourth Industrial Revolution. Geneva: World Economic Forum

⁷ C. Perez and L. Soete (1988). *Catching up in Technology: Entry Barriers and Windows of Opportunity in Technical Change and Economic Theory*, Open Access publication from Maastricht University, Maastricht, Netherlands; K. Lee (2019). *Economics of Technological Leapfrogging*, working paper 17, United Nations Industrial Development Organization, Vienna: Austria; J. Manyika, M. Chui, P. Bisson, J. Woetzel, R. Dobbs, J. Bughin, D. Aharon (2015). *The Internet of Things: Mapping the Value Beyond the Hype*, New York: Mckinsey & Company

For governments, the growing prevalence of digital data repositories, telecom and internet, for example, opens new, effective and easily scalable ways to provide data driven policy and fiscal support. It also supports the private sector to leap frog; for instance, the internet has allowed farming communities and other marginalised segments of economy, such as women entrepreneurs, to by-pass the conventional brick-and-mortar way of retailing and directly venturing into web-based or mobile-app-based retailing (e-commerce & m-commerce). This is often across national boundaries as IT services exports and IT-enabled exports can flourish without capital intensive investments. Similarly, digital financial technologies (fintech) are fast tracking financial inclusion and digital financial payments in countries that have had significantly poor performance in brick and mortar banking networks and credit card penetration.

While the hardware aspects of IT remains prominent, a transformational shift from IT manufacturing sector to IT services has been witnessed recently. The move from a hardware to software-centric growth has been particularly pronounced in developing countries, due to declining costs of broadband internet, telecom services, and other new technologies that facilitate growth in both basic form of digitalisation i.e. software and software related services and wider form of digitalisation via start-ups.⁸

However, leapfrogging through IT-led growth and development depends on many enabling factors. These include absorptive capabilities of individuals, businesses and governments to learn, adopt and adapt to new technologies. This, inter alia, necessitates improving IT-focused human capital, wider digital literacy, and affordability of technology. Moreover, given the cross cutting nature of IT, the development of complementary technologies as well as rules and procedures in interlinked industries and sectors need to be upgraded to affect IT spillover and leapfrogging.⁹

In this regard, digitalisation of both public and private sectors of economy plays a critical underlying role as it directly impacts the addressable market for both domestic usage and exports of software, as well as start-ups. A large addressable domestic market provides a strong base for software firms to ultimately grow and cater to regional and foreign markets. Given the fast evolving nature of IT technology and that technological adaption is a continuous and cumulative process, the public sector has an important role to play. This includes improving coordination among stakeholders; increasing awareness and usage of sector-specific technologies; ensuring affordability and access to hardware and IT services, strong domestic demand for digitalisation;

⁸ *Measuring the Information Society Report 2018*, Vol.1, pp. 1-189, Geneva, Switzerland: International Telecommunication Union

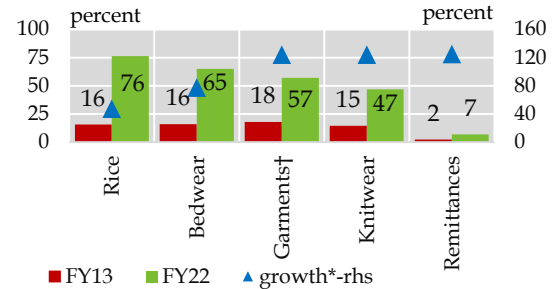
⁹ W.E SteinMueller (2001). *ICTs and the possibilities for leapfrogging by developing countries*, International Labour Review, Vol. 140, Issue No.2 ; M. W. L. Fong (2009). *Technology leapfrogging for developing countries*. Encyclopaedia of Information Science and Technology. Khosrow-Pour, Mehdi, ed. Information Science Reference, Hershey, Pa, USA, pp. 3707-3713.

availability of infrastructure, and provision of an enabling regulatory environment.¹⁰

In Pakistan, the recent growth in IT exports and start-ups appear as emerging signs of digitalisation. Driven by both enabling policies of the government and the central bank, availability of low-cost human capital, and the onset of the pandemic, both IT exports and tech start-ups have witnessed sharp growth in recent years. IT exports – mainly led by software and software-related exports - rose to \$2.1 billion in FY22 from \$0.89 billion in FY19 and \$0.29 billion in FY13. As a result, IT exports is increasingly becoming one of the leading foreign exchange earning segments of economy (Figure S1.2). Likewise, the size of funding and the number of deals in technology start-ups rose from around US\$ 37.5 million and 29 in 2019 to US\$ 347.4 million and 70, respectively, in 2022, led largely by international investors.¹¹

However, as discussed in next section, this growth stems from a negligible base. While software usage in domestic economy is uncommon, implying low level of basic form of digitalisation, the country's IT exports are dominated by small-sized software exporters most of whom export less than \$0.1 million a year. IT exports are not diversified, where the share of US alone is more than half. The

Figure S1.2
Pakistan's IT Exports as Percent of Other Foreign Exchange Earning Avenues



*Refers to growth in proceeds from above-mentioned export products and remittances between FY13-FY22
†Readymade

Source: State Bank of Pakistan

domestic tech start-ups on the other hand are concentrated in fintech and e-commerce that cumulatively accounted for 71 percent of total funding of all publicly reported deals between 2015-22.¹² Start-up activity as indicated by funding and deal count is not widespread across various sectors of economy, such as education, health and other sectors where digital transformation can have large positive externalities.

Moreover, both IT exports and domestic tech start-ups have substantially large room to grow. Even after such fast paced growth in recent years, Pakistan's share in global export of computer services is only 0.3 percent. Similarly, the start-up space still lags far behind regional and global players vis-à-vis

¹⁰ C. Xavier, D. Comin and M. Cruz (2022). *Bridging the Technological Divide: Technology Adoption by Firms in Developing Countries*. Washington, DC: World Bank; D. Suarez and E. Abdallah (2019) *Public Sector Readiness in the Age of Disruption in partnership with Seven Imperatives to Navigate your Journey to Readiness*, World Government Summit in partnership with PwC; J. Tanburn and A. D. Singh (2001). *ICTs and Enterprises in Developing Countries: Hype or Opportunity?* ILO Working Paper. Geneva: ILO

¹¹ Funding refers to an investment by any type of foreign or local investor in a start-up firm, usually against an equity stake in the firm, whereas deal refers to the number of funding transactions regardless of the size of funding. Investments by same investors in different funding rounds are reported as distinct deals.

¹² Source: Data Darbar

the presence of unicorns (start-up with \$1 billion valuation or more), venture capital (VC) funding and overall start-up ecosystem.

Lastly, the enabling factors needed for digitalisation are wanting. At the one end, human capital constraints have begun to emerge in the form of demand-supply gaps, skill-mismatch and inadequate quality of technical and soft skills. At the other end, low levels of basic literacy and weaker levels of digital literacy among population impairs absorptive capacity of technology.

Similarly, despite recent gains digital connectivity remains a challenge both in terms of access and usage as the cost of mobile phone devices and internet is higher in Pakistan compared to both advanced and peer economies and thus a constraint to potential digital transformation. From the perspective of underlying enabling technologies and frameworks such as cloud computing, strong cybersecurity and interoperability, policy framework has started moving in the right direction. However, in this regard, Pakistan is lagging behind peer economies.

Finance is another area that warrants attention, from the perspective of limited access to finance and fintech's current level of penetration in the face of low mobile money account ownership and the challenge of low levels of financial literacy. And while the country needs to improve significantly on e-government indicators to fast track digitalisation of economy that can increase the size of domestic market for software firms and start-ups, digital transformation

also ought to be made as top priority agenda alongside streamlining of sectoral policies and regulations.

With a focus on software exports and domestic tech start-ups within the broader IT sector, this Special Section is organized as follows. The next section discusses trends in Pakistan's IT exports and start-ups space, followed by Pakistan's comparison with regional and global players. Section S1.3 discusses the above mentioned enabling factors that have supported IT exports and start-ups thus far but are far from being adequate for digital transformation. The last section summarizes key insights and emphasizes the importance of enabling environment necessary for leapfrogging, which necessitates whole-of-the-government approach given IT's cross cutting nature.

S1.2 Trends in Pakistan's IT Exports and Technology Start-ups

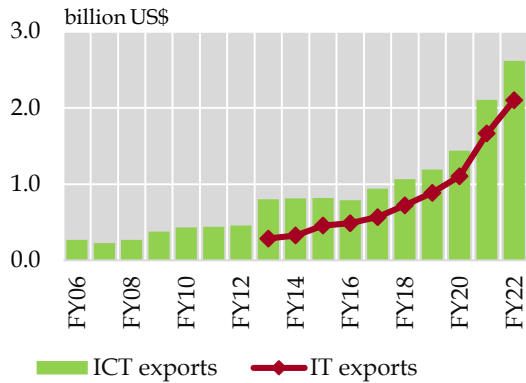
Pakistan's IT exports and technology start-ups have gained prominence in recent years. The former, led by software and software-related services, grew at a CAGR of 24.4 percent between FY17 and FY22, whereas the latter rose significantly during the same period, both in terms of deal count and in terms of funding.

IT Exports – Software and Software Related Services Leading the Way

In terms of export classification, IT is part of the larger ICT sector in Pakistan, which stood at only \$269 million in FY06 when reporting of ICT exports began as per BPM6 standard.¹³ It took more than 10 years before the country's ICT exports was able to cross

¹³ In line with Balance of Payments and International Investment Position Manual (BPM6), the classification 'ICT exports' is divided into three broad sub-categories: Telecommunication Services; Computer Services, and Information services. Each of these comprise different sub-categories that correspond to different nature of transactions as per the Purpose Codes currently adopted by the SBP.

Growth Trajectory of ICT & IT Services Exports **Figure S1.3**



Source: State Bank of Pakistan

the \$1 billion mark in FY18. However, the pace of growth accelerated sharply since then, with ICT exports crossing \$2 billion by FY21 and \$2.5 billion by FY22. (Figure S1.3). The share of ICT exports in total service exports increased from 7.2 percent in FY06 to 37.7 percent in FY22 which makes it the largest contributor of service exports.

The growth in exports of Pakistan's ICT sector is mainly led by Computer Services (IT exports), which contributed 80.5 percent (or \$2.1 billion) of Pakistan's ICT services

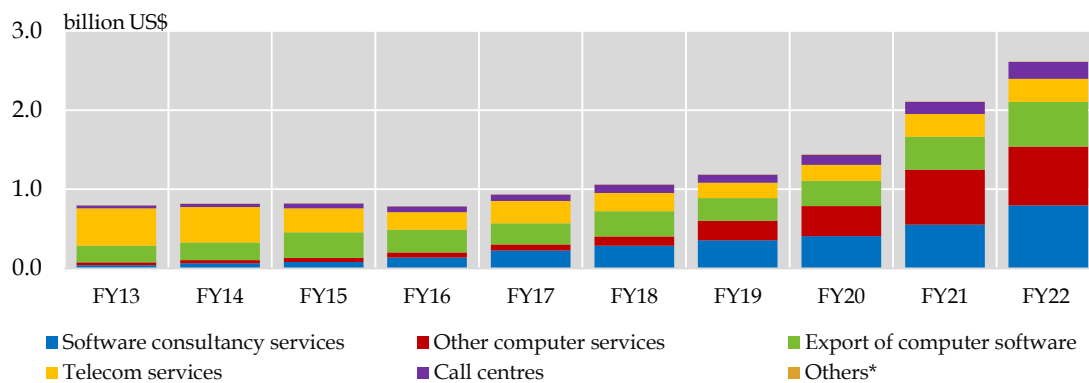
exports in FY22 with the rest of inflows stemming from Telecommunication Services category (including Call Centres) and a negligible share of Information Services (Figure S 1.4).

IT exports as classified under the category Computer Services comprise five sub-sectors: (a) Export of Computer Software; (b) Software Consultancy Services; (c) Other Computer Services; (d) Hardware Consultancy Services; and (e) Maintenance and Repairs of Computers. Of these, software and software related exports - i.e. Exports of Computer Software and Software Consultancy Services - have the largest share in Pakistan's IT exports rising to 52 percent in FY22 from 32 percent in FY13, as a result of an increase from \$255 million to \$1.4 billion during this period.

However, these official statistics do not fully capture the share of software and software-related exports. By definition, the category of Other Computer Services also includes a host of unspecified hardware, software and software related services, of which, industry

Breakdown of ICT Exports

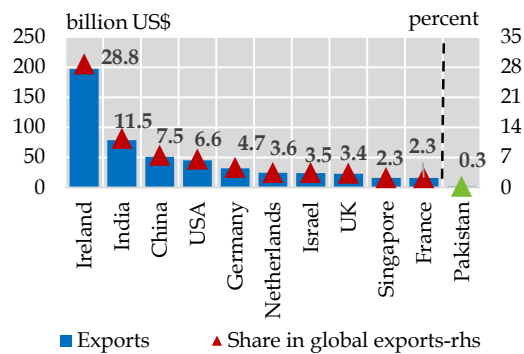
Figure S1.4



*Others include Hardware Consultancy Services, Maintenance & Repair of Computers, Information Services

Source: State Bank of Pakistan

Top 10 Exporters of Computer Services - 2021 **Figure S1.5**



Source: State Bank of Pakistan & International Trade Centre

estimates suggest, Pakistan mostly exports software and software-related exports since the country’s hardware industry is not as developed as software industry.¹⁴ Moreover, the official statistics of Other Computer Services also currently includes export proceeds (\$265 million in FY22) from Freelance of Computer and Information Services, which is also estimated to include software and software related consultancy exports by freelancers.¹⁵

Lastly, an additional \$1.5 billion of IT (including software and software consultancy) and IT-enabled exports was estimated to be in the grey market in 2019, which as per current industry estimates may have grown to \$2.5 billion by FY22.¹⁶ The

combination of these factors imply that total share of software and software-related exports in Pakistan’s IT exports may actually be higher than what is reported as per official classification.

Small Firms; Undiversified Markets

From the perspective of global trade, while Pakistan’s share in global exports of Computer Services remain small; it has increased from 0.17 percent in 2017 to 0.3 percent in 2021. (Figure S1.5) However, analyses of Pakistan’s export markets and firm-wise exports point towards substantial room for improvement.

In terms of export diversification, total IT exports are concentrated to a few markets where the share of USA has averaged more than 55 percent between FY13-FY22 (Figure S1.6). Moreover, while Pakistan’s exports to its top five destinations has increased slightly

Pakistan's Share in Computer Services Imports of its Top Export Destinations **Table S1.1**

Ranking	Top Exporters	2014	2021
1	USA	0.7%	3.9%
2	Singapore	0.1%	0.4%
3	UK	0.4%	1.4%
4	Ireland	0.0%	0.4%
5	UAE	9.6%	7.1%

Source: State Bank of Pakistan and International Trade Centre

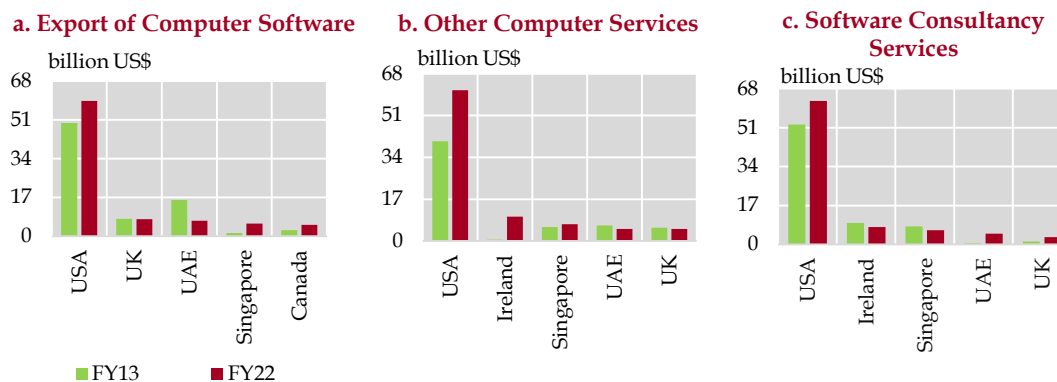
¹⁴ SBP’s purpose codes for services export classification are currently based on sub-sectors that have large inflows, and several hardware and software related services (identified in IMF’s BPM 6th Edition) that do not have large export inflows are currently clubbed as Other Computer Services. The full list of services included in other computer services may be reviewed at: (www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf page. 176-177 accessed on February 02, 2023)

¹⁵ Freelance of IT-enabled exports such as online tuitions, report writing and other services other than those related to computer and information systems are reported in a separate category-(Chapter 10)

¹⁶ State Bank of Pakistan (2019). Special Section: Performance of ICT Exports of Pakistan, The State of Pakistan’s Economy, First Quarterly Report 2018 – 2019, Karachi: SBP

Pakistan's Top 5 Export Destinations

Figure S1.6



Source: State Bank of Pakistan

in recent years (Table S1.1), its export share in the top importers of Computer Services remains negligible except for an increase in the share of US imports (Table S1.2). This underscores the need to explore new and other big markets.

Among the various reasons behind export market concentration is the existence of small IT firms that do not have adequate means to explore international markets, especially non-traditional markets (i.e. markets other than USA, UK, UAE) with which Pakistan does not have strong commercial or historical ties.¹⁷ Analysis of firm-wise data shows that more than 80 percent of firms in Pakistan export less than \$0.1 million and more than 90 percent export less than \$0.5 million per year.¹⁸ In terms of percentage of total receipts, relatively small firms contribute the most to total annual receipts in

Pakistan Export's Share in the Top Importers of Computer Services Table S1.2

Ranking	Top Importers	2014	2021
1	Germany	0.0%	0.1%
2	USA	0.7%	3.9%
3	China	0.1%	0.1%*
4	Singapore	0.1%	0.4%
5	Japan	0.0%	0.0%
6	France	0.0%	0.0%
7	Netherlands	0.0%	0.1%
8	India	0.0%	0.0%
9	Belgium	0.0%	0.0%
10	Sweden	0.0%	0.1%

* based on 2019 data

Source: State Bank of Pakistan and International Trade Centre

each of the major sub-categories of Computer Services (Table S1.3).

¹⁷ Pakistan's export market concentration is a structural issue affecting all sectors of the economy. The reasons for this concentration includes low level of export competitiveness and product diversification, and negligible investment in Research and Development (R&D) etc. (SBP website: www.sbp.org.pk/publications/staff-notes/SN-2-17-Export-Prefor-Pak.pdf and SBP website: www.sbp.org.pk/reports/annual/arFY16/Chapter-06.pdf)

¹⁸ NTN Reporting Firms.

Distribution of Firms by Size of Export Receipts - FY22

Table S1.3

Exports	Exports of Computer Software		Software Consultancy Services		Other Computer Services**	
	No. of	Cumulative	No. of	Cumulative	No. of	Cumulative
<0.1	769 (65)	19 (4)	3351 (80)	69 (12)	2185 (86)	38 (16)
0.1-0.5	237 (20)	56 (11)	643 (15)	143 (25)	281 (11)	60 (26)
0.5-1.0	84 (7)	59 (12)	124 (3)	85 (15)	32 (1)	22 (10)
1.0-5.0	69 (6)	146 (29)	84 (2)	156 (27)	32 (1)	56 (24)
5.0-10.0	8 (1)	50 (10)	5 (0)	32 (5)	2 (0)	15 (7)
10.0-50.0	7 (1)	120 (24)	5 (0)	97 (17)	1 (0)	40 (17)
>50	1 (0)	59 (12)	0 (0)	0 (0)	0 (0)	0 (0)
Total*	1,175	506	4,212	582	2,533	231

Figures in parentheses show percent of total. *The total may not match the official total figure as this figure

Soft information suggests that the existence of small firms in Pakistan may be attributed to a variety of factors including the nascent stage of domestic IT industry, the challenge of access to finance, increasingly evident human capital constraints, and insufficient domestic demand. While these are discussed in Section 3, it's important to note that although IT has garnered attention from the perspective of exports in Pakistan and in other developing economies, domestic software demand has an important role in fostering IT industry.

While countries like India and Ireland – top two global IT exporters – mainly benefitted from global demand, several other leading software exporting countries, such as both the earliest adopters of IT (Western European countries, and the US), and late followers (China, Brazil, Korea, and Russia) primarily thrived on strong domestic demand. This growth in domestic demand is partly supported by increased usage of IT by the government and government policy

interventions to drive IT consumption by domestic businesses and individuals.

This is because large domestic demand enables the typically small software firms to test their products, and gain competitiveness, scale and managerial capabilities, which readies them for international competition. Even in India and Ireland, demand for software by quality conscious domestic consumers, such as local multinational subsidiaries in financial and non-financial sectors, served as conduit for many firms to the export market. Moreover, India and Ireland have recently started focusing on domestic market digitalisation which includes plans for both increased usage of productivity-enhancing software by domestic businesses and increased frontier technologies' usage across the economy.¹⁹

Technology Start-ups

Pakistan's start-up ecosystem is still nascent but evolving, having grown manifolds in the

¹⁹ UNCTAD (2012). *Information Economy Report: The Software Industry and Developing Countries*, Geneva: UNCTAD; R. Heeks and B. Nicholson (2011). *Software export success factors and strategies in "follower" nations*, Competition & Change Journal, Vol. 8 No. 3, pp. 267-303; McKinsey Report (2019). *Digital India: Technology to transform a connected nation*, New York: McKinsey & Company; Government of Ireland website: (www.gov.ie/pdf/?file=https://assets.gov.ie/214584/fa3161da-aa9d-4b11-b160-9cac3a6f6148.pdf#page=null); European Investment Bank Report (2019). *The digitalisation of small and medium enterprises in Ireland Models for financing digital projects*, Luxembourg: EIB

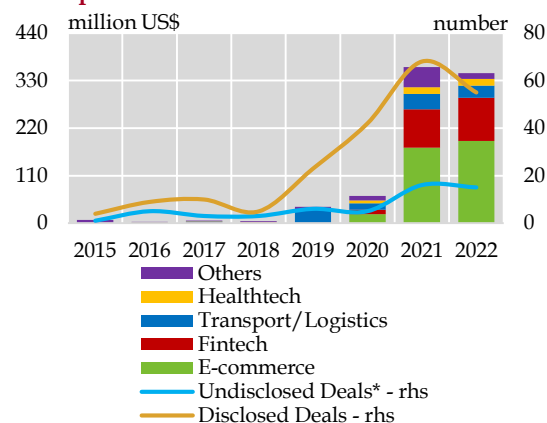
last seven years as measured by three key metrics: total funding raised by start-ups, total number of deals or deal count, and growing interest by international venture capitalists and other investors.

Local start-ups have raised roughly a total of US\$ 837 to US \$ 872 million between 2015 and 2022 with noticeable inflows witnessed in the last couple of years. Of the start-ups that closed deals between 2015-2022, about 11.4 percent are now inactive, with the rest either acquired or active. In

2021, local start-ups raised about US\$ 330 to US\$ 362 million, compared to US\$ 60 to US\$ 63 million in 2020. Similarly, the total number of deals increased to 82-84 in 2021 from 47 in 2020.

Sectoral division of these inflows shows that e-commerce and fintech accounted for 71 percent of total funding between 2015-2022. Similarly, in terms of deal count, the e-commerce and fintech sectors had a share of about 43 percent in total deals during 2015-22. On the contrary, during this period, edtech, healthtech, agritech and foodtech cumulatively attracted only 9.4 and 22.2 percent of the funding and deal count, respectively.^{20, 21} These indicators suggest that start-up activity is not widespread across different sectors, particularly those where digital transformation can have a large positive spillover (Figure S1.7).²²

Deals & Fundings - Pakistan's Startups Figure S1.7



* for the undisclosed deals the amount is not disclosed. Note: The total number of deals and funding may not match from different sources because of differences in classifications and categorisation of the startups and deals. Hence, the data is indicative and not exhaustive.

Source: Data Darbar

Nevertheless, international players have started investing in Pakistan's start-up ecosystem in recent years. For instance, Kleiner Perkins, an American venture capital firm and one of the investors in notable companies like Google, Amazon, and Twitter, made its first investment in Pakistan in 2021.²³ Similarly, Sequoia Capital, which partnered with companies like Instagram, Airbnb, Apple, and Zoom, also entered

²⁰ Deal count includes disclosed and undisclosed deals.

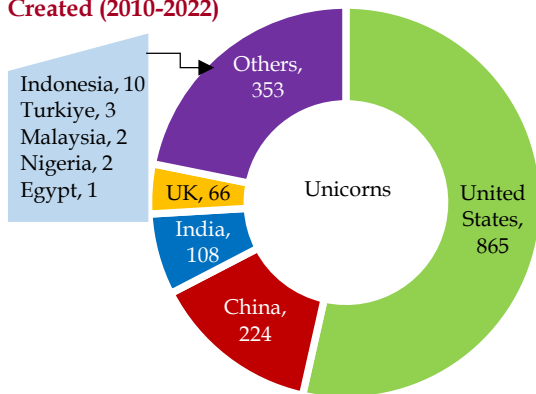
²¹ Estimates are based on the deal flow tracker by Invest2Innovate and Data Darbar. The data is reported on calendar year basis; data prior to CY15 is incomplete and inconsistent. Start-up-related statistics, in general, and the funding and deal count numbers, in particular, used in this section are indicative, and figures from different sources may vary. This variation originates from the differences in the classification and categorisation of the deals.

²² Ignite (2023), Study for Assessment of Pakistan's Startup Ecosystem

²³ Kleiner Perkins (www.kleinerperkins.com/partnerships/alumni [accessed on December 1, 2022] and www.kleinerperkins.com/perspectives/Tajir-new-funding/, [accessed on November 27, 2022]

Total Number of Unicorns Created (2010-2022)

Figure S1.8



Source: Traxcn

Pakistan’s start-up ecosystem.²⁴ Y Combinator, an American accelerator that helps start-ups grow and includes alums like Dropbox and Stripe, has also been involved in different Pakistani start-ups.

Further, other local and international firms, such as Pakistan’s Habib Bank Limited (HBL) and Brazil’s Nubank, one of the largest digital banks in the world, have also funded local start-ups.²⁵ Foreign start-ups are also attracted to Pakistan’s market; for instance, in 2021, Trella, a trucking and logistics start-up from Egypt, started its operations in Pakistan.²⁶

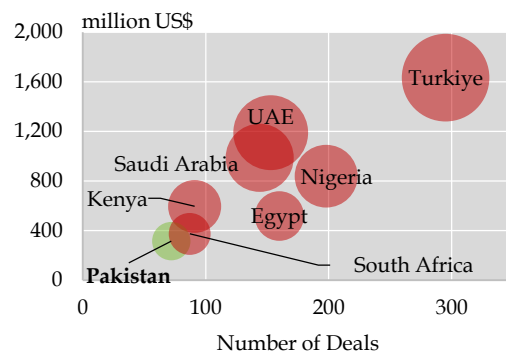
Pakistan’s Start-ups in Global Landscape

Pakistan’s start-up funding growth in 2021 was in line with global funding boom. In 2021, total venture funding worldwide rose by 114.5 percent to reach US\$ 638.4 billion, as compared to 14.8 percent growth in 2020.²⁷ Despite significant progress, Pakistan’s start-up ecosystem is still small compared to global leaders, and also lags behind regional players in multiple indicators.

For instance, India, with approximately more than 100 unicorns, is currently third in the list of countries with the most unicorns (Figure S1.8).²⁸ Likewise, other countries

Funding and Deal Count (2022)

Figure S1.9



Note: Size of bubbles represents share in total funding raised in Middle East, Africa, Turkiye and Pakistan
Source: Emerging Venture Markets Report, Magnitt

²⁴ Sequoia Capital (www.sequoiacap.com/our-companies/#spotlight-panel accessed on December 1, 2022) and Bloomberg (www.bloomberg.com/news/articles/2022-07-28/sequoia-enters-pakistan-s-start-up-economy-by-backing-fintech?leadSource=uverify%20wall [accessed on December 1, 2022])

²⁵ HBL (www.hbl.com/news-and-media/hbl-inks-landmark-investment-in-finja-pakistans-leading-digital-sme-lending-fintech, accessed on January 10, 2023 and TechCrunch (www.techcrunch.com/2022/07/27/sequoia-kleiner-perkins-nubank-invest-in-pakistan-fintech-dbank/, accessed on January 10, 2023)

²⁶ Trella (www.blog.trella.app/expansion/trella-in-pakistan-the-land-of-trucking-opportunity/ accessed on 26 Nov 2022) and Innvest2Innovate (i2i) (2021). *Pakistan Start-up Ecosystem Report (PSER) 2021*. Islamabad: i2i

²⁷ CB Insights (2022). *State of Venture*. New York: CB Insights.

²⁸ Source: Traxcn (www.traxcn.com/d/unicorn-corner/unicornlist, accessed on January 25, 2022).

with population trends similar to Pakistan have also produced their first unicorns. For instance, Indonesia had its first unicorn in 2016 and had produced approximately ten such companies by 2022. Nigeria, which also features in the top ten populous countries list, had its first unicorn in 2019. In comparison, Pakistan and Bangladesh are the only countries from the list of top ten

populous countries not to have produced a local unicorn by 2022.²⁹

Further, funding in Pakistan's ecosystem is still very small when compared with global leaders in the start-up space. For instance, of the disclosed deals during 2015-2022, local start-ups raised roughly US\$ 831 to US\$ 872 million.³⁰ In contrast, total funding of US\$ 136 billion, US\$ 837 billion, and US\$ 2.7 trillion were raised by the start-ups in India, China, and the USA respectively in the 2014-2022 period.³¹ Pakistan's funding level is also not yet at par with other emerging regional players. Of the US\$ 7.2 billion raised in 2022 in the Middle East, Africa, Pakistan, and Turkiye, the country's share was only 4.4 percent of total funding (**Figure S1.9**).³² In case of African countries, Nigeria, Egypt, Kenya and South Africa take up majority of tech investment in Africa owing mainly due to favorable ecosystems in their major cities amid growing presence of fintech.³³ In comparison to Pakistan, these African economies had better ranking in Global Start-up Ecosystem Index 2022 (**Table S1.4**). The index ranks 1000 cities in 100 countries on a host of criteria including the number of incubators, exits; and a mix of business and economic indicators. None of the cities in Pakistan featured in the top 100 ecosystems in the world. In contrast, India's Bangalore is

Global Startup Ecosystem Index 2022 **Table S1.4**

Country	Country Ranking	Highest Ranked City	Total No. of Featured Cities
United States	1	San Francisco Bay (1 st)	257
India	19	Bangalore (8 th)	38
Indonesia	38	Jakarta (32 nd)	5
Turkey	46	Istanbul (66 th)	4
Nigeria	61	Lagos (81 st)	3
Kenya	62	Nairobi (163 rd)	2
Egypt	65	Cairo (160 th)	1
Pakistan	76	Karachi (291 st)	3
Bangladesh	93	Dhaka (326 th)	1
Total Countries = 100; Total Cities = 1000			

Source: Startup Blink

Note: The total number of unicorns may vary from different sources.

²⁹ ibid

³⁰ Estimates based on deal flow compiled by Invest2Innovate and Data Darbar.

³¹ Inc42 (2022). *Indian Tech Start-up Funding Report 2022*. New Delhi: Inc42; The variation in the comparable period (i.e., 2015-22 for Pakistan and 2014-22 for other countries) is because the data used is from different sources. As highlighted above, in general, the datasets used to analyse the start-up space are indicative.

³² Magnitt (2023). *Venture Investment Report. Emerging Venture Markets Report*. Dubai: Magnitt

³³ A. Dushime (2022). "These four countries are leading Africa's start-up scene – here's why" Geneva: World Economic Forum. (www.weforum.org/agenda/2022/08/africa-start-up-nigeria-egypt-kenya-south-africa/, [accessed on March 03,2023])

ranked 8th, with four other ecosystems from the country are also ranked in the top 100 list. Similarly, Jakarta, Istanbul and Lagos also feature in top 100 ecosystems. The highest-ranked ecosystem from Pakistan is Karachi, with a rank of 291, followed by Lahore (305) and Islamabad (438).³⁴

Similarly, Pakistan ranked 97th out of 113 countries in the Asian Development Bank's Index of Digital Entrepreneurship Systems (AIDES) 2021 that tracks various aspects of digitalisation of economy and society, such as market conditions, physical infrastructure and policy and institutional support. While Pakistan's rank is better than Nigeria (101st) on AIDES; it lags behind India (75th), Egypt (73rd) and Indonesia (71st).³⁵

S1.3 Assessment of Drivers and Enabling Factors

The onset of Covid-19 provided a unique opportunity for businesses offering digital services as consumer habits changed from offline to online.³⁶ Measures such as social distancing, lockdowns, and working from home, led to wider adoption of e-commerce, digital payments, and online modes of communication, while fast-tracking the overall digitalisation of economies across the world. As a result, while total global services exports contracted by 17 percent year-on-year in 2020, IT service exports continued to grow.³⁷ In Pakistan too, while the country's IT exports had been growing prior to Covid-

19, the pandemic increased the pace of growth to a CAGR of 24 percent between FY20-FY22 compared to 14 percent in the preceding five years.

Tech start-ups also saw pronounced increase in the pace of growth after Covid. As highlighted in earlier section, start-up funding in Pakistan witnessed unprecedented growth in the post-Covid period. The global shift towards virtual meetings facilitated this, which allowed Pakistani founders to pitch remotely to global investors. Also, as Pakistan was one of the largest untapped markets, global funding activity in the country increased.³⁸

While Covid-19 provided an unexpected impetus to growth, a host of other factors such as Pakistan's large population, increased adoption of digital modes, and favorable regulatory developments also explain the recent trends in software exports and start-ups. However, as the ensuing discussion shows the country's overall economic and sectoral policy environment needs to improve to enable leapfrogging via digital transformation.

Market Size

Pakistan is the fifth most populous country in the world, with 72 percent of the population less than or equal to 34 years of age.³⁹ This serves as an advantage for the tech-centric start-ups in the country as young people are generally early adopters of

³⁴ Source: Startup Blink (www.startupblink.com/)

³⁵ E. Autio, E. Komlosi, L. Szerb, and M. Tiszberger (2021). Asian Index of Digital Entrepreneurship Systems 2021. *Background Paper*. Manila: ADB

³⁶ Invest2innovate (2021). *Pakistan Start-up Ecosystem Report (PSER) 2021*. Islamabad: i2i

³⁷ Source: World Bank and International Trade Centre

³⁸ Invest2innovate (2021). *Pakistan Start-up Ecosystem Report 2021*. Islamabad: i2i

³⁹ Source: UN Population Division, World Population Prospects 2022.

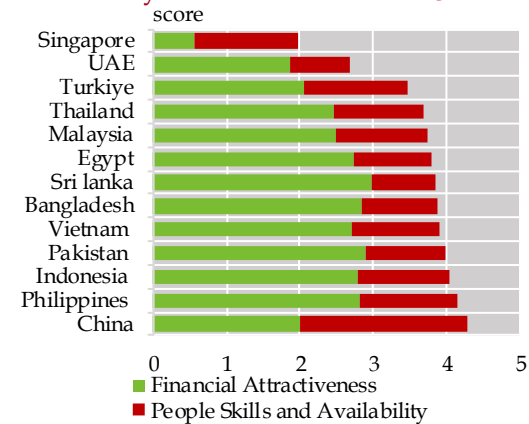
technology. For instance, the percentage of adults who own a smartphone is generally higher in the 18-34 age group compared to those above 50 years of age in emerging and advanced economies.⁴⁰

In addition to population, growing middle class and income levels have a positive impact on the start-up landscape in the country.⁴¹ Although Pakistan's GDP per capita income is lower than peer countries, it has risen from US\$ 531 in 2000 to US\$ 1,282 in 2015, reaching US\$ 1,505 in 2021.⁴² The country was the 15th largest consumer market in 2020 and is expected to become the seventh-largest by 2030.⁴³ This collectively serves as an opportunity for start-ups to foster as domestic consumption grows in the country; and hence attracts the attention of venture capitalists.

However, several factors present a challenge to the prospects of digitalisation in general and growth of start-ups in particular, given their detrimental impact on purchasing power and the addressable market size. For instance, the potential of Pakistan's increasing working age population may be limited by a substantially low level of literacy and a high prevalence of stunting that affects

A.T. Kearney GSLI 2021

Figure S1.10



Source: A.T. Kearney Global

cognitive abilities whose impact is not fully reversible.⁴⁴ Other constraining factors include Pakistan's recurring balance of payment crisis, boom-bust cycles of economic growth and overall macroeconomic instability; as well as low female labour force participation that can impair the country's absorptive capacity.

Human Capital

As per some estimates, Pakistan has supply of 20,000 – 25,000 fresh engineering and IT

⁴⁰ PEW Research Center (www.pewresearch.org/global/2019/02/05/smartphone-ownership-is-growing-rapidly-around-the-world-but-not-always-equally/)

⁴¹ A. Syed and A. Bokhari (2019). *Starting up: Unlocking Entrepreneurship in Pakistan*. New York: McKinsey & Company

⁴² Data are in current U.S. dollars. Source: World Bank [accessed on February 28, 2023]

⁴³ H. Kharas and W. Fengler (2021). *Which will be the top 30 consumer markets of this decade? 5 Asian markets below the radar*. Brookings Institution Blog. Available at www.brookings.edu/blog/future-development/2021/08/31/which-will-be-the-top-30-consumer-markets-of-this-decade-5-asian-markets-below-the-radar/, accessed on December 22, 2022.

⁴⁴ An estimated 54 percent of working-age population in 2031 will be illiterate or have only primary level education, whereas 27 percent of the working age population in 2033 is estimated to be those who suffered from stunting in childhood years. Details in Chapter 7, *The Promise of Pakistan's Demographic Dividend?*, State Bank of Pakistan Annual Report 2021-2022.

How Easy or Difficult is Hiring Skilled Employees?

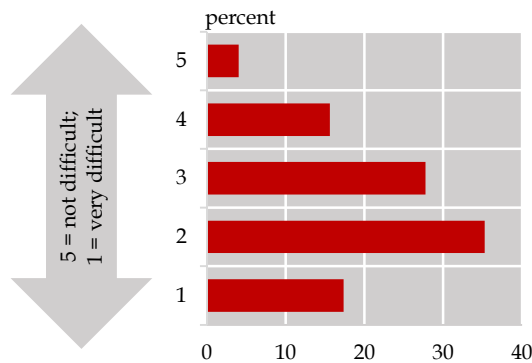
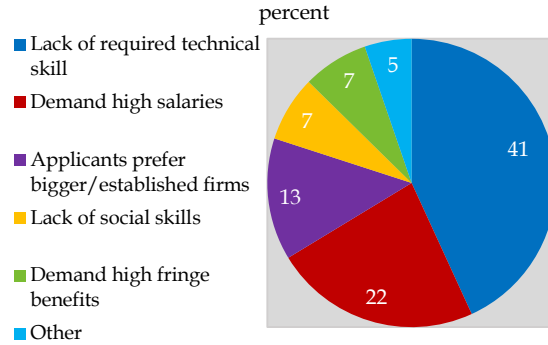


Figure S1.11a

Why is Hiring Skilled Employees Difficult?



Source: SBP Startups Survey 2022-2023 (unpublished)

graduates every year.⁴⁵ So far this has provided a stable base and supported the growth in software exports and start-up industry.⁴⁶ Moreover, IT sector wages in the country are at par with peer economies, as indicated by the financial attractiveness component of Kearney’s Global Service Location Index. This is representative of the relatively favorable wage rates in Pakistan compared to those in more established destinations such as Singapore and China. (Figure S1.10). However, evidence suggests that the country has started to face human capital constraints in IT sector which, if left unaddressed, will hamper future growth in the industry.

inadequately educated workforce as the second biggest challenge after political instability; 22 percent of these firms report workforce as a major problem, the most by any other sector.⁴⁷ This resonates with the SBP’s forthcoming survey on start-ups whose preliminary results show that majority of IT firms face high level of difficulty in hiring skilled employees (Figure S1.11a). In part, this is because IT firms, being typically small and nascent, also find it difficult to pay high salaries, perks or otherwise compete in terms of employees’ choice with bigger and established companies that are mostly found in the traditional non-IT sector (Figure S1.11b).

Skilled human resource is a challenge for all sectors of the economy in Pakistan. However, of all the major problems faced by businesses in the country, IT related firms report

Considering the estimates of over 40,000 new job openings in just 140 companies in 2021, the shortage of skilled resources in Pakistan is considered to be biggest bottleneck in

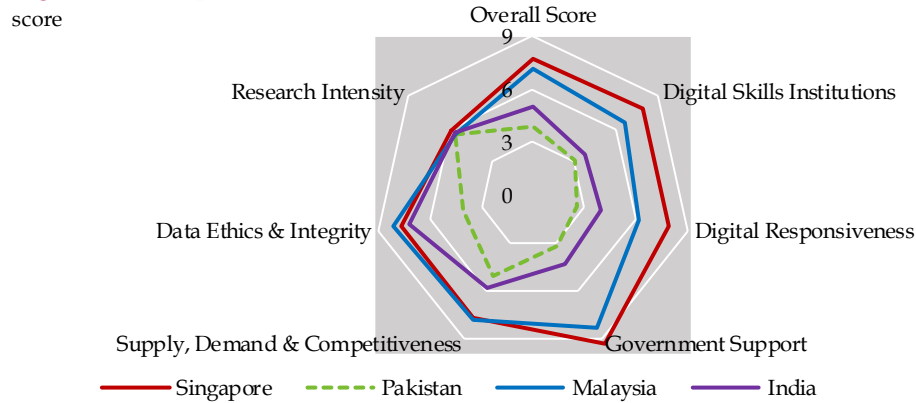
⁴⁵ These numbers are not annually reported but are rather rough estimates quoted widely by public and private sector organisations (including Ministry of Information Technology and Telecommunication and Pakistan Software House Association.) This underscores the need for periodic estimates of the supply of labour in the fast-evolving industry of increasing importance.

⁴⁶ World Bank Report (2020). *Pakistan Economic Policy for Export Competitiveness; Digital Pakistan: A Business and Trade Assessment*; Pakistan Software Export Board. Washington DC: World Bank

⁴⁷ World Bank Report (2019). *Pakistan: Skills Assessment for Economic Growth*, Washington DC: World Bank

Digital Skills Gap Index - Selected Countries

Figure S1.12



Source: Wiley Digital Skills Gap Index, 2021

achieving the desired growth in software exports and tech start-ups. Moreover, the adequacy and quality of skills in the trained workforce is also a stumbling block. Only 10 percent of the IT graduates are employable, given different levels of weaknesses in both technical as well as soft skills; soft skills include marketing, social skills, problem solving or critical thinking, entrepreneurship mindset, and English language proficiency needed to engage international buyers or investors as the case may be.⁴⁸

These challenges exist mainly because of a large industry-academia divide and other institutional gaps as also reflected in Pakistan's performance on various metrics of digital skills (Figure S1.12) including performance of digital skills educational institutions, and supply, demand and competitiveness aspects. In addition to improvements in skills for existing technologies, investments are also needed to

improve skills required for a growing wave of frontier technologies such as AI, robotics, and IoTs. With a rank of 146 out of 158 countries, the country scores 0.09 out of 1 in the skills component of UNCTAD's Frontier Technology Readiness index 2019 compared to Indonesia's score of 0.28, India's 0.31, Nigeria's 0.33, Egypt's 0.45 and Malaysia's 0.46.⁴⁹

These gaps need to be addressed if Pakistan is to grow its IT exports and fast track digitalisation. Indeed, labour input has been the most important factor behind growth in IT exports of leading exporters like India and Ireland.⁵⁰ One obvious solution is to significantly increase the number, and employability, of university graduates to be able to drive export growth and digitalisation of domestic economy alongside consistent wide ranging improvements in the quality of their skills. However, since university education takes a long time, there

⁴⁸ PASHA (2022). *The Great Divide: The Industry - Academia Skill Gap Report*, Karachi: P@sha

⁴⁹ UNCTAD (2019). *Frontier Technology Readiness Index*, Geneva: Switzerland

⁵⁰ R. Heeks and B. Nicholson (2011). *Software export success factors and strategies in "follower" nations*, *Competition & Change Journal*, Vol. 8 No. 3, pp. 267-303

is a need to scale up ongoing interim solutions being offered by the public and private sector.⁵¹ These include on-site and off-site IT skill bootcamps and other skills development programmes, such as train-the-trainer modules and training via social-media platforms, to quickly address the skill gap in specific IT related skills including data analytics, cloud computing, coding, software development and app design.⁵²

To this end, top-tier global bootcamp companies may be invited to set up camps across the country under various forms of public-private-partnership models. Considering that male staff comprise more than 90 percent of IT sector’s human resources, there is a need to focus these efforts on females as well to reduce the gender gap.⁵³ Lastly, to incentivize employee training and to increase attractiveness of IT sector in terms of employee choice, fiscal incentives may be offered on employee stock options in line with international best practices.⁵⁴

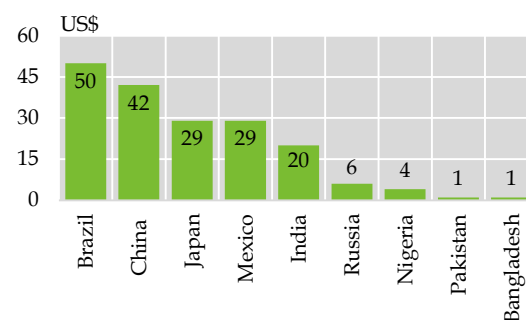
Access to Finance and Investor Funding

Access to credit in Pakistan, one of the lowest among emerging markets, is rather limited due to a host of demand and supply side challenges including lack of collateral. For technology companies (software oriented or otherwise) it is even more difficult since

these firms are typically young, and without large parcels of land or plants that could be used as collateral.⁵⁵ Accordingly, the absence of collateral affects software export growth prospects since IT firms do not necessarily have the working capital needed to meet export orders, nor a collateral to avail financing under Export Financing Schemes. One exception was the currently suspended SME Asaan Finance which is sector-agnostic concessionary financing provided to SMEs in which loans maybe secured against personal guarantees.⁵⁶

In the case of start-ups, non-bank means of financing, such as venture capital, plays a much more important role. This is because the prospects of start-ups are untested, given

Venture Funding Per Capita in Selected Countries* Figure S1.13



*Investment totals are for the 12 months ending October, 2021

Source: Crunchbase

⁵¹ These include Ignite’s DigiSkills Program, and various skills development training program by Pakistan Software Export Promotion Board and provincial IT boards

⁵² Bootcamps refer to short, often 3-6 month, high-intensity, immersive training

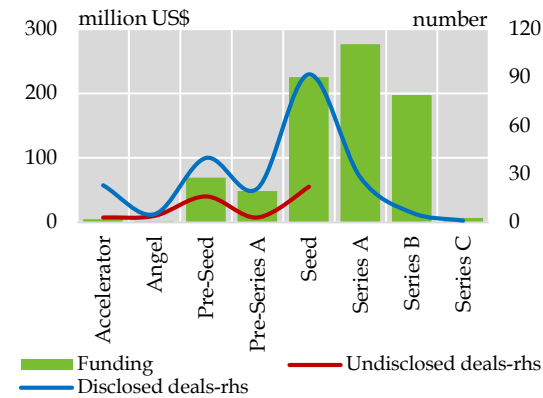
⁵³ PASHA (2021). *Pakistan IT Skills Survey Report*. Islamabad: PASHA

⁵⁴ Ignite-National Technology Fund (2021). *Study for Assessment of Pakistan’s Start-up Ecosystem & Freelancing Ecosystems*

⁵⁵ For weak private sector credit penetration in Pakistan, see, Chapter 7, *Understanding Low Private Credit Penetration in Pakistan Contextualizing Recent Policy Reforms* in the SBP’s FY20 Annual Report on the State of Pakistan’s Economy Report.

⁵⁶ Source. State Bank of Pakistan (www.sbp.org.pk/sme/d/circulars/2021/C9.htm)

Funding by Type of Rounds **Figure S1.14**



Note: Deals classified as convertible notes, corporate investments, and with the "undisclosed" round type are not included in the figure. However, the mentioned rounds may contain the deals whose amount was not disclosed.

Accelerator: funding from accelerator programs (generally, accelerators focus on early-stage and growth-driven startups and provide mentorship as well)

Angel: typically, an early-stage funding round conducted by angels (high-net-worth individuals)

Pre-seed: funding at the early or ideation stage

Seed: generally referred to as the first formal round; at this stage, companies have a minimal viable product with a better understanding of the market and low to no revenue.

Pre-series A: a mid-round between seed and series A

Series A: first formal round of venture funding; startups at this stage generally grow revenue, expanding teams and customers.

Series B: Typically succeeds Series A, with startups focusing on scaling and exploring new markets.

Series C and Beyond: Late-stage rounds with companies showing success.

Note: The definition of terminologies about startups is evolving. For instance, pre-seed was earlier considered a pre-institutional round, but now with VCs investing at this stage, it is also becoming a formal round.

Source: Data is from Data Darbar and definitions are from various sources including Pitchbook and Crunchbase.

the innovative nature of the business- that founders have to develop, launch, and then scale. As discussed in Section 2, start-up funding has increased in recent years. However, despite *recent* high growth in start-up funding, venture funding per capita in the country is small at approximately US\$ 1 (Figure S1.13).

In addition, funding breakdown shows that angel rounds are scarce in Pakistan, which is a constraint to new start-up formation.⁵⁷ In a growing start-up ecosystem, young firms in need of angel or pre-seed investments are generally greater in number than the relatively large firms that are looking to raise Series A funding and beyond, since several firms die in the process between ideation and relative maturity. In light of this, the fact that only 65 of total 270 deals were classified as angel round and pre-seed round in Pakistan between 2015 and 2022 indicates that even when start-ups saw heightened interest, investor focus on start-ups at ideation or initial stages was low compared to those that graduated out of angel phase to seed phase and beyond (Figure S1.14).

On the other hand, while seed stage funding is the highest in Pakistan, late-stage funding has not witnessed large number of deals thus far. Only two rounds, of US\$ 6.5 million in 2015 and US\$ 20 million in 2016, were classified as Series C.⁵⁸ Likewise, only seven

⁵⁷ Angels are high-net-worth individuals who usually invest in a start-up's early phase and may also play the role of mentor for founders and facilitator for subsequent rounds. Financing by angels is crucial as it positively impacts the growth trajectory and survival rate of the start-ups they invest in regardless of the external environment for entrepreneurs in a country. Source: J. Lerner, A. Schoar, S. Sokolinski and K. Wilson (2015). *The Globalization of Angel Investments: Evidence across Countries*. NBER Working Paper Series, W. P. No. 21808. Cambridge, Massachusetts: National Bureau of Economic Research.

⁵⁸ Source: Crunchbase, available at www.crunchbase.com/funding_round/zameen-com-series-c--c0e336e5 and www.crunchbase.com/organization/rozee-pk/company_financials accessed on January 22, 2023.

rounds are classified as Series B, with one in 2008 and two in every year since 2020.⁵⁹ A similar trend can be witnessed in the exit rate of start-ups in the country.⁶⁰ In the last five years, there have been eight exits in the ecosystem, with 6 of them in 2022.⁶¹ For comparison, Turkiye's ecosystem recorded 31 exits in 2022, and India, a larger ecosystem, recorded 240 mergers and acquisitions in 2022.⁶² However, as start-ups in the country mature, Pakistan's ecosystem may witness an increase in exits and late stage funding as well; this may increase confidence of local and international VCs to invest further.

Moreover, the start-up funding in Pakistan is led by foreign investors.⁶³ For instance, in 2021, local VC investments amounted to approximately 10 percent of the international VC investments during the year.⁶⁴ Soft information suggests that this is mainly because local investors, including high net worth individuals, family houses and VCs, do not have large fund size, neither do they have the risk appetite and the long term patient investment mindset that is characteristic feature of investments in start-ups.⁶⁵ The number of family investment

offices by local business groups is very low in Pakistan; for instance, in India, there are 2600 family offices while in Pakistan, less than 1 percent of that. In addition, the number of impact investors in the country are also very few, which presents a big challenge for social enterprise and impact startups to raise capital since.⁶⁶

To improve financing conditions in the country, a host of measures may be considered. These include the introduction of bank lending based on Intellectual Property Rights, cash-flows, or other alternative means of collateral such as reputational collateral based on credit scores for technology firms, particularly software-oriented firms.⁶⁷ To this end, enabling legislation and regulations may also be introduced for technology firms. For instance, Italy introduced Start-up Act in 2012, which offered tax incentives for equity investors, fundraising through equity crowdfunding campaign, and public guarantee on loans to start-ups provided by financial institutions. Similarly, under Senegal's Start-up Act in 2019, the

⁵⁹ Source: Data Darbar

⁶⁰ A start-up exit refers to the sale of partial or full stake by founder and early investors; exit transactions usually happen after several rounds of funding and may take the shape of mergers, acquisitions, or listing at the stock market. An exit in start-up ecosystem is seen as a sign of success of a firm whose previously untested business idea has finally been validated by the market.

⁶¹ Magnitt (2023). *Venture Investment Report. Emerging Venture Markets Report*. Dubai: Magnitt

⁶² Inc42 (2022). *Indian Tech Start-up Funding Report 2022*. New Delhi: Inc42.

⁶³ SECP (2022). *A Diagnostic Review of Pakistan's Private Funds Industry*. Islamabad: SECP

⁶⁴ Invest2innovate (2021). *Pakistan Start-up Ecosystem Report 2021*. Islamabad: i2i

⁶⁵ McKinsey & Company (2019). *Starting up: Unlocking Entrepreneurship in Pakistan*. New York: McKinsey & Company

⁶⁶ Ignite (2023), Study for Assessment of Pakistan's Startup Ecosystem

⁶⁷ Source: Ignite - National Technology Fund, Policy Recommendations for Promotion of Start-ups in Pakistan; Special Section - *Private Credit Bureaus in Pakistan - Enhancing Credit Penetration by Addressing Information Asymmetries* in Third Quarterly Report of the Board of Directors of the State Bank of Pakistan on the State of the Economy for the Year 2020-21.

government guarantee on loans are provided to start-ups by financial institutions.⁶⁸

The stock market may also have to be developed to facilitate exits and late-stage funding. While raising capital through the stock market is not a natural route for tech start-ups in the country, neither for funding nor exit, as it may not offer the same valuation level as venture funding, the Growth Enterprise Market (GEM) Board of Pakistan Stock Exchange (PSX) offers a potential opportunity for relatively mature software exporting companies and other start-ups.⁶⁹

To this end, the MOU between PSX and Pakistan Software Export Board (PSEB) to mutually facilitate the listing of up to 40 IT

and IT-enabled firms at the GEM Board by providing financial and technical assistance for listing is a promising development.⁷⁰ In addition to the GEM, a venture exchange may be created as a venture capital market place for over the counter trading of unlisted shares of emerging and innovative companies.

Fintech as an Enabler of Digitalisation

Technology-led advances and innovation in financial services (fintech) is transforming the financial ecosystem in different ways. It is contributing to increase in financial inclusion and economic growth as well as narrowing the digital access gaps. This is done by unbundling of financial services, increased customization of services, lowering the cost of services, and reduction in

Payment Systems

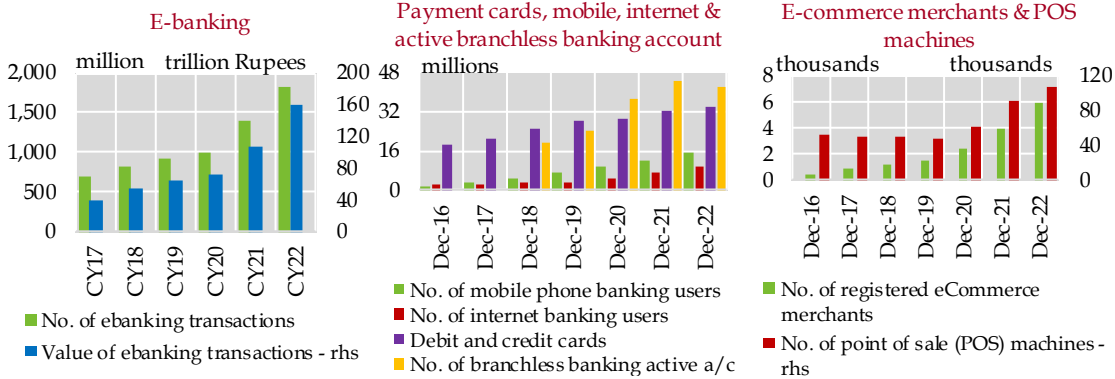


Figure S1.15

Source: Easy Data, State Bank of Pakistan

⁶⁸ A. A. Ghanghro (2020). Legal Framework for Start-ups in Pakistan. Islamabad: Karandaaz

⁶⁹ For instance, the average funding raised in 37 IPOs between FY15-22 was approximately US\$ 14.7 million, compared to an average of US\$ 32.9 million raised in the six Series B rounds in 2015-2022. Source: SECP 2021. *Annual Report 2021*. Islamabad: SECP; SECP 2022. *Annual Report 2022*. Islamabad: SECP; and Data Darbar.

⁷⁰ Pakistan Stock Exchange (www.psx.com.pk/psx/files/?file=162113-1.pdf, accessed on February 17, 2022.)

information asymmetries.⁷¹ In addition, fintechs' role in enabling payments for other start-ups- such as e-commerce and e-health companies- implies that fintechs have an essential role in fostering the digitalisation of the economy.

In Pakistan, digital payments have gained traction in recent years with improvements in payment infrastructure. The number of e-banking transactions nearly doubled between CY17 and CY21. The number of branchless banking active accounts have also outpaced total debit and credit cards, which shows the potential of technology in fast tracking financial inclusion (**Figure S1.15**).⁷²

While Covid-induced restrictions amid growing internet penetration led to increased use of internet and digital payments for various activities, a host of policy efforts already had been driving these trends prior to Covid. These include National Payment Systems Strategy for digital payments, Branchless Banking Regulations, Rules for Payment System Operators and Payment Service Providers, Regulations for Mobile

Banking Interoperability, and more recently, Regulations for Electronic Money Institutions (EMI) through which the SBP provided a framework for non-banking entities to offer digital payment instruments like wallets and contactless payment.⁷³ The SBP also introduced RAAST, an instant payment gateway, and Licensing and Regulatory Framework for Digital Banks in Pakistan⁷⁴, under which NOCs to five applicants have been issued.⁷⁵

Despite this growth, there is substantial room for fintech development both in terms of breadth and depth. For instance, Pakistan is far behind peer economies when it comes to using mobile phone or the internet to check account balances, which is a basic service. The overall account ownership as well as mobile money account ownership is also low compared to regional averages and income groups (**Figure S1.16**). Pakistan's low rank, 116 out of 152 nations, in UNCTAD's Business-to-Consumer E-commerce Index, 2020, also points in the same direction.⁷⁶ This is in part due to relatively high cost of internet connectivity

⁷¹ Y. W. Tok and D. Heng (2022). *Fintech: Financial Inclusion or Exclusion?* IMF Working Paper no. WP/2022/080. Washington D.C.: IMF; T. Beck (2020). *Fintech and Financial Inclusion: Opportunities and Pitfalls*. ADBI Working Paper 1165. Tokyo: Asian Development Bank Institute.; E. Feyen, J. Frost, L. Gambacorta, H. Natarajan and M. Saal (2021). *Fintech and the Digital Transformation of Financial Services: Implications for Market Structure and Public Policy* BIS Papers No 117; X. Zhang, Y. Tan, Z. Hu, C. Wang, G. Wan (2020). "The Trickle-down Effect of Fintech Development: From the Perspective of Urbanization" *China & World Economy* Vol. 28, Issue 1, pages 23-40.

⁷² Data for Mar-22 is provisional. Source: SBP Easy Data

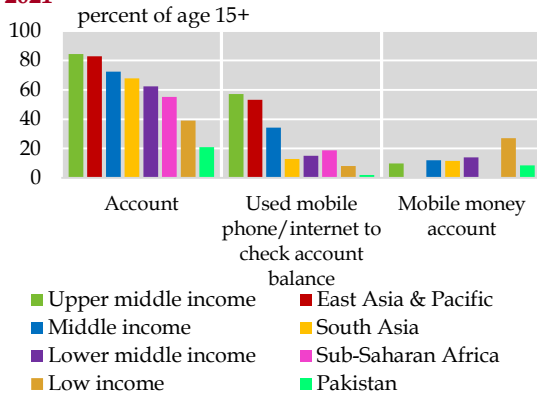
⁷³ SBP (www.sbp.org.pk/ps/PDF/NPSS.pdf; www.sbp.org.pk/bprd/2019/C10-Branchless-Banking-Regulations.pdf; www.sbp.org.pk/psd/2014/C3-Annex.pdf; www.sbp.org.pk/bprd/2016/C3-Annex-A.pdf; www.sbp.org.pk/psd/2019/C1-Annex-A.pdf, [accessed on March 24, 2023])

⁷⁴ SBP (www.sbp.org.pk/bprd/2008/annex_c2.pdf); (www.sbp.org.pk/psd/2014/C3-Annex.pdf); (www.sbp.org.pk/bprd/2016/C3-Annex-A.pdf); (www.sbp.org.pk/PS/PDF/List-of-EMIs.pdf); (www.sbp.org.pk/dfs/Digital-Bank-Regulatory.html) accessed on February 20, 2023

⁷⁵ Source State Bank of Pakistan (www.sbp.org.pk/press/2023/Pr1-13-Jan-2023.pdf)

⁷⁶ For details, see www.unctad.org/system/files/official-document/tn_unctad_ict4d17_en.pdf, accessed on March 21, 2023.

Selected Indicators From Findex - Figure S1.16 2021



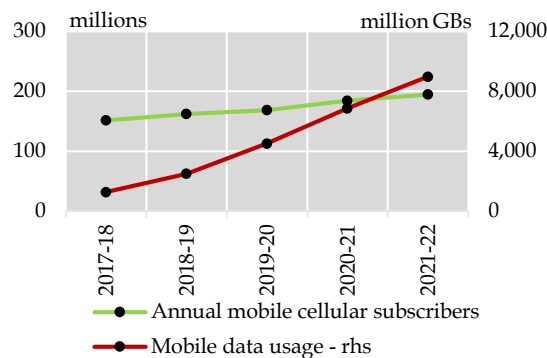
Source: The Global Findex Database, World Bank

and affordability of mobile devices.⁷⁷ Moreover, on the demand side, financial literacy is a significant challenge, with only 14.3 percent of the country's adult population considered financially literate.⁷⁸

On the supply side, there is a limited supply of skilled human resources who understand technology and finance to the degree that they can create innovative solutions, particularly targeting the financially excluded segments.⁷⁹ An underdeveloped credit reporting system, marked by incomplete and insufficient pool of credit information available with the credit bureaus, is also a stumbling block in this regard.⁸⁰

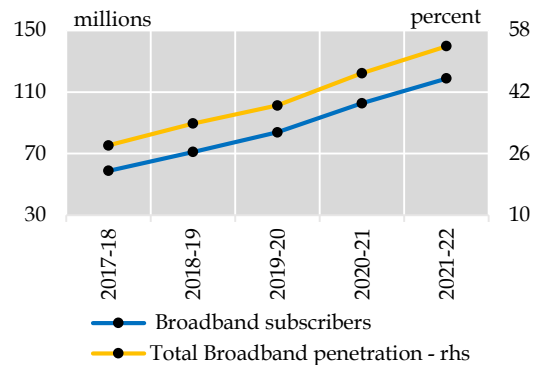
From the perspective of depth, the funding trend suggests that the country's fintech industry is mainly concentrated in payments, and credit and financing. Relatively few startups are operating in the field of insurance, investment and savings, and other facets of financial sector development where

Mobile Cellular Subscribers and Mobile Data Usage Figure S1.17a



Source: Pakistan Telecommunication Authority

Total Broadband Subscribers and Penetration Rate Figure S1.17b



⁷⁷ I. Khan and K. H. Jaffar (2021). *Searching for the Binding Constraint to Digital Financial Inclusion in Pakistan: A Decision Tree Approach*. CGD Policy Paper 218. Washington, DC: Center for Global Development.

⁷⁸ M. Termezy and H. Razi (2021). *Fintech Ecosystem of Pakistan, Landscape Study*. Islamabad: Karandaaz Pakistan

⁷⁹ Ibid

⁸⁰ Special Section: Private Credit Bureaus in Pakistan - Enhancing Credit Penetration by Addressing Information Asymmetries in the State of Pakistan's Economy - *Third Quarterly Report 2020-21*

large and swift improvements are needed in Pakistan.

To advance the fintech industry, it is important to encourage tech-based financial literacy initiatives tailored for different segments of society. For instance, under National Financial Literacy Program for Youth, an e-learning game, PomPak, was launched focused on children and youth.⁸¹ Further, digitisation of civil registries; development of credit reporting systems, fintech-focused courses and university programs; and availability of enabling technology factors, such as cloud storage and computing, cyber security mechanisms and interoperability, are also needed to bring about digital transformation in the country.

Digital Connectivity and Affordability

Pakistan has made considerable progress in connectivity indicators in the past five years. Mobile cellular subscription has increased from approximately 152 million to 195 million between FY18 and FY22, whereas total broadband subscribers increased at CAGR of 15.1 percent, with total broadband penetration reaching 54 percent in FY22. This translated into increased user data consumption, with a CAGR of 48 percent during the period (**Figures S1.17a & S1.17b**).

This growth has had positive implications for digitalisation of economy as the use of internet directly impacts the addressable market for tech start-ups. For instance, a tech

start-up in the education or health sector would generally reach the final user and receive payments for their service digitally, all of which are enabled by the ICT infrastructure. Likewise, better access to affordable ICT infrastructure also enables IT services exports.

However, despite these developments, Pakistan's digital connectivity indicators still remains rather low – both in terms of access and usage – which is a constraint to the prospects of sustained growth in IT, and IT-enabled exports as well as digitalisation of domestic economy (**Figure S1.18**). This in part is because the cost of mobile devices, as well as fixed and mobile broadband prices are noticeably high in Pakistan (**Figures S1.19 & S1.20**).

Moreover, the speed of internet also plays a pivotal role in digital connectivity as internet speed sets the parameters of the effectiveness and efficiency of internet use. According to 2022 Netflix ISP Index, Pakistan's internet speed is 2.8 Mbps compared to global average of 3.5 Mbps and lower middle income countries average of 3.3 Mbps.⁸²

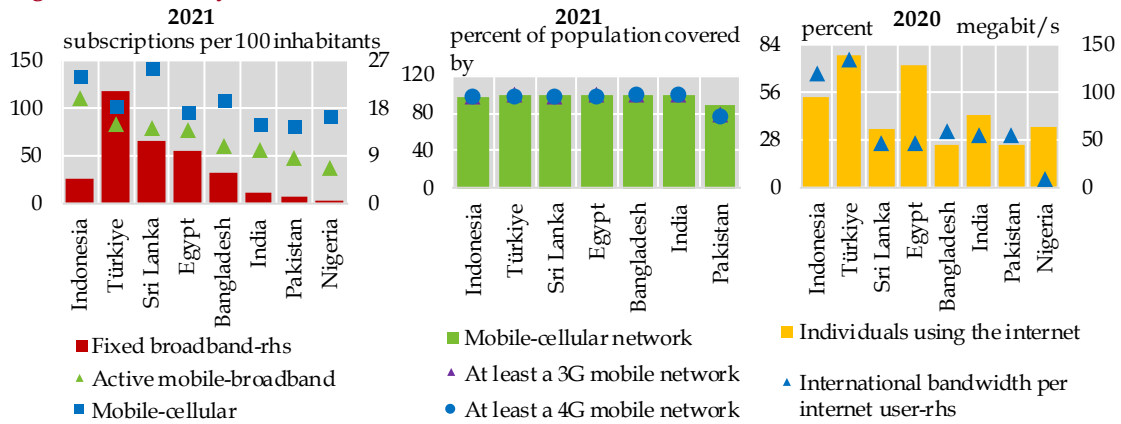
The upcoming telecom infrastructure sharing framework proposed by the Ministry of Information Technology & Telecommunication (MoITT) offers an opportunity to lower rollout costs and boost network coverage and performance. However, since affordable mobile devices and services holds the key to increasing

⁸¹ National Financial Literacy Program for Youth is implemented by the State Bank of Pakistan and National Institute of Banking and Finance Source: www.nflpy.pk/pompak/ accessed on February 21, 2023.

⁸² World Bank's classification has 54 countries in the lower middle income countries (LMIC) category. Due to data unavailability of internet speed for all countries in Netflix ISP index, the average of 8 LMICs has been taken.

Digital Connectivity Indicators for Selected Countries

Figure S1.18



Source: International Telecommunication Union

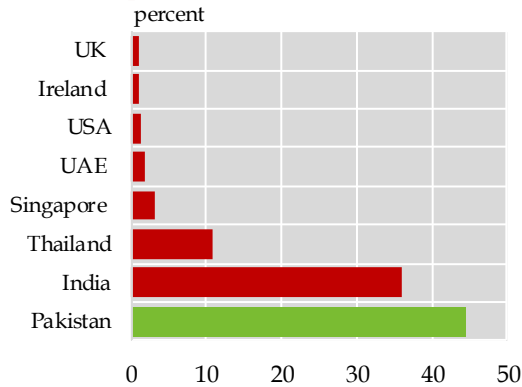
digital connectivity, fiscal incentives need to be considered.⁸³ For instance, in Kenya, following the exemption of taxes on mobile phones and mobile services, mobile phone purchases increased by 200 percent and teledensity more-than-trebled to 70 percent in 2011 in a span of two years.⁸⁴ Similarly,

reduction in import tariff has been one of the key drivers of increased penetration of ICT in technology clusters of India.⁸⁵

The opportunity to leapfrog that ICT offers is not only by way of producing ICT hardware but rather the software as well as the

Smartphone Price as a Percent of GNI Per Capita 2022

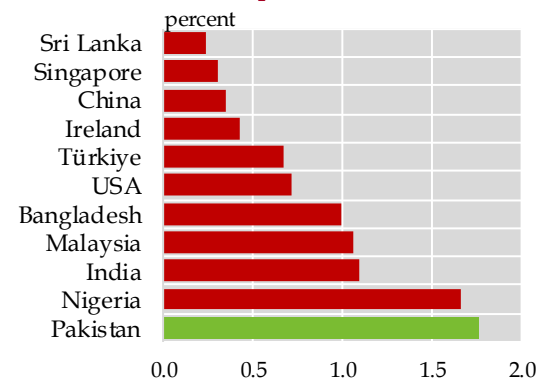
Figure S1.19



Source: Alliance for Affordable Internet

Mobile Cellular Basket as Percent of GNI Per Capita - 2021

Figure S1.20



Source: International Telecommunication Union

⁸³ MoITT (2023). Telecom Infrastructure Sharing Framework. Draft. Islamabad: MoITT

⁸⁴ The Groupe Speciale Mobile Association Report 2020. The Mobile Economy Asia Pacific 2020. London: GSMA

⁸⁵ R. Heeks and B. Nicholson (2011). Software export success factors and strategies in "follower" nations, Competition & Change Journal, Vol. 8 No. 3, pp. 267-303

ubiquitous usage of ICT hardware and software in all facets of economy.⁸⁶ To this affect, Pakistan's accession to the international IT Agreement that entails across the board drop in tariff, taxes and other duties may be considered in the interest of large positive spillover of technology on the economy.

Digital Literacy

Digital literacy refers to general and basic digital skills that all citizens need to have to adapt to digital transformation of economic and social life, and form addressable markets for digital products, services and content. This is regardless of an individual's general literacy level and employment in technology or non-technology sector. Rapid digital innovations are pushing the boundary of digital literacy beyond basic skills. Indeed, over the course of years, the evolution and increasing penetration of frontier technologies, such as AI, will reshape personal and professional life and require constant improvements in digital literacy.⁸⁷

These exigencies have influenced developed and developing countries to not only

develop frameworks to improve digital competence of their citizens but also periodically measure it to identify gaps in digital skills of citizens and accordingly tailor digital literacy programs. One such example is European Countries' Digital Competence Framework for Citizens to support their plan of reaching a minimum 80 percent population with basic digital skills by 2030. In recognition of the importance of digital literacy of wider population, the EU's Digital Economy and Society Index tracks citizens' progress on a high bar across five diverse areas: (a) information and data literacy (b) communication and collaboration (c) digital content creation (d) cyber safety and (e) problem solving.⁸⁸

The level of digital literacy of a population depends on economic development, policy priorities and the nature of a particular business ecosystem. Pakistan, where general literacy level is already very low, also fares considerably low in digital literacy in relation to other economies even in the much less diverse and easy standards tracked by International Telecommunication Union (ITU) (**Figure S1.21**).⁸⁹ Only 37 percent of the

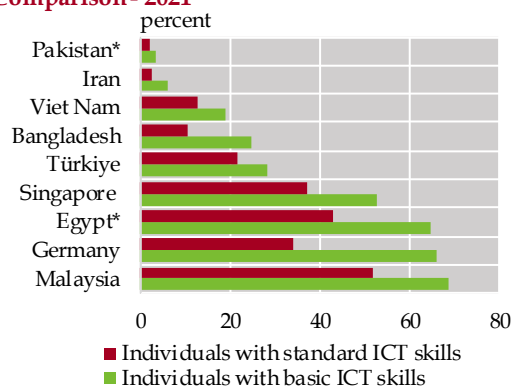
⁸⁶ S.J. Ezell and J. Wu (2017). *Assessing the Benefits of Full ITA Participation for Indonesia, Laos, Sri Lanka, and Vietnam*, The Information Technology and Innovation Foundation, Washington D.C.: ITIF

⁸⁷ World Bank (2022). "South Asia's Digital Opportunity: Accelerating Growth Transforming Lives", Washington D.C: World Bank; C. Dahlman, S. Mealy and M. Wermelinger (2016). *Harnessing the digital economy for developing countries*, Working Paper No. 334, Paris: OECD; A. M. Oyelakin (2022). *Increased Digital Literacy Skills as a Catalyst for Driving Nigerian Digital Economy- An Overview*, Malaysian Journal of Applied Sciences, vol.7(3)

⁸⁸ European Commission, DigComp 2.2 2022. "The Digital Competence Framework for Citizen", (website: www.schooleducationgateway.eu/en/pub/resources/publications/digcomp-22.htm); Digital Economy and Society Index 2022. www.digital-strategy.ec.europa.eu/en/policies/desi; G20, Priority Issue 2, 2022. "Toolkit-for-Measuring-Digital-Skills-and-Digital-Literacy"

⁸⁹ The ITU measures digital literacy on basic and standard ICT skills on the basis of different computer based activities. Basic Skills include copying or moving a file, folder or information within a document, sending e-mails with attached files, and transferring files between devices. Standard Skills include using basic arithmetic formula in a spreadsheet; connecting and installing new devices; using presentation software; and finding, downloading, installing software.

Digital Literacy: Cross Country Comparison - 2021 **Figure S1.21**



* 2020 data

Source: International Telecommunication Union

population reports being aware of the internet, and 87 percent of those who know about e-commerce platforms do not use them to buy goods or services.⁹⁰ Moreover, while Pakistan Bureau of Statistics has begun tracking ICT skill indicators, mostly based on ITU's basic and standard skills, the country does not have an official framework for periodically assessing skills in wide ranging cross-cutting themes that evolving pace of technologies entail.⁹¹

To ensure a digitally literate workforce that can absorb the technologies for digital transformation, Pakistan needs to develop a framework to target growth in digital literacy in both educated and uneducated segments of population. Since basic education is the foundation for technical and digital literacy, both segments may need differently tailored strategies. At the same time, efforts need to

be made to ensure that those currently in schools meet desired level of digital literacy by the time they graduate.

In this context, lessons may also be learnt from international best practices by increasing the standard of digital literacy beyond basic skills, and ensure frequent monitoring to correspond to the fast changing technological environment. For instance, Singapore's National Digital Literacy Program is built around four competencies: (a) gathering and evaluating information safely and effectively); (b) interpreting and analyzing data, and solving problems; (c) using digital means, knowledge and skills, and (d) producing digital products, and collaborating online. Similarly, Europe's Digital Decade program sets targets for digital skills at various stages and segments of the economy and society with an annual cooperation cycle based on (i) shared and transparent monitoring system, (ii) annual report on the state of Digital Decade and (iii) adjusting Digital Decade roadmap every two years.⁹²

E-government

E-government, which refers to ICT usage by the government, is essential to digital transformation. The development outcomes of e-government are not the same for every country, and benefits to vulnerable communities are uneven. However, in general, ICT usage helps governments

⁹⁰ UNESCO (2018). "A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2", Information paper No. 51, Paris: UNESCO; World Bank report (2019). Pakistan: Skills Assessment for Economic Growth, Washington D.C.:World Bank.

⁹¹ Pakistan Bureau of Statistics, Social and Living Standards Measurement Survey (PSLM) 2019-20.

⁹² Source: www.moe.gov.sg/microsites/cos2020/refreshing-our-curriculum/strengthen-digital-literacy.html; www.commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en#the-path-to-the-digital-decade

become more efficient, tailor better policies, and enhance public service delivery. Moreover, since public sector is largest buyer of ICT goods and services, e-government helps create a demand for services offered by local software firms and tech start-ups.⁹³

Pakistan has taken multiple initiatives towards e-government. These include development of e-office to help government ministries become efficient and paperless, and the launch of citizen portal that allows the public to register complaints and provide feedback on government performance. Similarly, to foster education via distance learning in the time of Covid-19, the Ministry of Federal Education introduced e-Taleem, a distance learning platform in collaboration with various organisations.⁹⁴

However, despite these initiatives, the government's adoption of technology is much lower compared to peer economies.⁹⁵ Pakistan is ranked 150th out of 193 countries in the UN's E-Government Development

Index (EGDI) 2022, compared to India and Bangladesh that are ranked 105th and 111th respectively.⁹⁶ Although the country fares relatively better in UN's e-Participation index helped in part by the citizen's portal, it has substantial room for improvement in terms of overall maturity of government's ICT usage across four key areas: core government services, public service delivery, digital citizen engagement, and government as tech enabler (**Figure S1.22**).

Soft information complements these findings. For instance, while e-office and digitisation of government records have been rolled out, their implementation and usage is not widespread. Given that public sector's usage of ICT has a positive spillover on digital absorption by citizens, federal and provincial governments need to scale up their ICT usage in all facets of governance, where efforts need to be made to reduce digital divide to ensure that e-government does not create disparities.⁹⁷ In addition, the country's public procurement rules, which

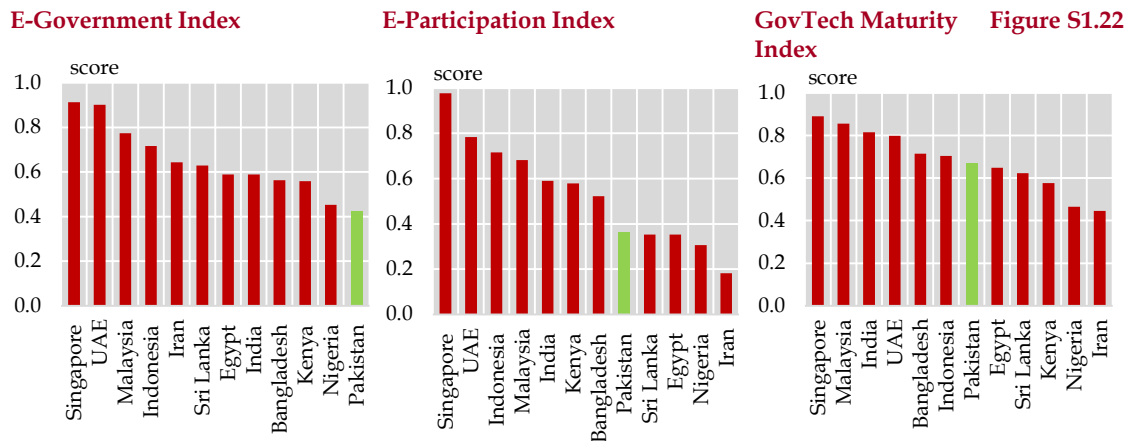
⁹³ World Bank (available at www.worldbank.org/en/topic/digitaldevelopment/brief/e-government, accessed on February 7, 2023; United Nations (2022). *E-Government Survey 2022, the Future of Digital Government*. New York: United Nations Department of Economic and Social Affairs; J. Lee (2016). *Digital Government Impacts in the Republic of Korea: Lessons and Recommendations for Developing Countries*. In T. G. Karippacheril, S. Kim, R. P. Beschel Jr., C. Choi (eds.). *Bringing Government into the 21st Century: The Korean Digital Governance Experience*. Directions in Development. Washington D.C.: World Bank; H. M. Zangana, N. E. Tawfiq, Dr. M. Omar (2020). "Advantages and Challenges of E-Government in Turkey." *International Journal of Creative Research Thoughts* Volume 9 Issue 11 A. Imran and S. Gregor (2005). *Strategies for ICT Use in the Public Sector in the Least Developed Countries: A Cross-Country Analysis*. *ACIS 2005 Proceedings - 16th Australasian Conference on Information Systems*.

⁹⁴ Source: National Information Technology Board (www.nitb.gov.pk/ProjectDetail/MzUyZTIQwNDktZDYwMi00OTJkLTlmMGQtMTQzZmYxN2U2MWNk accessed on February 13, 2022.); E-Taleem (www.etaleem.gov.pk/ accessed on February 13, 2022.); NITB (www.nitb.gov.pk/AllProjects accessed on February 13, 2022.)

⁹⁵ World Bank (2020). "Pakistan: Digital Economy Enhancement Project." *Project Information Document* Report No: PIDC29750. Washington D.C.: World Bank

⁹⁶ EGDI is composite of three sub-indices namely: online service delivery, telecommunication and human capital. Source: United Nations Department of Economic and Social Affairs

⁹⁷ World Bank (2020). "Pakistan: Digital Economy Enhancement Project." *Project Information Document* Report No: PIDC29750. Washington D.C.: World Bank



Source: United Nations Department of Economic and Social Affairs; and World Bank

currently favour established and large IT firms, need to be revised to promote domestic IT industry typically comprising small and young firms.⁹⁸

While relaxing public procurement regulations for small and less established IT firms are a difficult proposition because of risks of nepotism, poor quality of public services, and ineffective utilization of public funds, there is an increasing realization that public procurement can be a useful mechanism to incentivize local firms. This helps domestic IT firms to grow and eventually become capable to compete in international markets.

For instance, Singapore's government encourages local ICT firms to develop solutions for different government bodies, and promotes successful firms through

government-to-government partnerships. Some of the largest Singaporean IT exporting firms have grown through such initiatives.⁹⁹ Sri Lanka's ICT Agency also helps the development of local ICT firms by promoting joint ventures between foreign and local firms and giving such JVs higher points in public procurement criteria.¹⁰⁰ Similar initiatives may be considered in Pakistan where one solution could be to mandate or incentivize IT contractors to sub-contract a certain percentage of work to small domestic IT service firms that do not currently meet public procurement criteria on their own.

Key Cross-cutting Technology Enablers

Digital transformation of both public and private sectors needs a set of cross-cutting technologies and ancillary frameworks that serves as a foundation for growth in both software and start-ups led digitalisation.

⁹⁸ World Bank Report. Pakistan Economic Policy for Export Competitiveness Digital Pakistan: A Business and Trade Assessment, Washington D.C.: World Bank

⁹⁹ V. Grant (2018). Critical Infrastructure Public-Private Partnerships: When is the Responsibility for Leadership Exchanged?, Security Challenges Journal, Vol. 14, Issue 1 , pp. 40-52

¹⁰⁰ UNCTAD (2013). *Promoting Local IT Sector Development Through Public Procurement*. Geneva: United Nations Conference on Trade and Development

Some of the most important ones include cloud storage and computing; cybersecurity; databases and interoperability.

A digital economy produces and thrives on large datasets whose storage and usage requires various types of cloud services, such as cloud storage and computing.¹⁰¹ The inevitability of the use of cloud technology in future can be gauged from the fact that, by 2025, more than 51 per cent of ICT spending within the area of application software and infrastructure market along with business processing services will shift to the public cloud.¹⁰² However, globally, particularly in developing countries like Pakistan, several barriers have decelerated the pace of cloud migration and adoption. These include weak or unreliable internet connectivity; weak or absence of regulations and standardization, stringent data localization rules, and lack of professionals with expertise on cloud-based security solutions etc.¹⁰³

In Pakistan, the first government national data center – that offers various services including cloud – was established in 2016.¹⁰⁴ This was considerably late compared to India and Bangladesh which had launched their first national data centers in the year 2008 and 2009 respectively.¹⁰⁵ However, in recognition of cloud's importance, the MoITT's 2018 Digital Pakistan Policy – that envisions accelerated digitilisation in the country – gave a policy direction to promote cloud infrastructure and its associated services. Accordingly, in 2022 it launched Pakistan Cloud First Policy (PCFP) that aims to guide and empower organisations, including public sector enterprises, to transition to cloud-based solutions. Prior to the launch of PCFP, SBP had also allowed banking industry to use cloud based solutions for non-core banking operations, which have recently been expanded now to use cloud based solutions for core operational data as well.¹⁰⁶ Securities Exchange Commission of Pakistan (SECP) also issued draft Cloud Adoption Guidelines

¹⁰¹ Cloud storage refers to digital data storage on servers at off-site locations while cloud computing refers to the delivery of different services through the internet. The servers are maintained by a third-party service providers.

¹⁰² Source: GARTNER. (website: www.gartner.com/en/newsroom/press-releases/2022-02-09-gartner-says-more-than-half-of-enterprise-it-spending accessed on January 18, 2023)

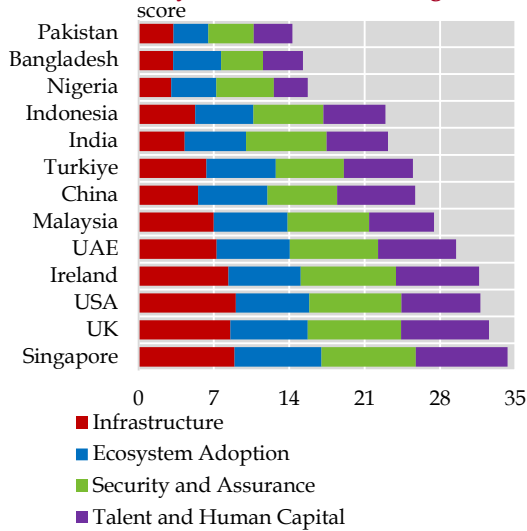
¹⁰³ S.T. Koudah, B.E. Popovsky and A. Tsete (2014). *Barriers to Government Cloud Adoption*, International Journal of Managing Information Technology, Vol.6, No.; T. Vemu and P. Sravya (2019). *A Study on Cloud Migration Models and Security Issues in Cloud Migration*, Department of Computer Science and Engineering, SSRN Electronic Journal, Vol. 6, Issue 4; Cloud Insights survey, Longitude Research, (2017). Oracle Cloud Platform. *Move Workloads to the Cloud*; Accenture Report. *Sky high hopes: Navigating the barriers to maximizing cloud value*. Dublin: Ireland

¹⁰⁴ Source: National Telecom Center website (www.ntc.net.pk/orderbooking/home.asp accessed on January 25, 2023)

¹⁰⁵ India National Informatics centre website. (www.nic.in/servicecontents/data-centre/#:~:text=The%20National%20Data%20Centres%20form,and%20NDC%20Bhubaneshwar%20in%202018. accessed on January 26, 2023); GovTech Maturity Index Update 2022. Trends in Public Sector Digital Transformation, The International Bank for Reconstruction and Development: Washington D.C

¹⁰⁶ SBP Circular No. 4 of 2020. (www.sbp.org.pk/bprd/2020/C4.htm); SBP Circular No. 1 of 2023 (www.sbp.org.pk/bprd/2023/C1.htm)

The Cloud Ecosystem Index - 2022 Figure S1.23



Source: Massachusetts Institute of Technology Technology Review

in 2021 for its regulated sectors;¹⁰⁷ however those guidelines have not been finalized as of yet.

The potential of cloud adoption in public sector is immense as federal government alone has more than 40 divisions and 600 affiliated departments.¹⁰⁸ However, successful implementation of PCFP in public hinges on coordinated efforts from different government departments; for instance, ensuring cloud usage in public sector development programme (PSDP) and in public procurement.¹⁰⁹ This is an area that presently requires a detailed action plan for migration and continuous implementation.

¹⁰⁷ SECP website: (www.secp.gov.pk/document/draft-cloud-adoption-guidelines-for-incorporated-companies/?wpdmdl=42956&refresh=63d22f61ced1674719073 accessed on January 26, 2023)

¹⁰⁸ Government of Pakistan website. (www.pakistan.gov.pk/ministries_divisions.html accessed on January 25, 2023)

¹⁰⁹ H. Fatima and N. Qazi (2022). *Untethering from Legacy Infrastructure: Pakistan's Cloud First Policy*, Centre for Digital Transformation, Islamabad: Tabadlab

¹¹⁰ World Bank (2020). *Pakistan: Digital Economy Enhancement Project (P174402)*, Project Information Document (PID), Concept Stage, Report No: PIDC29750 Washington D.C.: World Bank

Moreover, the role and responsibilities of each department also need to be clearly defined with regard to data residency, security protocols and certification accreditation to avoid ambiguity.¹¹⁰

Other areas that warrant attention for wider cloud adoption across public and private sector include improvements in cloud infrastructure, relevant human capital, as well as security, as evidenced by Pakistan's 73rd rank in global cloud ecosystem out of 76 countries evaluated by MIT Technology Review on four key metrics (Figure S1.23). To this end, one solution that may be considered, is attracting large foreign cloud operators to set up cloud operations in Pakistan. This may be done by allowing data centers to be set up as special technology zones where the government can provide or lease subsidized land and ensure electricity, high speed internet under the planned 5G rollout.

Cybersecurity poses a key risk to the prospects of digitalisation as, breaches of cybersecurity, privacy and data sovereignty are a challenge for storage and processing infrastructure. It also risks loss of digital identity, financial losses, private personal records and several other facets of digital existence. This is why regulators see cybersecurity as among the top risks to digitalisation, where fintech and other

financial organisations rate cybersecurity risks at par with liquidity risks.

To this end, a Prevention of Electronic Crimes Act (PECA) was passed in 2016 followed by the passing of Data Protection Bill (DPB) in 2021 to help ensure the protection and confidentiality of online data, upholding privacy of the citizens. A National Cybersecurity Policy (NCP) was also announced in 2021 aimed at ensuring security, confidentiality, integrity, and availability of digital assets across the public and private sector.

Moreover, in line with global best practices, the MoITT has prepared draft rules for Computer Emergency Readiness Team (CERT), an important part of the overall capacity to tackle cyber incidents. The rules are in the process of finalization; once they are finalized and approved, all government authorities will form CERT for their regulated sectors and assist the private sector.¹¹¹ For instance, the PTA has launched its CERT to protect telecom sector.¹¹² A National Cybersecurity Act is also currently being reviewed by the MoITT’s legal wing; it is expected to take up to a year for eventual approval from the Parliament, where PECA 2016 is also being reviewed for possible amendments to keep pace with the fast evolving digital world.¹¹³

While these are promising developments, Pakistan still lags behind its peers in Global Cyber Security Index 2020 that assesses

Global Cyber Security Index- 2020 **Table S1.5**

	Score	Rank
USA	100.0	1
UK	99.5	2
Singapore	98.5	4
India	97.5	10
Turkiye	97.5	11
Indonesia	94.9	24
Vietnam	94.6	25
Thailand	86.5	44
Bangladesh	81.3	53
Iran	81.1	54
Philippines	77.0	61
Pakistan	64.9	79
Sri Lanka	58.7	83

*GCSI calculated on basis of legal, technical, organisational, capacity building and cooperative measures

Source: International Telecommunication Union

cybersecurity on five aspects: legal; technical; organisational; capacity building and cooperation measures. The recent passing of DPB and NCP can be expected to improve Pakistan’s global rankings in legal component of cybersecurity index henceforth. However, considering that cybersecurity breaches also cause loss of public trust leading to setbacks on the path to digitalisation, the country’s substantially low scores suggest that cybersecurity efforts need to be mainstreamed across various aspects (**Table S1.5**). These include the need for cybersecurity audit and compliance; national curriculum for basic cybersecurity literacy and skills; human resource development programs for technical staffing in public and private sector; and special courts related to cybersecurity.¹¹⁴

¹¹¹ As per correspondence with officials of MoITT

¹¹² Pakistan Telecommunication Authority website (www.pta.gov.pk/en/media-center/single-media/pta-launches-cert-portal-for-telecom-industry--050421 accessed on March 16, 2023)

¹¹³ As per correspondence with officials of MoITT

¹¹⁴ Source: International Telecommunication Union, Global Cybersecurity Index Report 2020

Data registries and interoperability, which refers to the ability of digital systems to exchange and use information, is another important technology enabler. One example of it is digital identity, such as Nadra's national ID systems. Other examples of it include cloud-based health, police, court, taxation and land records and utilities payment history. These are not only needed for a thriving fintech industry, such as for their KYCs and credit scores, but also for other industries such as- hospitals and better public policymaking especially during emergencies. Though the country has a relatively strong national ID system and payment system respectively, the lack of interoperability frameworks and mechanisms acts as a barrier to public and private sector's capacity to exchange data securely and seamlessly and thus, hampers the transition towards e-documentation, e-signatures and e-invoicing.

Policy and Institutional Support

To fast track digitalisation, governments, especially of developing economies eyeing the opportunity of technology-led leapfrogging, need to provide policy and

institutional support to encourage innovation policies, infrastructure, and ensure appropriate technological standards and safety.¹¹⁵ In Pakistan, the government has taken a host of policy and institutional initiatives to support the many facets of IT ecosystem from the perspective of promoting IT exports and digitalisation of economy. These include the setting up of National Incubation Centre (NIC) in 2016; launch of Digital Pakistan Policy 2018; and the e-Commerce Policy 2019.

Similarly, SBP has also promoted digital payments and fintech in the country, with policy measures such as Regulations for Digital On-Boarding of Merchants.¹¹⁶ Recently, the SBP had further facilitated IT exporters by advised banks to mandatorily credit 35 percent of the exports proceeds into these exporters' special foreign currency account.¹¹⁷ SECP has provided Regulatory Sandbox to offer tailored regulatory conditions for testing new and innovative products and services at a limited scale to assess their viability.¹¹⁸ In addition, several policies and regulations are currently in draft stages; once approved, these are expected to further facilitate the sector (**Figure S1.24**).

¹¹⁵ UNCTAD (2018). *Leapfrogging: Look Before You Leap*. Policy Brief. Policy Brief No.71. Geneva: UNCTAD; K. Lee (2021). *Economics of Technological Leapfrogging*, in J. Lee, K. Lee, D. Meissner, S. Radošević, and N. S. Vonortas (eds.) *The Challenges of Technology and Economic Catch-up in Emerging Economies*. Oxford: Oxford University Press

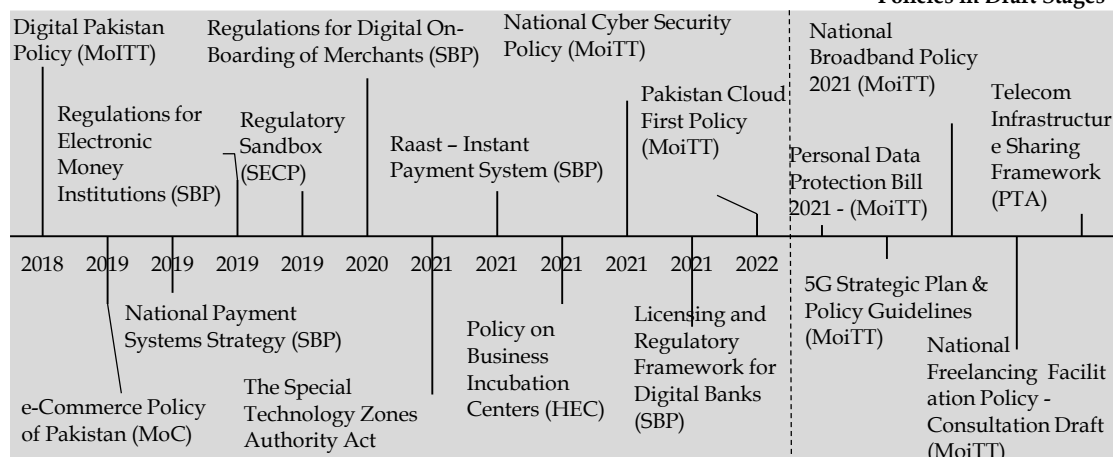
¹¹⁶ Source: SBP www.sbp.org.pk/bprd/2020/CL1-Annex-A.pdf [accessed on March 24, 2023]

¹¹⁷ Under Para 36, Chapter 12 of the Foreign Exchange Manual, exporters of services are allowed to retain 35 percent of their export proceeds in their special foreign currency accounts in Pakistan upon request to banks. In January 2023, SBP had made this facility mandatory for IT exporters and freelancers (wide EPD Circular Letter No. 2 of 2023), to further encourage them to bring their foreign exchange earnings into the country. However, these instructions are valid until March 31, 2023. These instructions will be reviewed in the light of incremental export performance by IT sector and realization of export proceeds thereof during this period. (www.sbp.org.pk/epd/2023/FECL2.htm)

¹¹⁸ Source: SECP (www.secp.gov.pk/regulatory-sandbox/what-is-regulatory-sandbox/ accessed on 27 November 2022)

Recent Regulatory and Policy Developments

Figure S1.24
Policies in Draft Stages



Note: This is not an exhaustive list of policies
Source: SBP, SECP, MoC, MoITT and National Assembly

However, there are at least four key areas that warrant attention from the perspective of government policy and institutional support. First, given the cross cutting nature of digitalisation across sectors, the degree of coordination and concerted efforts needed for digital transformation, requires highest government offices to be leading the digitalisation agenda across federal and provincial governments.

For instance, in Singapore, the Smart Nation and Digital Government Office, which prioritizes and promotes digital transformation in public and private sector, works directly under the Prime Minister's Office.¹¹⁹ In Kenya, a Digital Economy Implementation Secretariat is planned with membership from all key public and private sector stakeholders alongside an inter-ministerial framework to monitor

Indicative PSDP on Digitalisation* Table S1.6

	Allocated Amount (as percent of total PSDP spending)	No. of Projects (as percent of total PSDP projects)
FY19	0.7	4.5
FY20	2.2	5.6
FY21	1.7	5.4
FY22	2.7	7.3
FY23	2.3	7.1

* These are indicative allocations as formal estimates of actual PSDP spending on digitalisation are not available. These are based on the sum of all projects that explicitly relate to the following keywords: *cyber, digital (digitalisation, digitisation), data (for e.g. storage), AI, cloud, knowledge economy, computers and computing, mobiles and broadband, e-learning, smart projects*. These estimates do not include any allocated spending on digital components of projects that are not explicitly named as digital projects.

Source: SBP Staff Estimates based on MoPDSI

implementation throughout its various state departments and agencies.¹²⁰

Nigeria has also re-designated its Federal Ministry of Communications as the Federal

¹¹⁹ PM Office Singapore (www.pmo.gov.sg/About-Us, accessed on February 14, 2023.)

¹²⁰ Kenya Digital Economy Blueprint (www.ca.go.ke/wp-content/uploads/2019/05/Kenyas-Digital-Economy-Blueprint.pdf)

Ministry of Communications and Digital Economy with the mandate of development and implementation of Digital Economy Policy and Strategy across the country.¹²¹ Similarly, Malaysia has formed a National Digital Economy and 4th Industrial Revolution Council chaired by the country's prime minister to accelerate digitisation, accompanied by a strategic change management office which acts as a secretariat to the council to drive changes on the ground across the country.¹²²

Unlike these developing and emerging economies, digitalisation agenda in Pakistan is not being led by Prime Minister office; nor does it have a dedicated ministry or secretariat. While the MoITT has drafted the Digital Pakistan Policy, it does not have the mandate to institute and monitor implementation across the country.¹²³ The absence of a strong driving secretariat to steer and coordinate is evident from the fact that overlapping jurisdictions and lack of clarity at the local government level have constrained the deployment of fiber optic cables even in large cities. Moreover, whereas various digitalisation efforts by different government bodies are in isolation and lack the element of interoperability without policy frameworks for standardized data management.¹²⁴ Moreover, the agenda

of digital transformation also does not appear to be pronounced in public sector development spending (**Table S1.6**).

The second area that warrants attention relates to the alignment of sectoral policies with digitalisation agenda. In some cases, such as fintech and e-commerce, policies focusing on e-commerce, fintech and financial inclusion contributed to growth in these start-ups. However, in several other sectors, policies need to be formed or updated to facilitate digitalization. For instance, ride-sharing tech start-ups faced legal challenges in Punjab and Sindh because public transportation laws were not applicable on them.¹²⁵ Likewise, except for Sindh Telemedicine and Telehealth Act 2021 and the draft policy for telemedicine Pakistan, there is no e-health policy at the provincial or federal level to facilitate health tech start-ups. Similar policy and regulatory gaps need to be addressed in other sectors, including education where the involvement of ed-tech start-ups may go a long way in addressing the gaps in public schooling system.

Third, while the Special Technology Zones Authority aims to create technology parks, and private and public incubators also organize networking activities, there is a

¹²¹ Nigeria National Digital Economy Policy and Strategy (2020-2030) (www.ncc.gov.ng/docman-main/industry-statistics/policies-reports/883-national-digital-economy-policy-and-strategy/file)

¹²² Malaysia Digital Economy Blueprint (www.epu.gov.my/sites/default/files/2021-02/malaysia-digital-economy-blueprint.pdf)

¹²³ MoITT's role in digitalisation is only that of facilitator with a mandate to develop an action plan in consultation with relevant ministries and departments who have the lead role in implementation in their respective domains. Source: MoITT (2018). *Digital Pakistan Policy*. Islamabad: MoITT

¹²⁴ Project Information Document (PID) (2020). Pakistan: Digital Economy Enhancement Project (P174402). *Concept Stage, Report No. PIDC29750*. Washington, D.C. : World Bank Group

¹²⁵ Gulf News www.gulfnews.com/business/careem-uber-hope-for-legal-support-in-pakistan-1.1975263, accessed on February 15, 2023.

need to significantly improve the formation of technology clusters and platforms for interaction between stakeholders operating in the tech industry, especially in smaller cities. To this end, formation of sector specific incubators, development of exchange programmes among clusters and between start-ups and traditional industries will help in community building that is one of the key factors of success in growth of technology startups.¹²⁶

Fourth, while federal and provincial governments have started investing in hardware and software towards digitalisation of limited number of services, these efforts are being made in a siloed manner, leading to duplication of investments. The development of these parallel systems is costlier for governments and time consuming for individuals and businesses. Although some provincial civil registries are being automated, such as land records in Sindh and Punjab, digitalisation needs to be expanded to all registries and linked with National Database and Registration Authority (NADRA) whilst ensuring interoperability, security, single sign-on and other features of an efficient system integration.¹²⁷

S1.4 Final Remarks

Technological advancement offers developing economies an opportunity to leapfrog and catch up with the developed world faster than ever before. However,

timely adoption of digitalisation is needed to be at the forefront of technology. The pace of digital transformation and the ongoing fourth industrial revolution is much faster than earlier technologies, which took decades to develop and spread across countries. This means the cost for inaction or late action can be huge.

The recent growth in Pakistan's IT exports and start-ups deals may be seen as emerging signs of digitalisation. However, domestic market size of IT and software is insufficient to help the industry scale up; the firms in the sector are very small; and their exports lack market diversification. The start-up ecosystem is still very young and concentrated only in two sectors: fintech and e-commerce. For continued growth in these areas and to be amongst early adopters of digital transformation, if not leaders of innovative technologies, it is essential that individuals, federal, provincial and local governments, and businesses across sectors embrace latest technologies.

With software and start-up led digitalisation becoming a subject of policy attention around the world, the competition for IT exports and global VC funding for start-up is expected to increase in the years ahead. This further underscores the need to grow domestic demand for digitalisation in Pakistan.

The government, as one of the largest IT consumers, can generate demand by digitalizing its services and operations of the

¹²⁶ Ignite (2023). Study for Assessment of Pakistan's Startup Ecosystem

¹²⁷ World Bank (2022). *South Asia's Digital Opportunity: Accelerating Growth, Transforming Lives* Washington, D.C.: World Bank; World Bank (2023). *Pakistan: Digital Economy Enhancement Project. Project Information Document (P174402)*. Appraisal Stage, Report No: PIDA31211. Washington D.C.: World Bank; World Bank (2022). *South Asia's Digital Opportunity: Accelerating Growth, Transforming Lives* Washington, D.C.: World Bank.

public sector. This will have a two-pronged impact. First, it will bring efficiency in government's own operations, create facilitative business environment, and improve public services provided to citizens. Second, it will provide the opportunity for the typically small domestic IT firms to develop tech-based solutions for the government allowing them to scale up and professionalize before they can compete in international markets.

The appetite for technology by businesses, including SMEs, in the private sector and individuals at large has to increase to expand the addressable market for start-ups and further digital transformation. One of the major hurdles limiting the mass proliferation of IT relates to its affordability and availability, especially for the rural population. To remedy that, the duties and taxes on internet and the devices used to access it need to be reduced. Further, the development of absorptive capacity of the population is crucial. This can be achieved by enhancing digital literacy via focused initiatives, including through social media platforms, and making digital education a fundamental part of the curriculum.

Educational institutes and training centers must also be proactive and forward-looking in bridging the supply-demand gap of human capital in IT industry, and keep pace with the fast evolving advanced skills. This is where private sector has a particularly important role to play by allocating resources to improvements in human capital and digital literacy. The private sector, especially local high net worth investors, family funds and foundations need to develop a patient

capital mindset characteristic of investments in start-ups. This change is especially needed to increase local investments in areas of edtech, healthtech, and other areas of economy where technology can potentially address Pakistan's long standing challenges, including those related to savings, insurance, taxation, and documentation of informal economy.

The role of fintech in digital transformation will be critical, given its potential to address the digital divide and the fact that finance complements economic transactions. However, the growth of start-ups, in general, and fintech, in particular, depends on how fast the government progresses on ensuring the availability of enabling technologies and related frameworks such as cloud storage and computing, cybersecurity, digitisation of civil registries, credit reporting system reforms, and ensuring interoperability between various government systems and databases.

The development of software, technology start-ups and other IT related sectors is not about choosing IT industry as a winner among others; it's about digital transformation of the economy at large and enabling leapfrogging. In recognition of this, a host of policies and regulations by various ministries and government organisations have laid the right foundations. However, the fast evolving IT industry and the enormous nature of this task requires consistent and concerted efforts to be led by the prime minister office or a dedicated ministry to direct, coordinate, and align private and public sector actors, sectoral policies and institutions across the country.

Annexure A: Data Explanatory Notes

- 1) **GDP:** In case of an ongoing year, for which actual GDP data is yet not available, SBP uses the GDP target given in the Annual Plan by the Planning Commission in order to calculate the ratios of different variables with GDP, e.g., fiscal deficit, public debt, current account balance, trade balance, etc. SBP does not use its own projections of GDP to calculate these ratios in order to ensure consistency, as these projections may vary across different quarters of the year, with changing economic conditions. Moreover, different analysts may have their own projections; if everyone uses a unique projected GDP as the denominator, the debate on economic issues would become very confusing. Hence, the use of a common number helps in meaningful debate on economic issues, and the number given by the Planning Commission better serves this purpose.
- 2) **Inflation:** There are three numbers that are usually used for measuring inflation: (i) period average inflation; (ii) YoY or *yearly* inflation; and (iii) MoM or *monthly* inflation. Period average inflation refers to the percent change of the *average* CPI (national, urban, or rural) from July to a given month of the year over the corresponding period last year. YoY inflation is percent change in the CPI of a given month over the same month last year; and monthly inflation is percent change of CPI of a given month over the previous month. The formulae for these definitions of inflation are given below:

$$\text{Period average inflation } (\square_{\text{Ht}}) = \left(\frac{\sum_{i=0}^{t-1} I_{t-i}}{\sum_{i=0}^{t-1} I_{t-12-i}} - 1 \right) \times 100$$

$$\text{YoY inflation } (\square_{\text{YoYt}}) = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

$$\text{Monthly inflation } (\square_{\text{MoMt}}) = \left(\frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

Where I_t is consumer price index in t^{th} month of a year. The CPI can be national, urban or rural.

For detailed information on the methodology, please see:

www.pbs.gov.pk/content/methodology-2

- 3) **Change in debt stock vs financing of fiscal deficit:** The change in the stock of gross public debt does not correspond with the fiscal financing data provided by the Ministry of Finance. This is because of multiple factors, including: (i) The stock of debt takes into account the gross value of government borrowing, whereas financing is calculated by adjusting the government borrowing with its deposits held with the banking system; (ii) changes in the stock of debt also occur due to movements in exchange rates, both PKR and other currencies against US Dollar, which affect the rupee value of external debt.

4) **Government borrowing:** Government borrowing from the banking system has different forms and every form has its own features and implications, as discussed here:

(a) Government borrowing for budgetary support:

Borrowing from State Bank¹: The federal government may borrow directly from SBP either through the “Ways and Means Advance” channel or through the purchase (by SBP) of Market Related Treasury Bills (MRTBs). Ways and Means Advance allows government to borrow up to Rs 100 million at a time in a year at an interest rate of 4 percent per annum; higher amounts are realized through the purchase of 6-month MTBs by SBP at the weighted average yield determined in the most recent fortnightly auction of treasury bills.

Provincial governments and the Government of Azad Jammu & Kashmir (AJK) may also borrow directly from SBP by raising their debtor balances (overdrafts) within limits defined for them. The interest rate charged on the borrowings is the three month average yield of 6-month MTBs. If the overdraft limits are breached, the provinces are penalized by charging an incremental rate of 4 percent per annum. However, the Federal Government has taken over from the State Bank of Pakistan (SBP) the business of direct credit to provincial governments on 29th June 2020. In this regard, the federal government has executed tripartite agreements with four provincial governments and SBP (as executor) for extension of Ways and Means loans on account of Federal Government Central Account No.I (non-food) on 29th June 2020.

Borrowing from scheduled banks: This is mainly through (i) fortnightly auction of 3, 6 and 12-month Market Treasury Bills (MTBs); (ii) monthly auction of 3, 5, 10, 15, 20 and 30 year fixed rate Pakistan Investment Bonds (PIBs); (iii) fortnightly auctions of 2, 3, 5, 10 year floating rate PIBs; (iv) Sukuk and (v) Bai Muajjal of Sukuk (on deferred payment basis). However, provincial governments are not allowed to borrow from scheduled banks.

(b) Commodity finance:

Both federal and provincial governments borrow from scheduled banks to finance their purchases of commodities e.g., wheat, sugar, etc. The proceeds from the sale of these commodities are subsequently used to retire commodity borrowing.

¹ This was applicable before the amendments in the SBP Act in January 2022. According to Section 9C (1) of the SBP Act (as amended up to 28 January, 2022), the SBP “shall not extend any direct credits to or guarantee any obligations of the Government, or any government owned entity or any other public entity.”

- 5) **Differences in different data sources:** SBP data for a number of variables, such as government borrowing, foreign trade, etc – often do not match with the information provided by MoF and PBS. This is because of differences in data definitions, coverage, etc. Some of the typical cases have been given below.
- (a) **Financing of budget deficit (numbers reported by MoF vs SBP):** There is often a discrepancy in the financing numbers provided by MoF in its quarterly tables of fiscal operations and those reported by SBP in its monetary survey. This is because MoF reports government bank borrowing on a cash basis, while SBP's monetary survey is compiled on an accrual basis, i.e., by taking into account accrued interest payments on T-bills.
 - (b) **Foreign trade (SBP vs PBS):** The trade figures reported by SBP in the *balance of payments* do not match with the information provided by the Pakistan Bureau of Statistics. This is because the trade statistics compiled by SBP are based on banking data, which depends on the actual receipt and payment of foreign exchange, whereas the PBS records data on the physical movement of goods (customs record).

List of Acronyms

A

AI	Artificial Intelligence
ACIS	Australasian Conference on Information Systems
ADB	Asian Development Bank
ADR	Alternative Dispute Resolution Mechanism
ADR	Advance-to-Deposit
ADB I	Asian Development Bank Institute
AIDES	Asian Index of Digital Entrepreneurship Systems
AIIB	Asian Infrastructure Investment Bank
AJK	Azad Jammu & Kashmir
AML/CFT	Anti-Money Laundering and Combating the Financing of Terrorism
APCMA	All Pakistan Cement Manufacturing Association
AR	Annual Rebasing
ATL	Active Taxpayer List
Avg	Average

B

BCI	Business Confidence Index
BCS	Business Confidence Survey
BDI	Baltic Dry Index
BIS	Bank for International Settlements
BISP	Benazir Income Support Program
BSC	Behbood Saving Certificates
BPS	Basic Pay Scale
bps	Basis Points

C

CAD	Current Account Deficit
CBRE	Coldwell Banker Richard Ellis
CC	Cubic Centimeters
CCS	Consumer Confidence Survey
CCT	Conditional Cash Transfer
CD	Customs Duty
CDS	Credit Default Swap
CERT	Computer Emergency Readiness Team
CGD	Center for Global Development
CIF	Cost, Insurance and Freight
CKD	Completely Knocked Down
CMR	Cash Margin Requirement
CNG	Compressed Natural Gas
CoD	Collection on Demand
Covid-19	Coronavirus Disease 2019
CPEC	China Pakistan Economic Corridor
CPI	Consumer Price Index
CVT	Capital Value Tax

D

DAP	Diammonium Phosphate
DFIs	Development Finance Institutions
DPB	Data Protection Bill
DRA	Disparity Reducing Allowance

DSC	Defense Saving Certificates
DSSI	Debt Service Suspension Initiative

E

EAD	Economic Affairs Division
EAP	East Asia Pacific
ECA	Europe and Central Asia
ECC	Economic Coordination Committee
EDS	External Debt Servicing
EE	Export Earnings
EFF	Extended Fund Facility
EFS	Exports Financing Scheme
EGDI	E-Government Development Index
EMDE	Emerging Market and Developing Economy
EPD	Exchange Policy Department
EIB	European Investment Bank
EMI	Electronic Money Institution
ER	Exchange Rate
EU	European Union

F

FAO	Food and Agriculture Organization
FATA	Federally Administered Tribal Areas
FBR	Federal Tax Revenue
FD/KA&GB	Federally Administered/Kashmir Affairs and Gilgit Baltistan
FEE	Foreign Exchange Earnings

FED	Federal Excise Duty
FDI	Foreign Direct Investment
FI	Fixed Investment
FIFA	Federation Internationale de Football Association
FPI	Foreign Portfolio Investment
FX	Foreign Exchange
FY	Fiscal Year

G

GB	Gilgit-Baltistan
GCC	Gulf Cooperation Council
GCSI	Global Cyber Security Index
GDP	Gross Domestic Product
GIS-FRR	Government of Pakistan Ijara Sukuk - Fixed Rental Rate
GIS-VRR	Government of Pakistan Ijara Sukuk - Variable Rental Rate
GOP/GoP	Government of Pakistan
GoS	Government of Sindh
GSMA	Groupe Speciale Mobile Association
GST	General Sales Tax
GEM	Growth Enterprise Market

H

H1	First Half
HBL	Habib Bank Limited
HEC	Higher Education Commission
HS	Harmonized System

HOBC	High Octane Blending Component
HSD	High Speed Diesel
HUBCO	Hub Power Company Limited
HVA	High Value Added

I

IBA	Institute of Business Administration
IBIs	Islamic Banking Institutions
ICIMOD	International Centre for Integrated Mountain Development and Pakistan Agricultural Research Council
ICT	Information and Computer Technology
IDA	International Development Association
IT	Information Technology
IH&SMEFD	Infrastructure, Housing, and Small and Medium Enterprises Finance Department
4IR	Fourth Industrial Revolution
ILO	International Labor Organization
IMF	International Monetary Fund
IPPs	Independent Power Producers
IsDB/IDB	Islamic Development bank
ISP	Internet Service Provider
ITA	Information Technology Agreement
ITIF	Information Technology and Innovation Foundation
ITU	International Telecommunication Union
IVAC	International Vaccine Access Center

K

KEL	K-Electric
KPK	Khyber Pakhtunkhwa
KSA	Kingdom of Saudi Arabia

L

LAC	Latin America and the Caribbean
L/C	Letter of Credit
LIBOR	London Interbank Offered Rate
LNG	Liquefied Natural Gas
LMIC	Lower middle income countries
LSM	Large Scale Manufacturing
LT	Long Term
LTFF	Long-Term Financing Facility

M

MMBTU	Metric Million British Thermal Unit
MNA	Middle East and North Africa
MNFS&R	Ministry of National Food Security and Research
MoITT	Ministry of Information Technology and Telecommunication
MIT	Massachusetts Institute of Technology
MMT	Million Metric Ton
MPC	Monetary Policy Committee
MSCI	Morgan Stanley Capital International
MSP	Minimum Support Price
MT	Metric Ton

MTBs Market Treasury Bills

N

NADRA National Database and Registration Authority

NBER National Bureau of Economic Research

NBFIs Non-Bank Financial Institutions

NCP National Cybersecurity Policy

NCPI National Consumer Price Index

NDA Net Domestic Assets

NDMA National Disaster Management Authority

NEER Nominal Effective Exchange Rate

NEPRA National Electric Power Regulatory Authority

NFA Net Foreign Assets

NFNE Non-Food Non-Energy

NFPSEs Non-Financial Public Sector Enterprises

NHSR&C National Health Services Regulation and Coordination

NIC National Incubation Centre

NITB National Information Technology Board

NPCs Naya Pakistan Certificates

NSS National Saving Schemes

NSTR National Sales Tax Return

NTDC National Transmission & Despatch Company

O

OCHA Office for the Coordination of Humanitarian Affairs

OCAC Oil Companies Advisory Council

OECD	Organisation for Economic Co-operation and Development
OGDC	Oil and Gas Development Corporation
OGRA	Oil and Gas Regulatory Authority
OMO	Open Market Operation

P

PASHA	Pakistan Software Houses Association
PAMA	Pakistan Automotive Manufacturers Association
PARC	Pakistan Agricultural Research Council
PBA	Pensioners' Benefit Account
PBS	Pakistan Bureau of Statistics
PBOS	Punjab Bureau of Statistics
PCCC	Pakistan Central Cotton Committee
PDL	Petroleum Development Levy
PE	Price Effect
PEDL	Public External Debt and Liabilities
PEMRA	Pakistan Electronic Media Regulatory Authority
Pepco	Pakistan Electric Power Company
PFLs	Floating-rate PIBs
PKR	Pakistani Rupee
PKRV	Pakistan Revaluation
POS	Point-of-Sale
PSDP	Public Sector Development Program
PSEs	Public Sector Enterprises
PSER	Pakistan Start-up Ecosystem Report

PSLM	Pakistan Social and Living Standards Measurement Survey
PIBs	Pakistan Investment Bonds
PID	Project Information Document
PCFP	Pakistan Cloud First Policy
POL	Petroleum, Oil and Lubricants
PSDP	Public Sector Development Programme
PECA	Prevention of Electronic Crimes Act
PTA	Pakistan Telecommunication Authority
PSO	Pakistan State Oil
PSX	Pakistan Stock Exchange
PSEB	Pakistan Software Export Board

Q

Q1	First Quarter
Q2	Second Quarter
Q3	Third Quarter
Q4	Fourth Quarter
QIM	Quantum Index of Large-Scale manufacturing
QTA	Quarterly Tariff Adjustment

R

REER	Real Effective Exchange Rate
REIT	Real Estate Investment Trusts
R&D	Research and Development
RIC	Regular Income Certificates
RLNG	Regassified Liquefied Natural Gas

RPI	Retail Price Index
S	
SAR	South Asian Region
SBOS	Sindh Bureau of Statistics
SBP	State Bank of Pakistan
SDR	Special Drawing Rights
SECP	Securities Exchange Commission of Pakistan
SKD	Semi Knocked Down
SNF	Specialized Nutritious Food
SNGPL	Sui Northern Gas Pipelines Limited
SRO	Statutory Regulatory Orders
SSA	Sub-Saharan Africa
SSC	Special Saving Certificates
SST	Sindh Sales Tax
ST	Short term
STPED	Short Term Public External Debt
SWAPS	Synchronized Withholding Administration and Payment System
T	
TEDL	Total External Debt and Liabilities
TERF	Temporary Economic Refinance Facility
TD	Tariff Differential
TIS	Track and Trace System
U	
UAE	United Arab Emirates

UK	United Kingdom
UCT	Unconditional Cash Transfer
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
US/USA	United States of America
USC	Utility Store Corporation
USD	United States Dollar
V	
VE	Value Effect
VC	Venture Capital/Venture Capitalist
VRR	Variable Rental Rates
W	
WALR	Weighted Average Lending Rate
Wapda	Water and Power Development Authority
WB	World Bank group
WC	Working Capital
WHT	Withholding taxes
WIPO	World Intellectual Property Organization
WPI	Wholesale Price Index
Y	
YoY	Year on Year