Pakistan's External Debt: Trends, Outcomes and Sustainability

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Introduction

Over the last fifteen years, Pakistan has experienced a series of macroeconomic crises. A common feature of these has been a shortage of foreign exchange with which to service external claims. Escape from the crises has also followed a common pattern in that new loans are usually obtained from multilateral and bilateral sources to tide things over. Such loans have not provided more than temporary relief and a new crisis has typically appeared within four to five years. It is hard to escape the impression that, in recent years, much of the additional debt has been used to service existing debt claims rather than to fix underlying problems that might lead to an eventual decrease in the need for debt. If true, this may presage a deeper crisis in the years to come, when solvency rather than liquidity may be threatened. Such concerns justify a deeper look at the evolution and composition of Pakistan's external debt and economic outcomes with a view to highlighting aspects that bear on the sustainability of the debt. This is the objective of this note.

We focus here on the publicly guaranteed external debt[1]. We do not include private (non-guaranteed) external debt since that is virtually non-existent for Pakistan[2]. Pakistan's corporate sector does not have much access to international capital markets. Domestic debt is dealt with in a separate note.

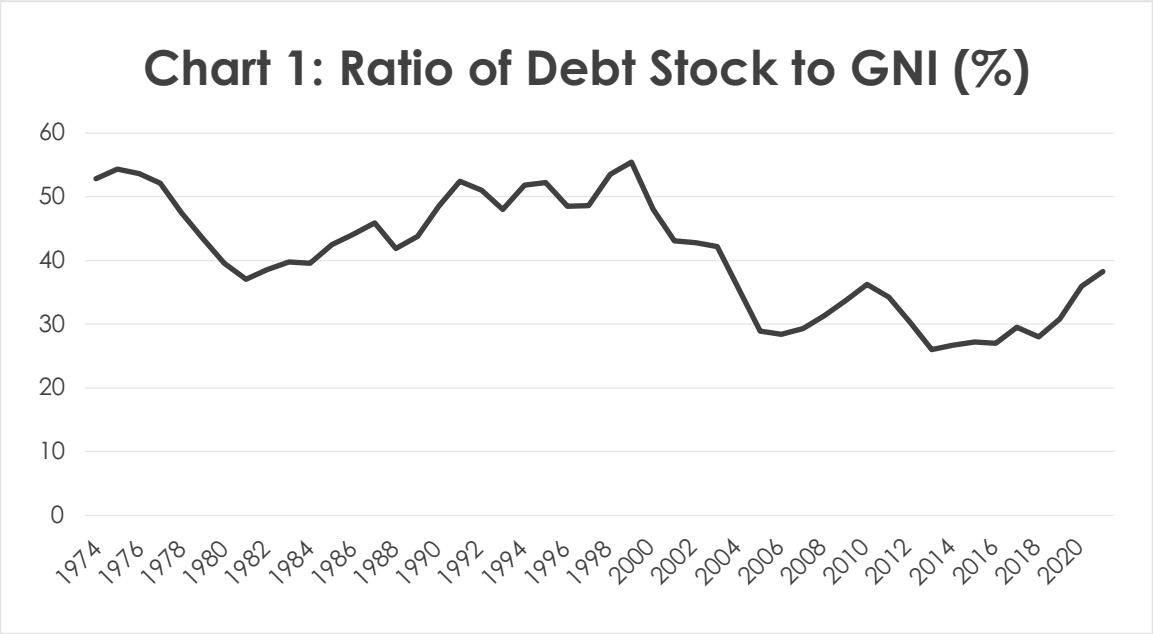
The remainder of this paper is organized in the following sections. Section A shows key trends in the evolution of external debt service, highlighting the drift towards crisis in the last ten years or so. Section B shows that development outcomes have been deteriorating in Pakistan since 2000 and analyses their correlation with external debt. Section C discusses possible explanations for poor development outcomes, emphasizing security considerations, rigidity in public spending, exchange rate appreciation pressures set up by aid and remittance flows and changes in the cost and uses of finance provided by the multilateral development banks (MDBs). Section D considers recent changes in the composition of the debt that may have a bearing on the issue of debt sustainability. Section E provides concluding remarks.

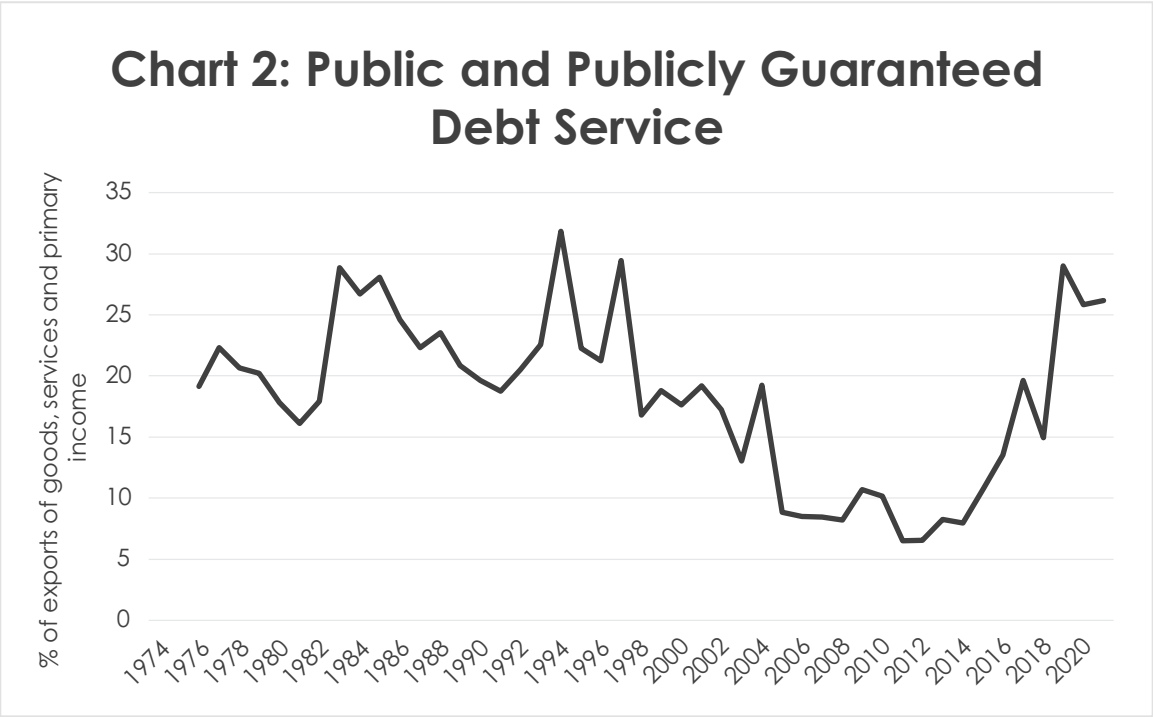
1. Trending towards a crisis

Trends in two simple debt vulnerability ratios show that Pakistan got on a path towards a crisis in debt servicing in recent years. First, the external debt ratio, or the stock of external debt divided by the gross national income (see Chart 1) has been rising for the past ten years. Second, and more worrying, is the debt servicing ratio, or the volume of annual repayments falling due divided by the earnings obtained from the exports of goods and services (see Chart 2). This has also been rising for the past ten years. If sustained for long, this path could generate concerns about liquidity (the ability to refinance debt service falling due) and perhaps even solvency (the ability to generate sufficient exports growth to meet obligations).

[1] The terms external finance, foreign aid and concessionary capital are used interchangeably in the note. They all refer to loans from multilateral and bilateral sources with repayment guaranteed by the Government of Pakistan.

[2] In this sense, Pakistan's debt challenge is different from that faced by Asian countries in the late 1990s which was instigated by high levels of private external debt.





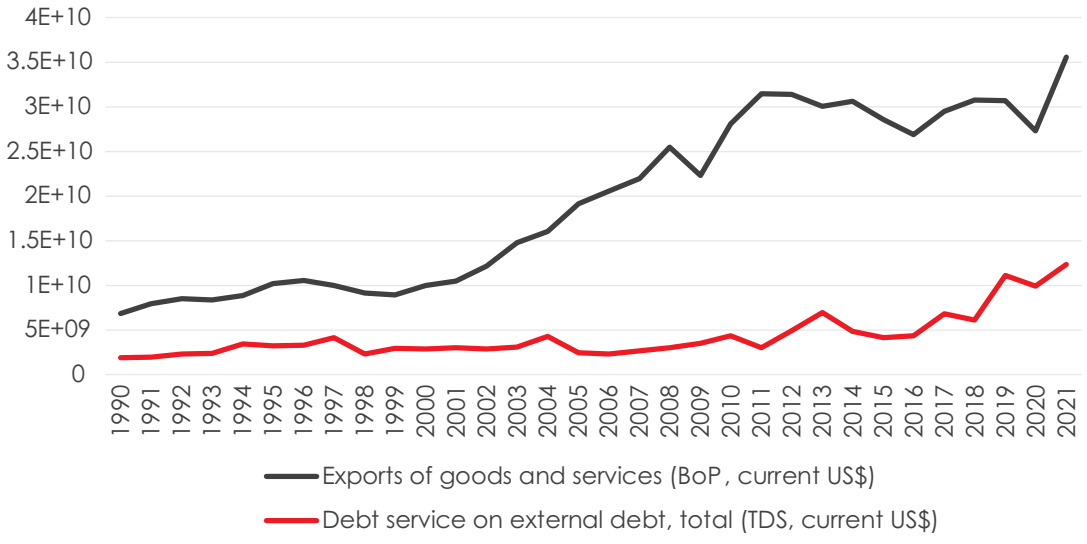
The trend towards crisis appears to have begun around 2012 or so. Prior to that, for the period 1999-2012, the relevant vulnerability ratios were declining. What accounts for this pattern? It turns out that the improvement that began in 1999 was due primarily to a series of debt restructurings arranged during the period 1998-2001 under which payments were stretched out and some debt was forgiven[3]. The restructuring started with a cut-off to access to bilateral and multilateral loans after Pakistan carried out nuclear tests in May 1998. This cut-off created a crisis for Pakistan and its debt burden touched 54% of GNI in 1998. A default was declared, and a Paris Club process was initiated in December 1998 which culminated, after several intermediate steps, in a final agreement in December 2001. While the initial stages of the Paris Club discussions yielded modest relief, the last stage undertaken in December 2001 yielded generous terms. This coincided with Pakistan's signing on as an ally of the USA in the war on terror following the 9/11 attacks. The increase after 2012 (see Chart 2) was due in part to the resumption of the normal trend in debt

[3] Pakistan restructured debt in the amount of US$19 billion or one-third of contemporary GDP. The bulk (93%) was owed to bilateral creditors. The net present value reduction in debt was in the range of 28-44%. For details, see Diaz-Cassou et al (2008).

servicing claims (the numerator) but even more importantly to a stagnation in exports (the denominator).

The next chart shows this even more clearly. It shows that, while debt servicing claims were flat between 1998 and 2011, they have been rising since. And while claims have been rising, exports have broadly stagnated in nominal dollar terms since 2011. It is this export stagnation that has created a severe payments problem for Pakistan in recent years.

Chart 3: Trends in Exports and Debt Service



Source: WDI

2. Poor development outcomes with rising debt

The underlying logic of debt-financed development is that the debt provides a channel for using external savings to finance domestic investments and policy reforms. These in turn enhance productive capacity and efficiency, leading to higher output and foreign exchange with which to repay the debt. To what extent has this happened in Pakistan over the last sixty years? We start with a look at how certain key development outcomes have unfolded. In particular, we focus on trends in economic growth, public and private investment, and trade performance.

Chart 4 shows overall and sectoral growth outcomes over nine time periods between 1961 and 2020. It is clear from this chart that, despite some fluctuation across periods, growth was higher in the first twenty-five years (1960-85) than it has been since.

Chart 4: Growth Outcomes

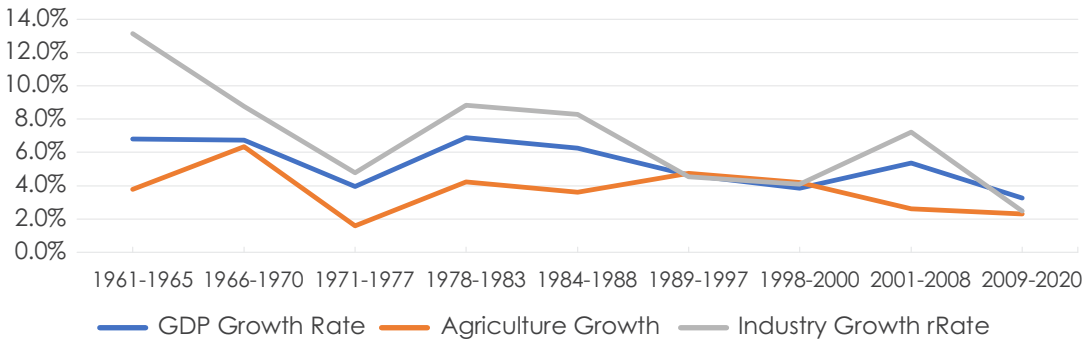


Chart 5 shows public and total investment trends during 1960-2020. Once again it is clear that, despite some fluctuations, investment was higher during earlier years than in more recent years. In particular, public investment appears to have been on a declining trend since the late 1970s, dropping from as much as 12 percent of GDP in 1976 to as little as 3 percent in 2020. Total investment, which includes private investment, has not declined as dramatically but it has also been on a declining trend at least since 2008.

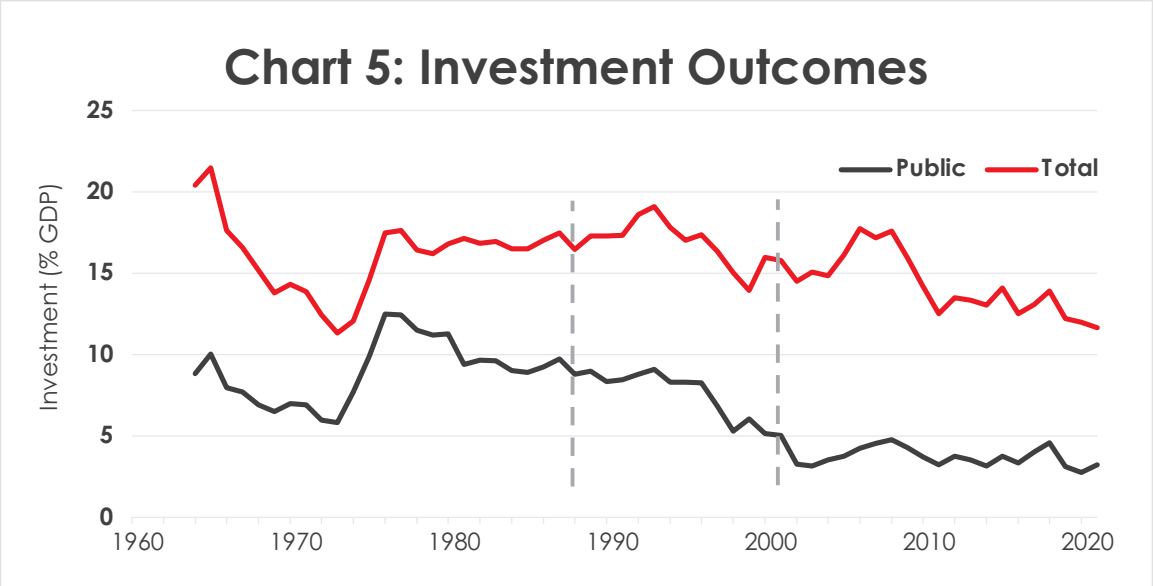
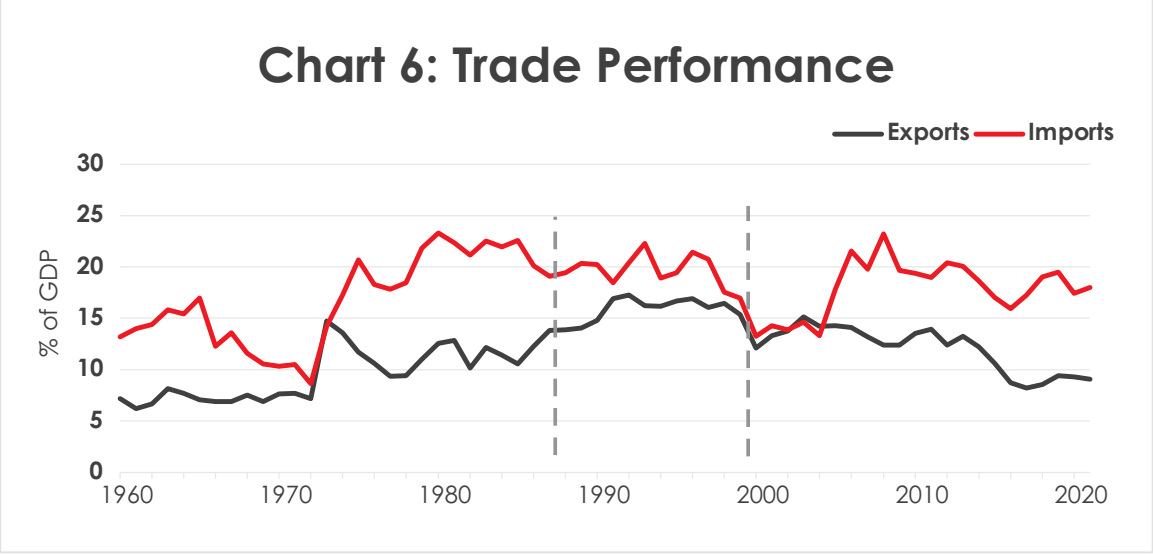


Chart 6 provides information on trade performance, measured in terms of imports and exports as percentages of GDP. Once again since 2004, Pakistan has run a constant trade gap, with the import ratio exceeding the export ratio by about 7 percent of GDP. It is also clear that the export ratio rose between 1960 and 1998 but has declined since then. This poor export performance of recent years has been noted in the discussion around Chart 5 as well.



All three charts suggest a pattern with better outcomes in earlier years and worse ones in later years. Were these outcomes somehow related to trends in external debt? We test the relationship between external debt and the above outcomes in a simple regression framework. Each outcome is regressed against two independent variables, the share of external debt in GDP and a dummy variable set as 1 for the year 2000 onward and 0 before that. The results are reported in Table 1.

Table 1 confirms the trend we have seen in the charts above: growth, investment and exports have all performed worse after 2000 than before. Indeed, the time dummy is highly significant in all regressions. External debt is found to be significant in two cases, exports

and total investment, bearing a negative sign in each case. In other words, external debt appears to be correlated with declining export and investment performance in Pakistan, and especially so in the last two decades. Both results go against prior expectations. After all, the main justification for external aid is that it helps build infrastructure and institutional capacity with which to improve productivity and competitiveness. Why is this not observed in the Pakistan case?

We emphasize, of course, that these are reduced-form regressions for very lightly specified models. But they serve to confirm what simple charts suggest while providing grounds for more research and analysis to be done to determine causes and effects with better specified models and econometric procedures.[4]

Table 1. Impact of External Debt on Debt Sustainability, Investment and economic growth.

	Dependent Variables						
	Exports as Share of GDP (1)	**Debt Service as Share of Exports (2)**	**Public Investment as Share of GDP (3)**	**Total Investment as Share of GDP (4)**	**GDP Growth (5)**	**Industry Growth (6)**	**Agriculture Growth (7)**
External Debt as Share of GDP	-0.513** (0.213)	0.178 (0.675)	0.081 (0.123)	-0.323** (0.138)	-0.202 (0.171)	-0.247 (0.34)	-0.202 (0.171)
Post 2000 Effect	-1.956** (0.832)	-6.967** (2.639)	-4.801*** (0.48)	-1.997*** (0.54)	1.625** (0.667)	-2.575* (1.327)	-1.625** (0.667)
Constant Term	14.476***	25.465*** (2.463)	8.54*** (0.224)	17.111*** (0.504)	5.911*** (0.622)	7.21*** (1.239)	5.911*** (0.622)
Obser-vations	52	52	52	52	52	52	52
R-Squared		0.172	0.742	0.223	0.108	0.073	0.108

OLS regression: Post 2000 effect is captured through a dummy variable that takes the value of 1 after the year 2000 and 0 before that.

[4] An attempt is made at this in Annex A through the estimation of impulse response functions. The results corroborate the results reported in Table 1 (see Charts A1-A6).

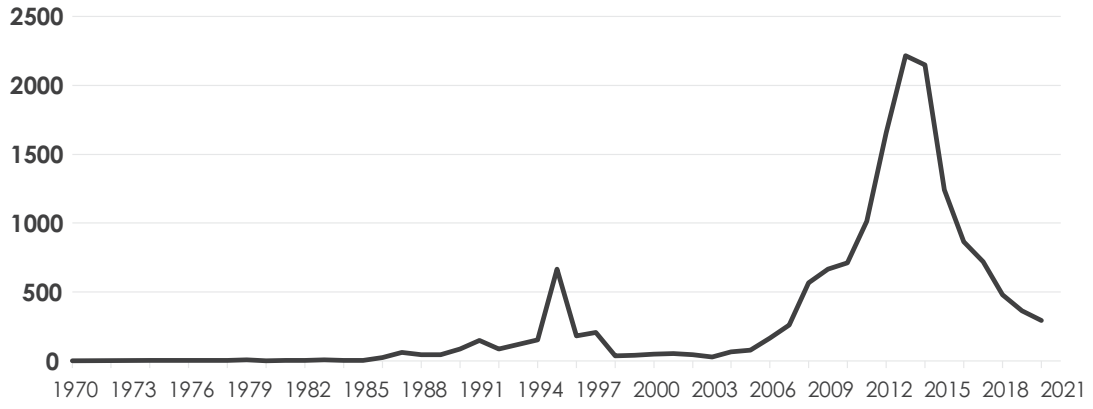
We discuss below three aspects of development in Pakistan that may explain why external finance did not yield positive development outcomes in the post-2000 period. They relate to security and public spending issues, Dutch Disease considerations, and changes in the composition of multilateral aid portfolios.

3. Possible Explanations for Poor Development Outcomes

Security State and Inflexible Public Expenditure

In the 2000's, the security situation for Pakistan changed radically as shown in Chart 7. There was a sharp increase in terrorist incidents following the Pakistan-supported US invasion of Afghanistan. Handling security required substantial budget outlays and considerable policy attention. A big jump in expenditure also occurred as the military government decided not to pass on increases in international energy prices to consumers. This was done in the hope of continued public support. The result was a large fiscal deficit and a balance of payments crisis in 2008 despite a huge increase in grant inflows and debt restructuring over the first decade of the new century. Economic difficulties led to the re-establishment of democracy and installation of elected governments starting in 2008. However, the elected governments had weak political mandates and lacked the will to reform rigid public expenditure with defense (internal and external security) and debt servicing taking up nearly 60 percent of the annual budget (Box 1). Combined with lack of political will to mobilize revenue, the stage was set for the fiscal and external payments crises of 2012-13, 2017-18 and 2022-23. Loans from both multilateral lenders (IMF, World Bank, Asian Development Bank) and bilateral sources (Saudi Arabia, UAE and increasingly China) helped plug the current account deficit. But this was channeled largely into consumption (energy and other subsidies, public security) while public investment continued to stagnate at a low level.

Chart 7: Terrorist Incidents in Pakistan



Source: Global Terrorism Database 1970 - 2020 [data file]. https://www.start.umd.edu/gtd

Box 1: Public Expenditure Rigidity

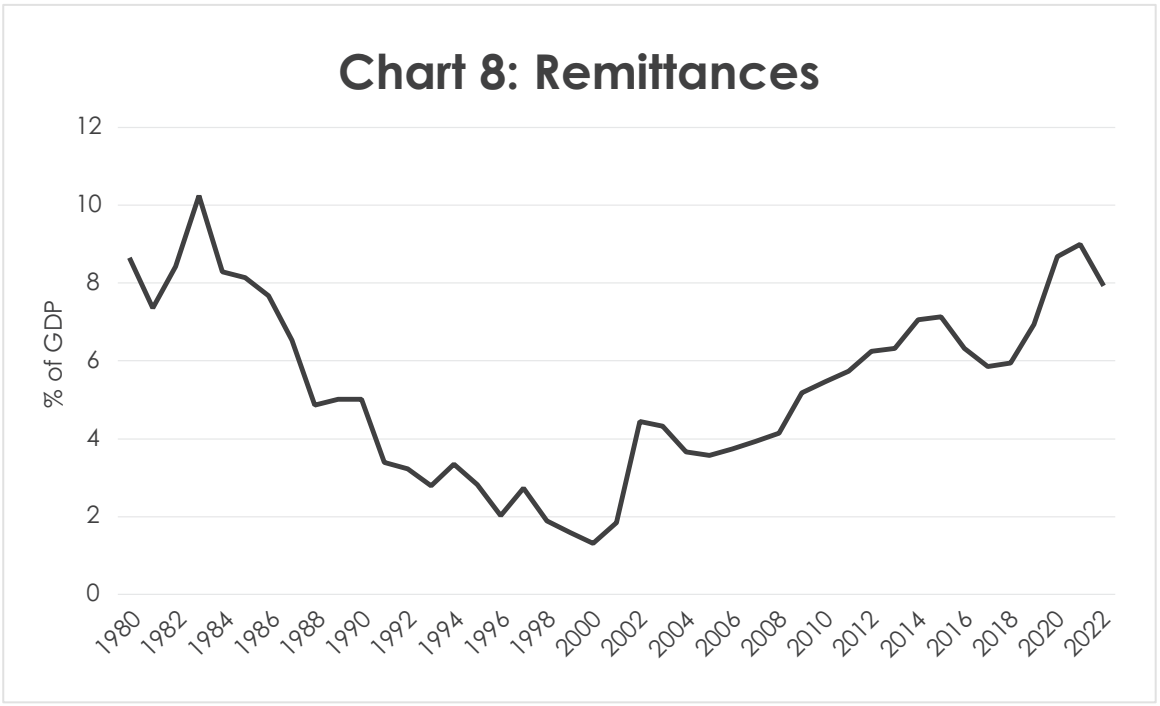
Budget 2021 is a good example of expenditure rigidity in Pakistan budgets in recent years. Consolidated budgetary expenditure was about 18.5% of GDP in 2021 (of which 70% were expenditures of the federal government). In 2021 about 63% of total federal expenditure, was on three expenditure heads: interest payments (38%), defense (18%) and pensions (6.5%). Of these three, it is only pensions that could be cut in any adjustment.

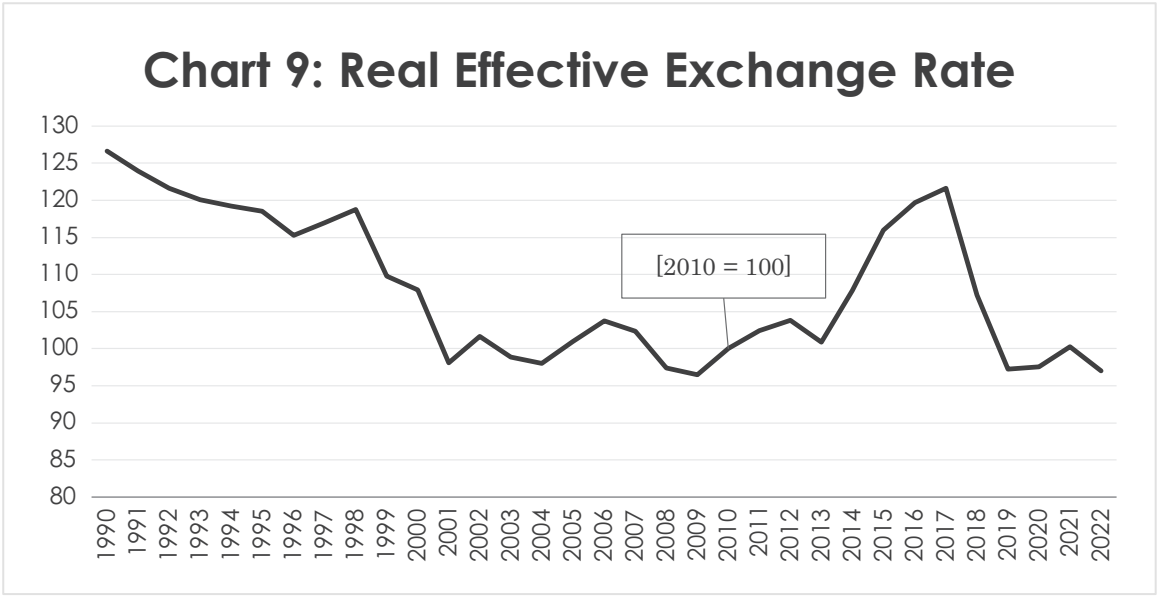
The other expenditure heads that could be cut are civil administration, including wages & salaries, (6.7%), grants and transfers (13%), subsidies (4.6%, of which 85% or Rs366 billion was electricity subsidy) and development expenditure and net lending (11%, of which PSDP is 85%). Weak political mandates have prevented adjustments in subsidies, grants, and transfers. Civil servants are highly resistant to salary cuts, so the adjustment has fallen on development expenditure (public investment).

Dutch Disease Considerations

As external finance flows rose relative to income in the 1960s, Pakistan began to experience an early version of the Dutch Disease: the appreciation of the real exchange rate discriminated against exports and encouraged the flow of resources to the non-tradable sector. To counter this, the government invested in large infrastructure projects (electricity, roads, and ports) to strengthen competitiveness of manufacturing. An export bonus voucher scheme with multiple exchange rates was introduced that favored exports and influenced the pattern of imports. For all its merits, the scheme was complicated, and after a while the supply and demand of vouchers could not be managed, leading to arbitrariness and corruption. To further liberalize trade, Pakistan adopted a "free list," but only after the United States agreed to provide commodity aid (albeit tied to U.S. sources) for balance of payments support. This arrangement worked well, and Pakistan was on its way to trade liberalization until 1965, when Pakistan and India fought a war, and Pakistan's naivete in counting on politically motivated U.S. aid, even when a sound economic program was being implemented, was fully revealed. For the next fifteen years Pakistan remained in political disfavor; U.S. political concerns and alliances changed and no matter what the economic performance, the United States would have a low aid profile in Pakistan for some time to come.

After September 11, 2001, however, Pakistan again started to receive large inflows of grants from the US and other western sources. This was also a period of rapid increase in remittances from Pakistani overseas workers (Chart 8). Remittances and aid allowed Pakistan to maintain an over-valued exchange rate (Chart 9), with all the adverse Dutch Disease consequences. This discussion is picked up in more detail in a separate paper.





Note: Real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs.

Changing External Loan Portfolio

In the earlier phases of external financing, Pakistan and its two major lenders, the U.S. Agency for International Development (USAID) and the World Bank, enjoyed a close relationship. General Ayub Khan, who became President in 1958 following a military coup, was favorably disposed to the West in general and to the United States in particular. In the 1950s, the World Bank had negligible dollar commitments but because of its active participation in the Indus Waters Treaty between India and Pakistan, and its leadership of the Aid to Pakistan Consortium established to implement that treaty, it was perceived by the government as a friend and a guide. These relationships influenced Pakistan's overall development strategy. The Harvard Advisory Group contracted by USAID and the World Bank helped with institution building for economic management and with the choice of investment projects. Development economics was beginning to acquire a respectability that the Harvard contractors were eager to put to the test. The World Bank saw Pakistan as an opportunity to demonstrate the viability of development led by foreign capital[5]. This strategy was backed by public investment projects (Table 2) which accounted for nearly all of the $8.15 billion of aid provided during 1960-87. Only $396 million out of $3.3 billion was provided by the World Bank as non-project assistance.

[5] This is often referred to as the Chenery-Strout two-gap model. It considers growth of less developed countries to be constrained by two gaps: that between domestic savings and the investment required for take-off, and that between export revenues and the imports needed for development. Foreign aid helps bridge the two gaps.

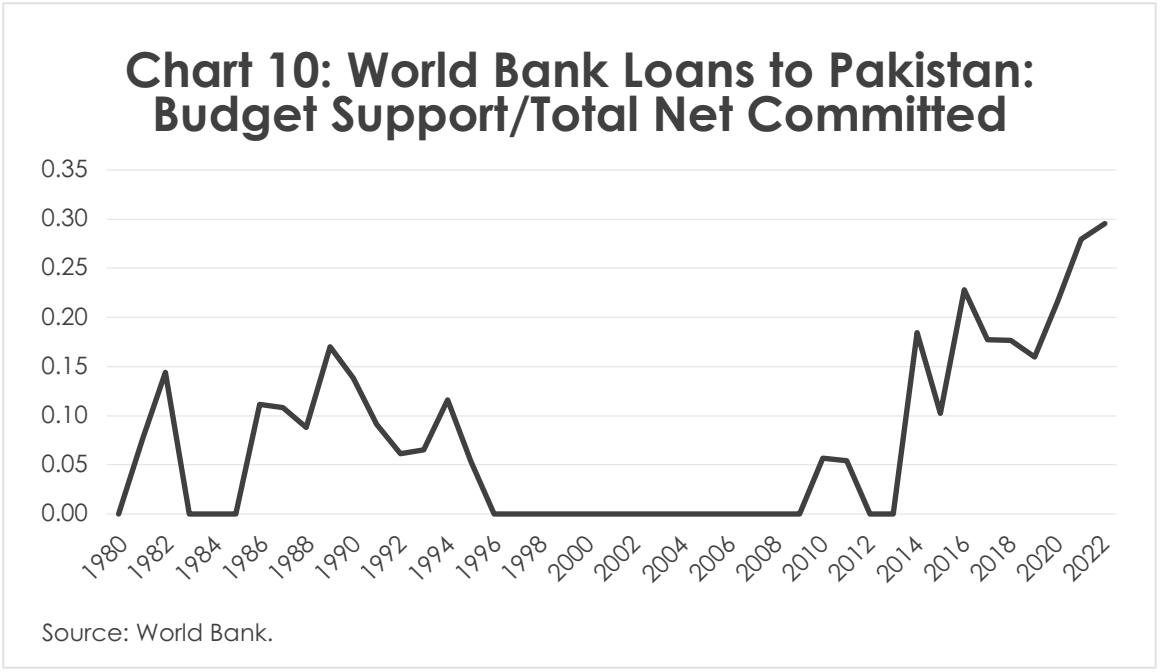
Table 2: Lending Portfolios of Principal External Donors (1960-87)

	World Bank (1960-84)		Asian Development Bank (1968-84)		US AID (1969-87)	
	Percentage Spend	Number of Projects	Percentage Spend		Percentage Spend	
Agriculture	29	34	27		23	
Energy	8	10	42		12	
Public Utilities	7	11				
Industry	5	5	5		39	
Development Finance	16	18	17			
Transport & Communications	17	27	4		19	
Water Supply			3			
Infrastructure			3			
Social Infrastructure					5	
Education	3	7				
Population	1	1				
Special Projects					2	
Non-Project Lending	12	11				
Total (US$)	3304	124	2115		2731	

Sources: World Bank, Statement of loans/credits (1986), Washington DC; Asian Development Bank, Manila; USAID, Islamabad.

Over time, the lending priorities of the main sources of external finance for Pakistan shifted in favor of such objectives as policy reform, social protection, and institutional change. This was meant to make countries more competitive, more equitable and less corrupt. So, the aid portfolios of these lenders began to shift in favor of what were known as "program" loans as opposed to "project" loans. The World Bank, for example, substantially ratcheted up quick disbursing lending (via instruments such as development policy finance and program for results). In 2022, 30 percent of the lending was via such quick disbursing instruments (Chart 10). There was merit in this approach at the broader global level since it promoted capacity building by borrowers to pursue their own development strategies.

Pakistan, however, was facing distinct political economy challenges that were not conducive to reform. The military government of General Musharaff had started with a flurry of reform, but because of rigidity in security expenditure (see above), combined with his desire to prolong tenure (and the need to build coalitions with stakeholders benefiting from the status quo), he was unable/unwilling to pursue further reform. Even the earlier reform was abandoned/weakened. It was clear that concessionary finance (external debt) was not helping modernize the structure of the economy as envisaged in loan conditions. Exports that would service the quick disbursing loans were on a downward trajectory, making Pakistan vulnerable to payments crises. Quick disbursing loans effectively support public consumption rather than productive investment, preparing the ground for subsequent distress.



Source: World Bank.

4. Sustainability Considerations

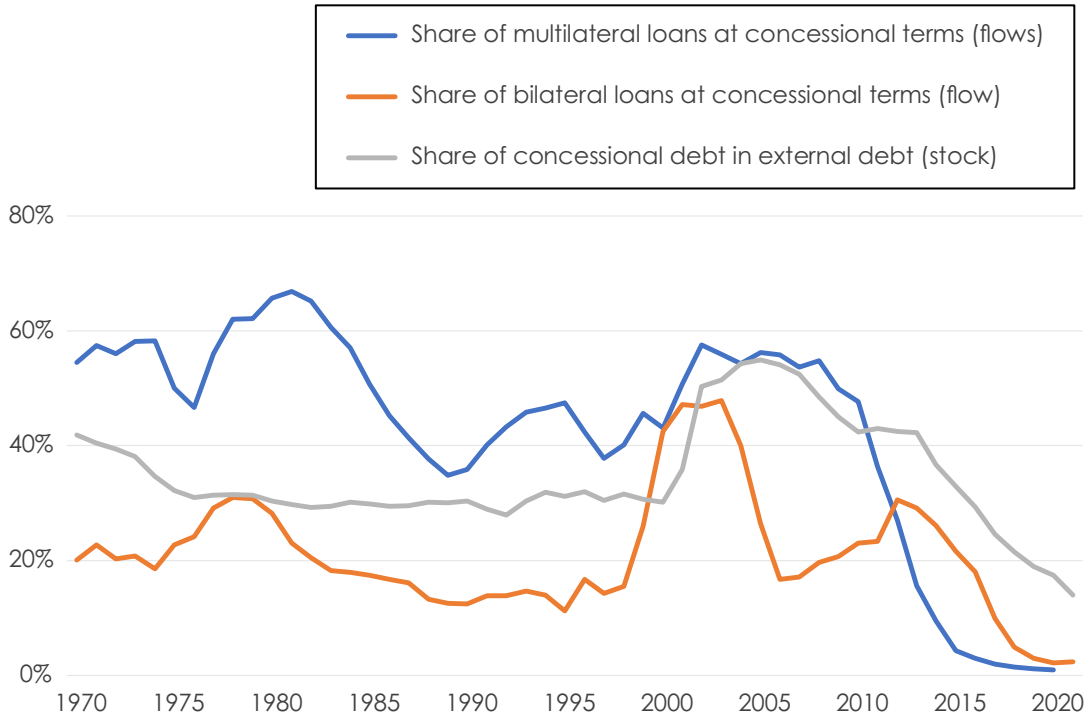
The previous two sections have shown that, in recent years, the debt servicing burden has risen to challenging levels while economic outcomes have been poor in terms of growth, investment and exports. These two aspects suggest that we should be concerned about the sustainability of Pakistan's external debt. In this section, we consider additional aspects that may have a bearing on sustainability. These pertain to changes in the composition of the external debt since 1990. We discuss three categories in particular: credits, short term debt and debt owed to China.

Credits Versus Loans

External debt may be divided into credits and loans. Credits refer to heavily concessional loans from IDA (an arm of the World Bank) and from regional development banks of which the Asian Development Bank is the most important source for Pakistan. These are offered at very long maturities (30-40 years) and do not carry interest charges, only administrative fees. All other sources of official debt carry higher interest rates and are of shorter duration. They come from a variety of multilateral sources (such as IBRD, ADB and IMF) and bilateral sources (such as China, Japan, KSA, UAE, USA and others). The multilateral sources typically price their loans off some international benchmark such as LIBOR. Bilateral sources exercise more discretion in what they charge as such loans are also considered elements of their foreign policies. Still, loans imply more of a burden than credits and any shift in the relative shares of credits and loans affects the long-term profile of debt servicing.

The access that Pakistan enjoyed to concessional funding changed over time: as its income rose, terms for multilateral institutions loans hardened, shifting from IDA credits to IBRD loans with respect to the World Bank. A similar hardening of terms occurred for the Asian Development Bank. At the same time, while bilateral concessional support poured in in the aftermath of 9/11, and then rose again in around 2010, they have now have entirely disappeared. Stocks take longer to react than flows, but as this debt is extinguished, Pakistan's exposure to shorter maturity, higher interest debt will only increase.

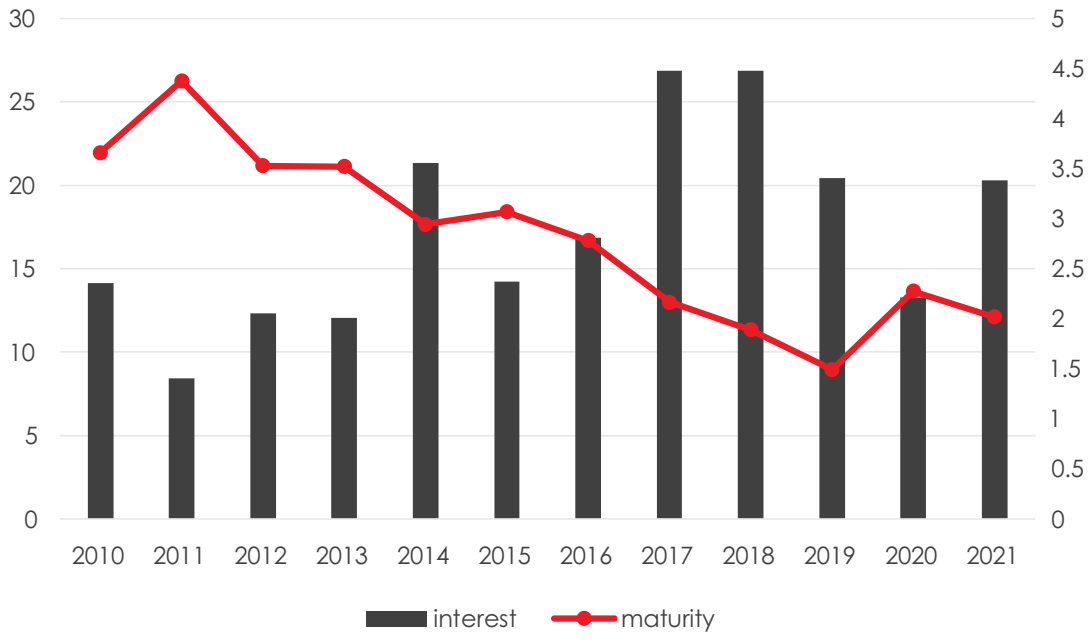
Chart 11: Trends in Concessional External Finance



Source: International Debt Statistics, World Bank

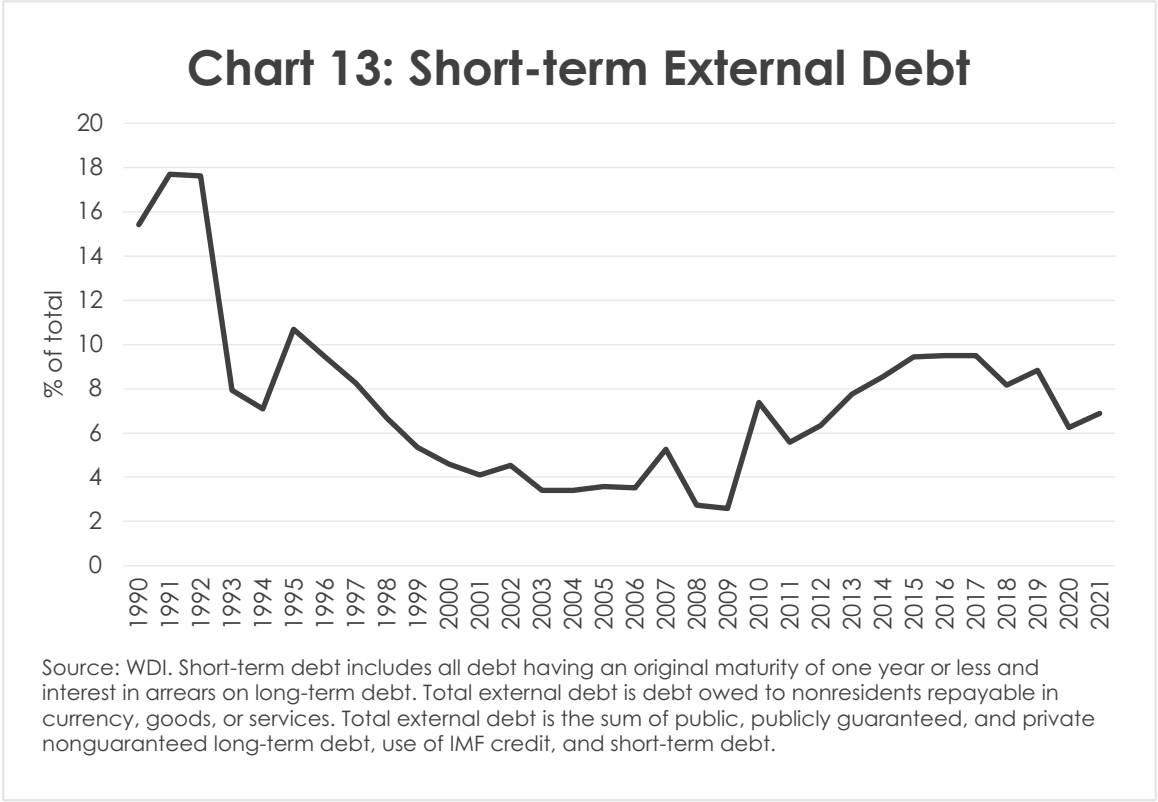
Note: Concessional loans are defined as loans with a grant element higher than 35%. They include IDA credits, but not IBRD loans. The flow series are smoothed with a 5-year moving average.

Chart 12: Trend in Loan Terms



Short Term Debt

Short term debt refers mostly to debt contracted for a period less than a year. It often comes in the form of deposits placed by friendly governments to bolster Pakistan's international reserves. Such debt gives rise to a greater servicing challenge since it has to be repaid or rolled over within a year. Viewed over thirty years, Pakistan has not made extensive use of short term debt, the average amount being around 10 percent of the total. However, after falling between 1990 and 2003, the share of short-term debt began to rise as of 2004, from around 3 percent to around 10 percent by 2016 (see Chart 13).



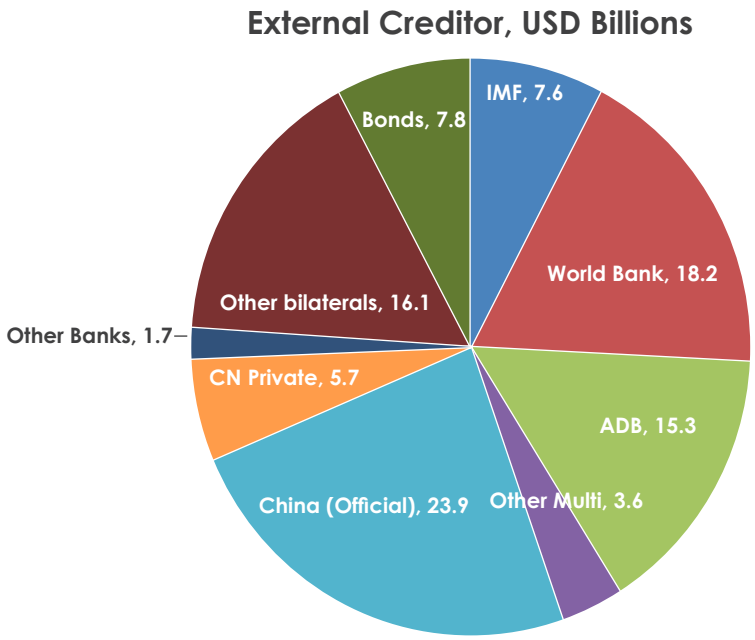
Source: WDI. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. Total external debt is debt owed to nonresidents repayable in currency, goods, or services. Total external debt is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt.

Debt Owed to China

The IMF's latest staff report for Pakistan (dated July 2023) reports the stock of debt owed to China (by end 2020/21) at $24 billion and to Chinese commercial banks at $5.7 billion[6]. These two categories amount to roughly 30 percent of Pakistan's total external debt. China has become the single largest creditor of Pakistan in recent years, owning even more of the country's debt than individual long term multilateral lenders like the World Bank. Is this something to worry about? There are at least three reasons to be concerned. First, a 30 percent exposure to one lender is risky even if political relations are smooth at the moment. Second, the amounts owed to Chinese banks are at commercial terms which typically pose greater risks for debt servicing. Third, the terms of official Chinese loans to Pakistan are reported to vary from case to case; some cases may involve relatively expensive terms.

[6] See IMF (2022) Table 10.

Chart 14: Stock of External Debt, by Creditor



5. Concluding Remarks

The objective of official, concessionary external financing, the main component of Pakistan's external debt, is to promote economic growth and improve living standards. Policy reform and public investment are key to making the economy more competitive and increasing exports. This strengthens the capability to service the official external debt and achieve progress towards borrowing in the international market. Economic growth, investment and exports growth are thus good measures of how well external debt has served the country in promoting development and accessing the international capital market.

The paper has highlighted that Pakistan experienced relatively higher growth, investment and export performance in the earlier years of high external finance (1960-87) compared to the more recent years (2000-2022). In the earlier years, the public investment program was robust and helped crowd in private investment. Overall GDP growth was strong as reflected in productivity-led growth in agriculture (green revolution) and establishment of large-scale manufacturing. Export growth, led by textiles, was impressive: Pakistan's export to GDP ratio was higher than India's for several decades. In the more recent phase of high external finance, this was not the case. Key economic indicators such as investment, exports and overall economic growth trended downward. Meanwhile, consumption and imports rose, typically generating large fiscal and current account deficits. It appears that external financing funded more consumption than investment in recent years, weakening the competitiveness of the economy and reducing its ability to service a mounting external debt.

The paper has offered some hypotheses to explain why this happened. These include dissipated policy energy because Pakistan became a security state (to deal with the fallout out of the Afghan wars), rigidity of public expenditure and elected governments' weak political mandate to address it, the Dutch Disease syndromes associated with high remittances and external finance inflow, and MDB lending practices under which a higher proportion of loans ended up supporting consumption rather than public investment.

The progressive shift to quick-disbursing loans by multilateral agencies was well intentioned: let countries pursue their own development paths but make the supporting regulatory framework and governing institutions stronger and country specific. But this approach has not worked in Pakistan's case. Reforms were reversed (the energy pass through reform for example) and many were not implemented despite the legal/regulatory amendments (examples are the Fiscal Responsibility Act, reform of the huge throw forward in public

investment and those aimed at making exports competitive). The dissipation of policy energy, the repeated balance of payments crises and the design of IMF programs to address them, narrowed the fiscal space to counter the Dutch Disease and promote a competitive economy. This resulted in export stagnation and erosion of debt servicing capability.

Any debt restructuring efforts thus must be informed by Pakistan specific circumstances, and the lending practices of IFIs, its principal source of external finance. An important question to focus on is this. Are IFIs the right institution for geo-political lending, especially when the borrower is unwilling/unable to reform and the capacity to service loans with export earnings is eroding. By extension, shouldn't IFIs bear some responsibility for subsequent balance of payments crises faced by countries such as Pakistan?

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Annex A

Alternative Statistical Approach to Measuring Development Impact of Pakistan's External Debt

We employ an alternative statistical method to flesh out the cascading impact of Pakistan's concessionary debt on key economic outcomes. Concretely, the empirical specification will consist of dependent variables i.e. debt burden (debt servicing to export earnings ratio), Investment (public and private) and overall and sectoral (agriculture, industry) growth rates. The independent variable will be external debt (concessionary capital flows. An intervention variable that identifies pre (1960-2000) and post-2000 periods will also be included. The impact of debt on dependent variables will be determined based on the methodology outlined below.

In order estimate the impact of the change in the nature and level of debt on the dependent variables listed above, this paper will employ the econometric methodology expounded by Jordà (2005). This methodology is referred to as Local Projection model. Local projection model gives us the cumulative Impulse Response Functions (IRFs) that trace out the impact of a percentage point change in external debt during the pre and post 2000 periods. Once the cumulative Impulse Response Functions (IRFs) have been determined and plotted for both periods, differences are expected to jump out.

Specifically, the following regression equation will be used for plotting the IRFs:

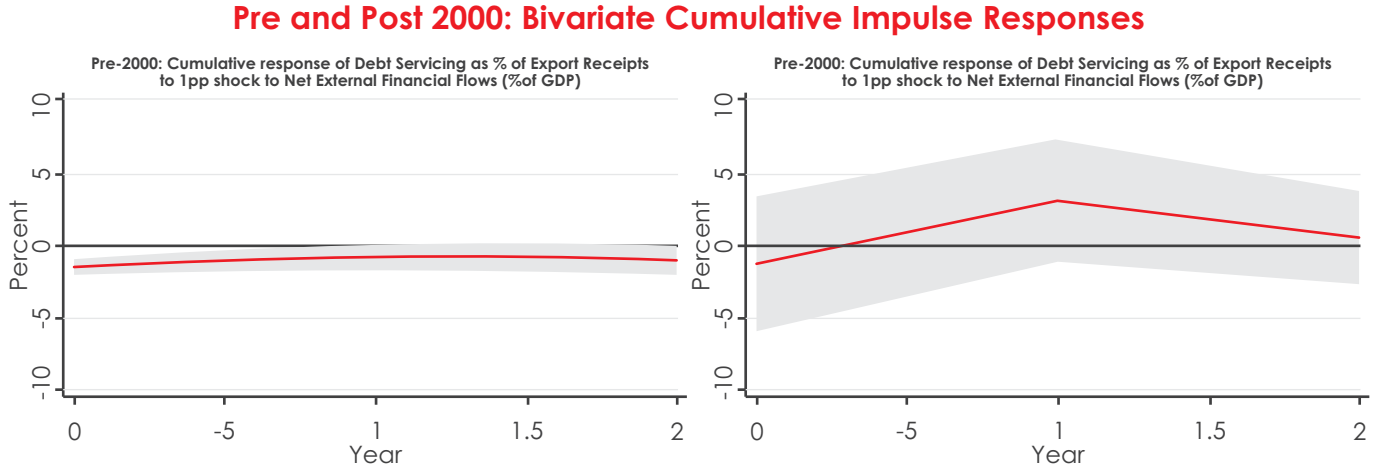
$$yi,t+k-yi,t-1= dtk+\beta k\ debti,tShock +\epsilon it$$

The left-hand side component $yi,t+k-yi,t-1$ is the k-period ahead change of one of the dependent variables. For instance, GDP growth rate will be one of the dependent variables. k goes from 0 to 3 to assess the short- and medium-term impulse responses to the exogenous debt shock in one of the two periods. i is the pre and post-2000 indicator. $debtit\ Shock$ is the exogenous shock on the external debt. dtk is the coefficient[7]. In order to determine optimal lag-order, varsoc will be used to see if more than 3 lags are warranted.

Instead of the OLS, the Newey–West regression pioneered by Whitney K. Newey and Kenneth D. West (1987) will be used[8]. This regression model will help us overcome autocorrelation and heteroskedasticity in the error terms which often pose problems for simple OLS regressions.

Interpreting the estimation results. Each chart has two panels. The x axis of each panel gives the period (any two years in chart B.6 over the entire period) for which the co-efficient value is plotted (red line). If the line is consistently below (above) zero, the estimated co-efficient value in any two-year period is negative (positive). The slope suggests how a one percent change in external debt affects the dependent variable over the two-year period. The shaded area gives the confidence interval for the estimates, which is set at 90% in all graphs.

Chart A.1: Debt Sustainability, Measured as Debt Servicing to Export- Earnings Ratio, Improving in the Pre-2000 Period, Worsened Post 2000.



Note: 90% Confidence Bands Displayed

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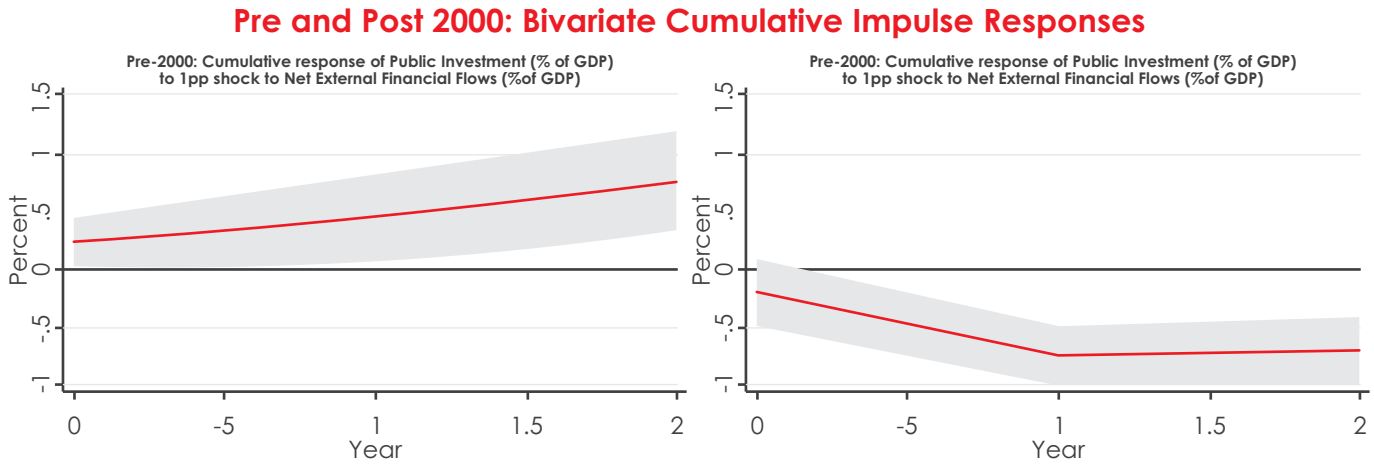
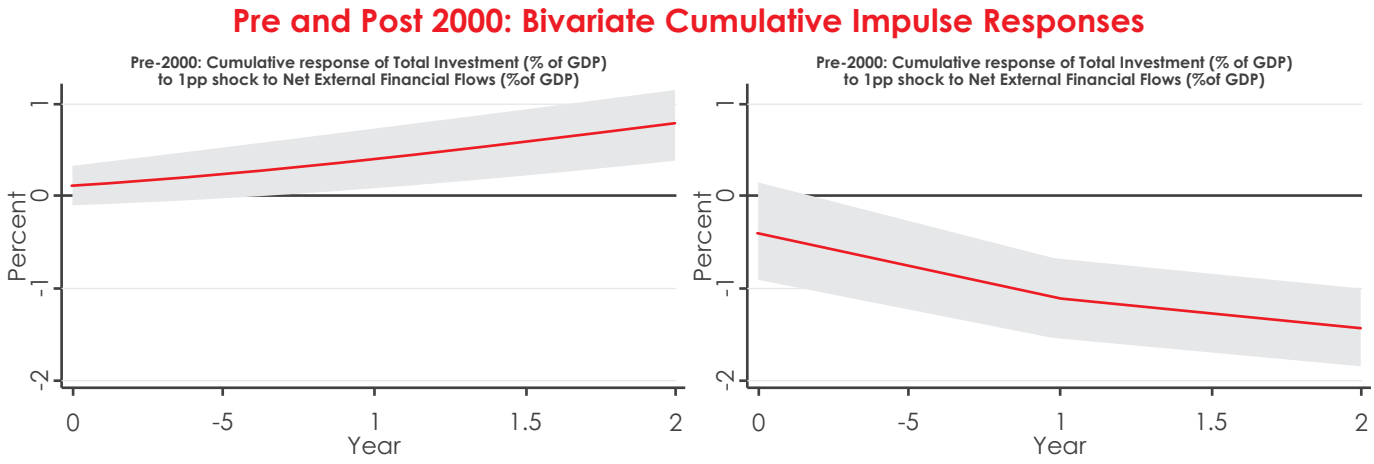
Chart A.2: Rising in the Pre-2000 Period, Fell Sharply Post 2000.



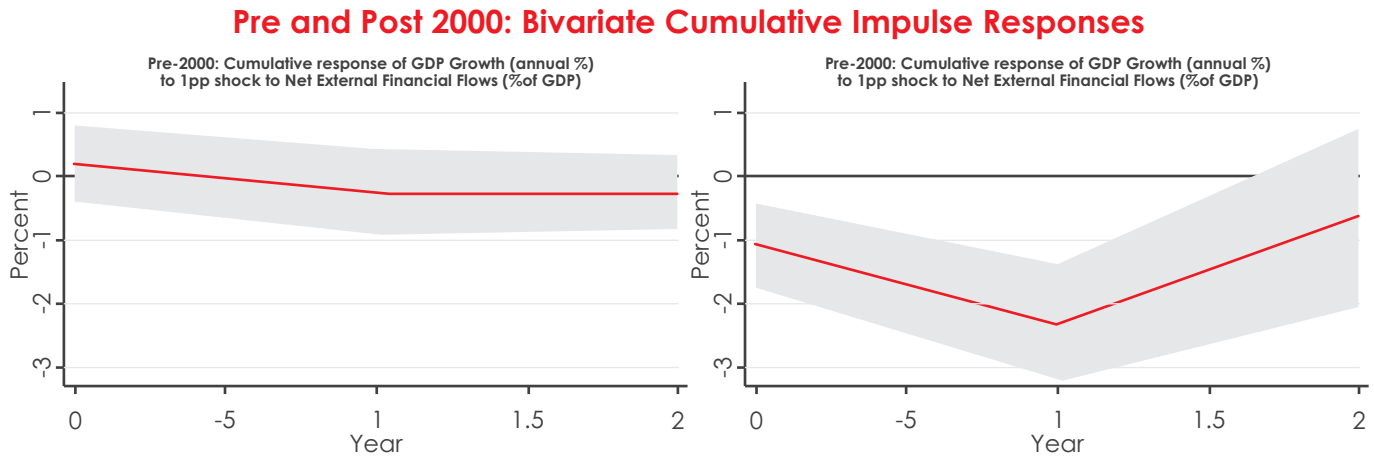
Note: 90% Confidence Bands Displayed

Chart A.3: ….As Did Total Investment.



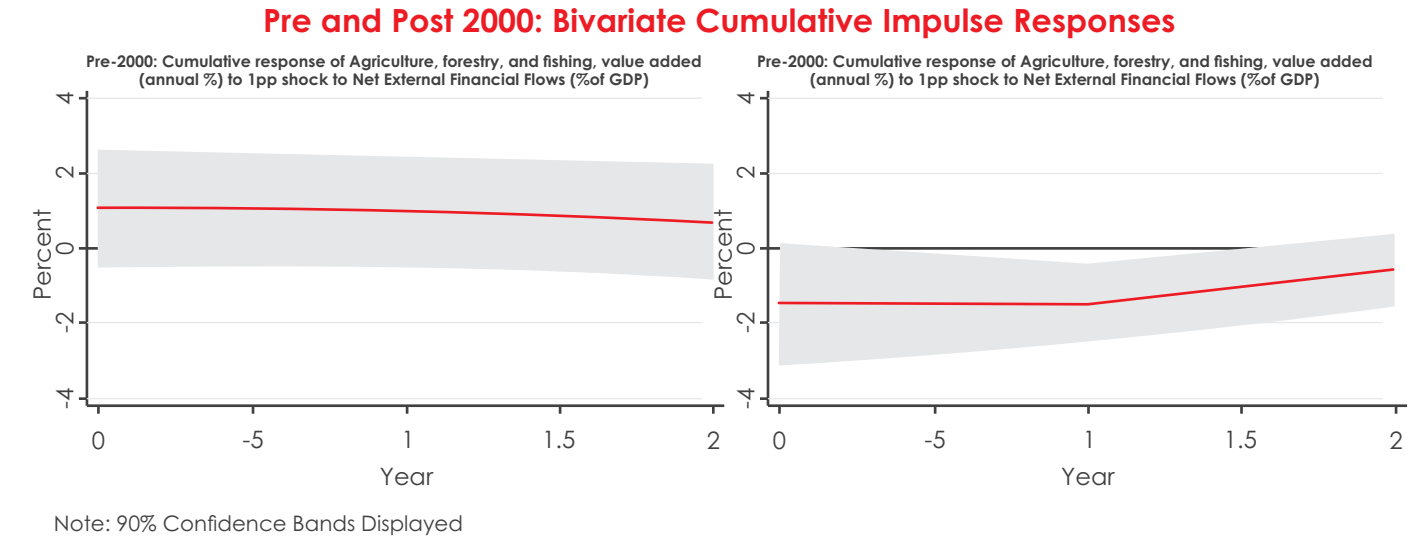
Note: 90% Confidence Bands Displayed

Chart A.4: Overall GDP growth rate was sharply lower in the post-2000 period.



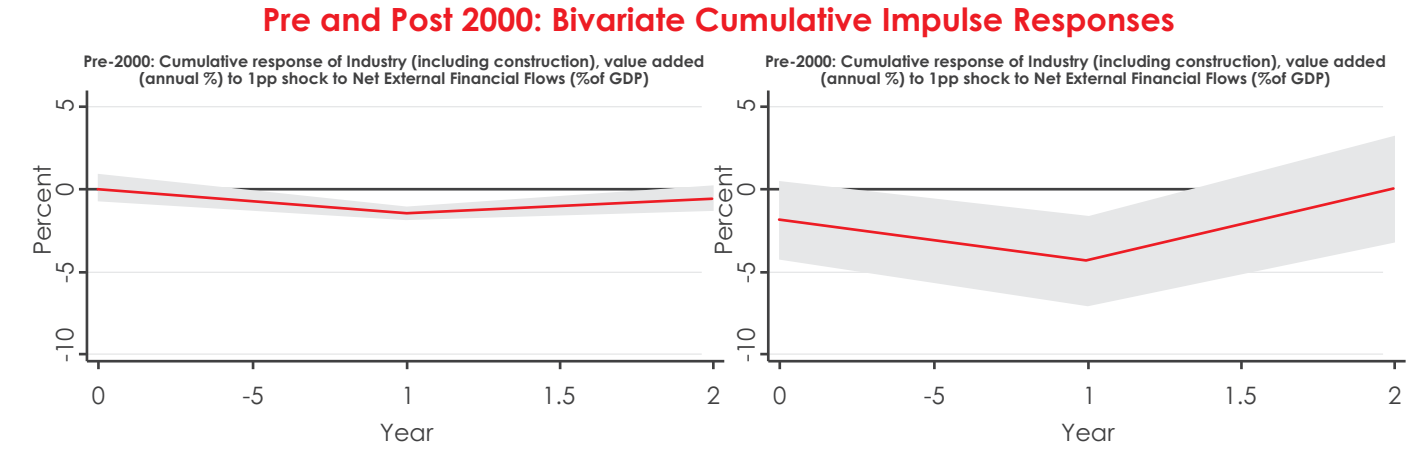
Note: 90% Confidence Bands Displayed

Chart A.5: …As Was Agriculture Growth.



Note: 90% Confidence Bands Displayed

Chart A.6 …. Which is Also the Case for Industrial Growth.



Note: 90% Confidence Bands Displayed

Annex B

Data Sources and Definitions

Series	Source	Explanation
Net External Financial Flows (current US$)	WDI	WDI. Net financial flows refer to new borrowings net of repayments. Sources include the following: IBRD, IDA, Regional Development Banks (covering both concessional and non-concessional arms), IMF, bilateral and other
Total External Debt Stocks (current US$)	WDI	Total external debt is debt owed to nonresidents repayable in currency, goods, or services. Total external debt is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. Data are in current U.S. dollars.
Current Account Balance (% of GDP)	WDI	Current account balance is the sum of net exports of goods and services, net primary income, and net secondary income.

Exports of Goods and Services (% of GDP)	WDI	Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.
Imports of Goods and Services (% of GDP)	WDI	Imports of goods and services represent the value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.
External Debt Stocks (% of GNI)	WDI	Total external debt stocks to gross national income. Total external debt is debt owed to nonresidents repayable in currency, goods, or services. Total external debt is the sum of public, publicly guaranteed, and private non-guaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. GNI (formerly GNP) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad.
Gross Fixed Capital Formation, general government (% of GDP)	WDI	Gross fixed capital formation (general government) includes publicly financed land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. It does not include GFCF of autonomous and semi-autonomous public sector institutions. It is calculated using WDI data (GFCF, total and GFCF, private). GFCF, private in the WDI data also includes GFCF of autonomous and semi-autonomous public sector institutions. Thus, the relevant series is obtained by subtracting GFCF, private from GFCF, total and dividing the difference by the GDP.
Net Financial Flows, Bilateral (Current US$)	WDI	Bilateral debt includes loans from governments and their agencies (including central banks), loans from autonomous bodies, and direct loans from official export credit agencies. Net flows (or net lending or net disbursements) received by the borrower during the year are disbursements minus principal repayments. Data are in current U.S. dollars.
Grants, Excluding Technical Cooperation (Current US$)	WDI	Grants are defined as legally binding commitments that obligate a specific value of funds available for disbursement for which there is no repayment requirement. Data are in current U.S. dollars.

Share of Credits in Net Financial Flows	WDI	Credits refer to the sum of net annual flows provided through the concessional arms of the World Bank (known as IDA) and of Regional Development Banks (principally the Asian Development Bank).
Short-term Debt (% of Total External Debt)	IDS	Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. Total external debt is debt owed to nonresidents repayable in currency, goods, or services. Total external debt is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt.
External Debt Ratio (Stock as % of GNI)	WDI	Same as the series 'External Debt Stocks (% of GNI)'
Debt Service Ratio (Claims as % Export Earnings)	IDS	Total debt service to exports of goods, services and primary income. Total debt service is the sum of principal repayments and interest actually paid in currency, goods, or services on long-term debt, interest paid on short-term debt, and repayments (repurchases and charges) to the IMF.
Debt Service on External Debt, Total (Current US$)	IDS	Total debt service is the sum of principal repayments and interest actually paid in currency, goods, or services on long-term debt, interest paid on short-term debt, and repayments (repurchases and charges) to the IMF. Data are in current U.S. dollars.
Exports of Goods and Services (BoP, Current US$)	WDI	Exports of goods and services comprise all transactions between residents of a country and the rest of the world involving a change of ownership from residents to nonresidents of general merchandise, net exports of goods under merchanting, nonmonetary gold, and services. Data are in current U.S. dollars.
Total Reserves in Months of Imports	WDI	Total reserves comprise holdings of monetary gold, special drawing rights, reserves of IMF members held by the IMF, and holdings of foreign exchange under the control of monetary authorities. The gold component of these reserves is valued at year-end (December 31) London prices. This item shows reserves expressed in terms of the number of months of imports of goods and services they could pay for [Reserves/(Imports/12)].
Personal Remittances, Received (Current US$)	WDI	Personal remittances comprise personal transfers and compensation of employees. Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from nonresident households. Personal transfers thus include all current transfers between resident and nonresident individuals. Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by nonresident entities. Data are the sum of two items defined in the sixth edition of the IMF's Balance of Payments Manual: personal transfers and compensation of employees. Data are in current U.S. dollars.

Personal Remittances, Received (% of GDP)	WDI	Personal remittances comprise personal transfers and compensation of employees. Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from nonresident households. Personal transfers thus include all current transfers between resident and nonresident individuals. Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by nonresident entities. Data are the sum of two items defined in the sixth edition of the IMF's Balance of Payments Manual: personal transfers and compensation of employees.
Debt Servicing as % of Export Receipts	PES 1999 -2000, PES 2021 -2022	
Public Investment (% of GDP)	PBS, WDI	Public investment (as % of GDP) has been calculated as follows: GFCF (general government plus public sector) at current market price divided by GDP at current market price. GFCF data was obtained from Pakistan Bureau of Statistics. GDP data was obtained from WDI.
Total Investment (% of GDP)	PBS, WDI	Total investment (as % of GDP) has been calculated as follows: GFCF (private plus general government plus public sector) at current market price divided by GDP at current market price. Total investment here does not include change in stocks. GFCF data was obtained from Pakistan Bureau of Statistics. GDP data was obtained from WDI.
Total External Debt (% of GDP)	WDI	Total external debt is debt owed to nonresidents repayable in currency, goods, or services. Total external debt is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. Calculated as follows: External debt stocks, total (DOD, current US$)/GDP (current US$)
External Debt Stocks (% of Exports of Goods, Services and Primary Income)	IDS	Total external debt stocks to exports of goods, services and primary income.
Terrorist Attacks, Pakistan	Global Terrorism Data-base™ (GTD)	Count of terrorist attacks per year.

Ratio of External Debt Growth Rate to GDP Growth Rate	WDI	Total external debt is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Debt growth rate calculated using the formula: (Y1-Y0)/Y0. Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2015 prices, expressed in U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Ratio calculated as follows: Debt Growth Rate/GDP Growth Rate