Revisiting the Constraints to Pakistan's Growth

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Abstract

This paper revisits the identification of the binding constraints to investment and growth in Pakistan by rigorously applying the growth diagnostic framework. It has a central finding: Pakistan's economy faces two major groups of constraints—emerging and structural. The emerging constraints include infrastructure (energy) deficit, high macro-fiscal risks, and inadequate international financing (high country risks and low FDI inflows). The structural binding constraints that persistently affect prospects of sustainable growth in Pakistan are low access to domestic finance, high anti-export bias, bad taxation system, micro risks (bad governance, excess business regulations, and poor civil service) and slow productive diversification.

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We would like to specially thank Reema Nayar, Cem Mete, Enrique Fanta Ivanovic, Mohammad Saqib, Muhammad Waheed and many other colleagues for providing access to data and related information. Preliminary data up to end FY 12 were used in elaboration. The process of 'structural transformation' may be referred as product diversification or self-discovery. Discoveries are the products/services that already exist in the world market, but are new to the export structure of a specific country.

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Introduction

1. The sustainable high growth remains a challenge for Pakistan, despite available potential. The increasing global competition requires Pakistan to catch up with the rest of the world. The county has the potential in the form of ideal geography, and abundant natural and human resources. Pakistan could immensely benefit particularly by expanding regional trade, which would also absorb its demographic dividend and avoid civil and political unrest. However, Pakistan's high growth potential is not being fully realized. The country has witnessed few growth spurts, which repeatedly pulled back, resulting into a declining long-term growth trend, which is also diverging from its main competitors. Even the structural reform efforts could not help sustain growth. This situation draws our attention towards the missing conditions that restrict Pakistan from achieving high and sustainable growth.

2. This paper identifies those missing conditions or major constraints to growth in Pakistan by using growth diagnostic framework. Broadly speaking the basic problem or reason of low growth is inadequate investment and entrepreneurial activity. These reasons stem from low private returns to economic activity and/or availability of finance. This leads to slow structural transformation of the economy[1], whereby the economy experiences low and declining export growth. This is an indication for the economy to improve its conditions to move to new higher value-added products–product diversification or self-discovery. The paper is organized as follows: it reviews past literature on constraints to Pakistan's growth and presents methodology of growth diagnostics. It then develops a thorough quantitative assessment of competing hypotheses on possible binding constraints to growth, and deepens empirical testing for self-discovery through an innovative tool. It concludes by providing recommendations for addressing the identified constraints and presents the ten principles for productive diversification policy

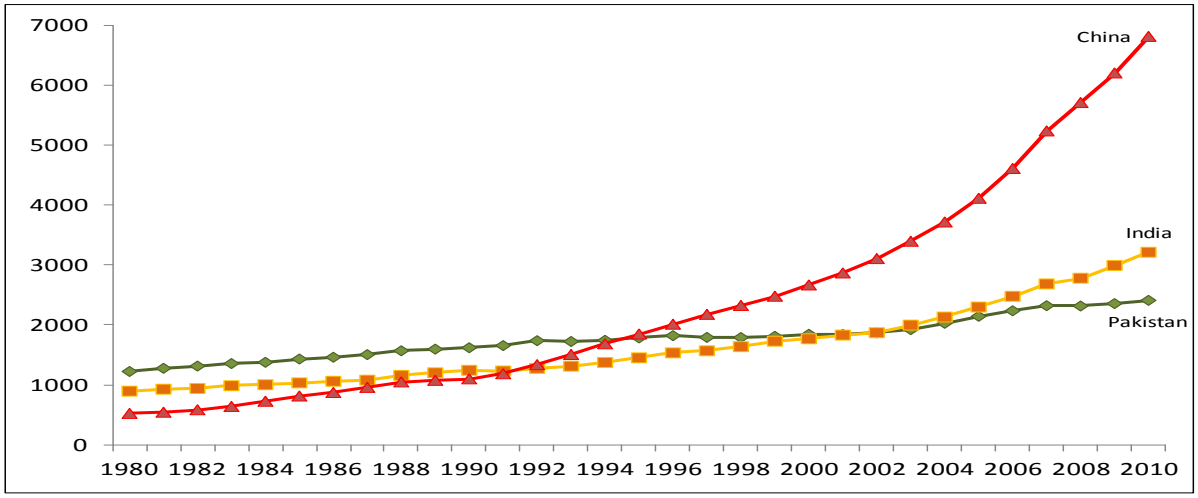
Stylized Facts about Pakistan's Growth

3. Pakistan's growth is diverging from its main competitors. Before mid-90s, the country enjoyed a reasonable growth of 2.5 percent GDP per capita per year for about 50 years, but afterwards it lagged behind its neighbors (Lopez-Calix, Srinivasan, and Waheed, 2012). In 2010, Pakistan recorded income per capita of USD 2,411 (PPP). Its neighboring country, India, with similar history, institutions, and to some extent resources, is reported to have surpassed Pakistan's per capita income level since the early 2000s (Figure 1; ratio between the incomes per-capita of India and Pakistan has increased from 0.96 in 2000 to 1.33 in 2010[2]). India's remarkable growth performance may be explained by (a) the strength of India's inter- and intra-sectoral shifts (India decreased its reliance on a volatile agriculture sector and increased its dependence on services), (b) capital accumulation and productivity; and (c) sustained policy shift towards export-led growth and trade liberalization, supported by industrial and services sectors growth (see Annexure 1 for details). Pakistan's other fast growing neighbor, China, had a per capita income about half that of Pakistan's about 30 years ago. But since early nineties, China's GDP has exceeded that of Pakistan, standing at USD 6,816 in 2010, about three times higher than Pakistan. Similarly, other competitor countries, e.g. Korea and East Asian countries have caught up with higher growth.

[1] The process of 'structural transformation' may be referred as product diversification or self-discovery. Discoveries are the products/services that already exist in the world market, but are new to the export structure of a specific country.

[2] All are current figures in Purchasing Power Parity

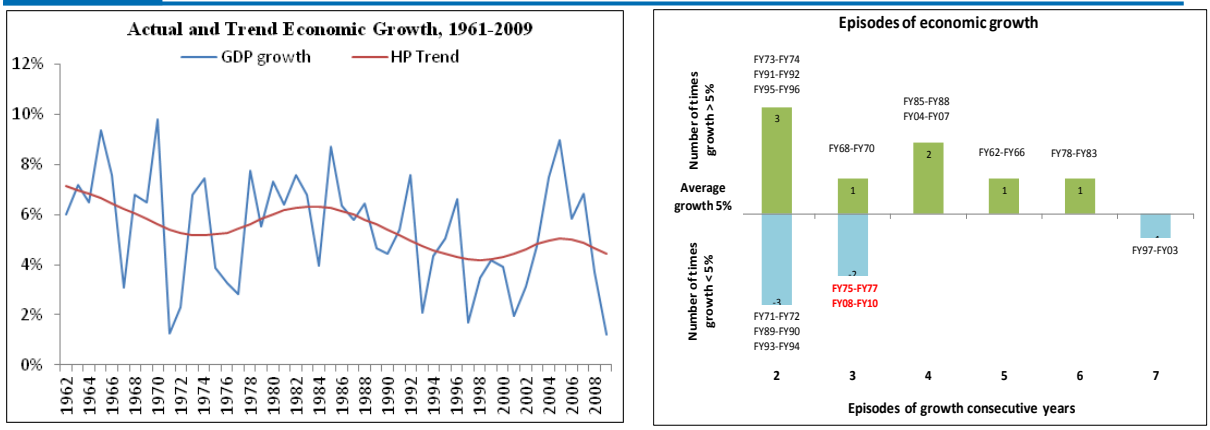
Figure 1 **Pakistan's Growth is Diverging from India and China** (PPP constant 2005 Int'l $)



Source: World Bank 2012a

4. The long-term growth presents a declining trend, despite few growth accelerations. Since 1960s, Pakistan's growth rate shows an overall declining trend (both in actual and potential), despite few high growth episodes (Figure 2), as the growth spurts lived only for a short period of time. The sustained growth accelerations (for more than 5 years of consecutive high growth rates) only happened twice since 1962, whereas, most of the growth episodes lived for less than 3 years. In particular, the present growth deceleration is quite severe and longest (5 years in a row) in Pakistan's history (Figure 2, right panel). Even more worrisome is the decline in potential growth rate from about 7 percent to 4.5 percent[3] (Figure 2, left panel), suggesting that the country's strengths have gradually eroded.

Figure 2 **Actual and trend economic growth and episodes of growth, 1961-2010**



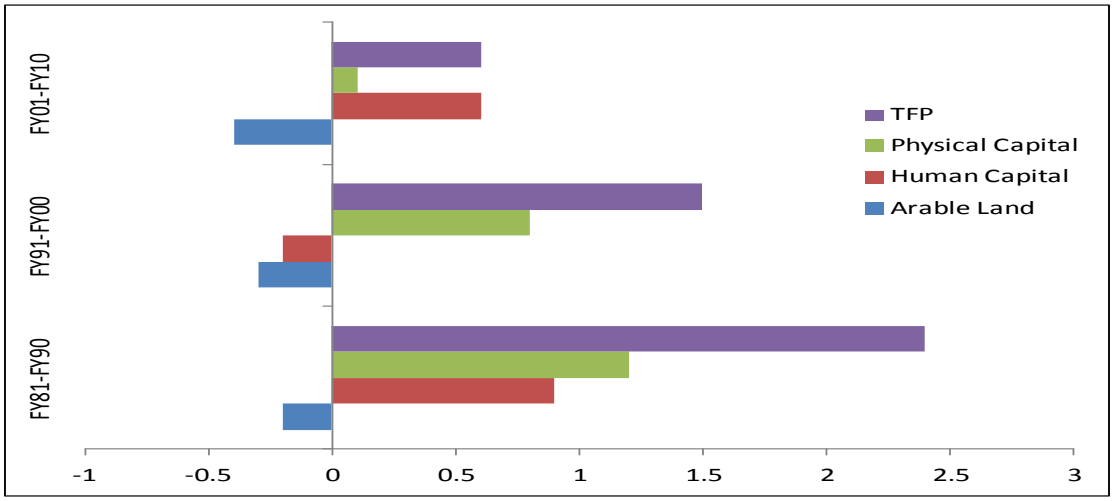
Source: Lopez-Calix, Srinivasan, and Waheed 2012; World Bank staff calculations.

5. The decreasing growth trend is accompanied by declining productivity, as revealed by the decomposition of growth determinants. The empirical findings of growth accounting

[3] To estimate potential growth, Lopez-Calix, Srinivasan, and Waheed (2012) used a simple linear trend (LT) and a more refined Hodrick-Prescott (HP) filtering technique. The findings suggest that (a) potential growth (LT and HP trends) has been falling over the past 50 years and (b) actual growth is below trend, i.e. the economy is underperforming.

models[4], applied on four factors of production (capital, labor, human capital [measured by years of schooling], and land [measured by arable land]), suggest that over last three decades growth in Pakistan has been mainly driven by labor and capital accumulation rather than productivity growth, as measured by Total Factor Productivity (TFP). The contribution of physical capital reduced from 1.2 percent in 1980s to a meager 0.1 percent in 2000s, in tandem with the dramatic fall in national investment rates[5]. On the other hand, labor force supply has been increasing, but labor productivity (output per worker) has been gradually declining, and as explained by Hausmann (2009), the growth shifted to employment creation exclusively focusing on agriculture sector. This resulted into the evolution of an economy that is intensive in unskilled labor employment and low productive jobs (Hausmann 2009), despite increase in human capital contribution in 2000s. The third factor of production, arable land showed negative contribution to growth, whereas, TFP contribution to growth averaged to 1.4 percent in 2000s (about one-fourth the level in 1980s) (Figure 3 and Figure 4), which is below regional average of 2 percent in East Asia (World Bank 2006a, 2010). The decline in TFP towards the end of last decade is generalized across all sectors of the economy (Lopez-Calix, Srinivasan, and Waheed 2012).

Figure 3 **Contributions of Sources of Growth (%)**

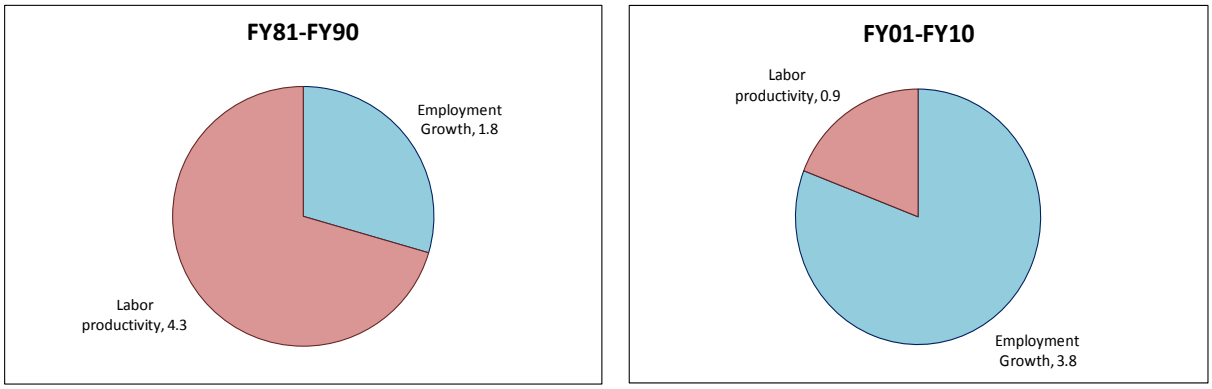


Source: World Bank staff elaboration based on Lopez-Calix, Srinivasan, and Waheed (2012).

[4] By using Solow growth accounting methodology, we can decompose the growth into extensive growth (capital accumulation, resulting from physical capital per worker or capital deepening, and growth of human capital per worker [education]), and intensive growth (Total Factor Productivity growth, resulting from efficient use of resources, technological progress and technology diffusion, learning-by-doing, and improved management of production activities).

[5] The investment to GDP ratio significantly fell from a peak 31.3 percent of GDP in the sixties to a bottom 18.4 percent of GDP in the 2000s.

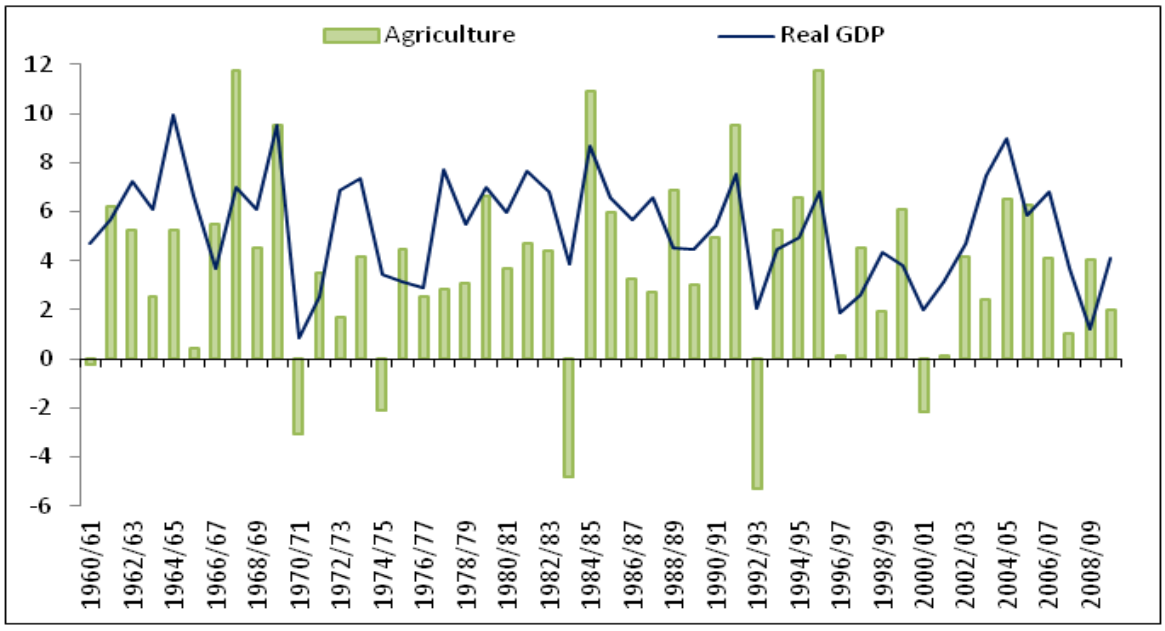
Figure 4 Employment Growth and Labor Productivity



Source: World Bank staff calculations.

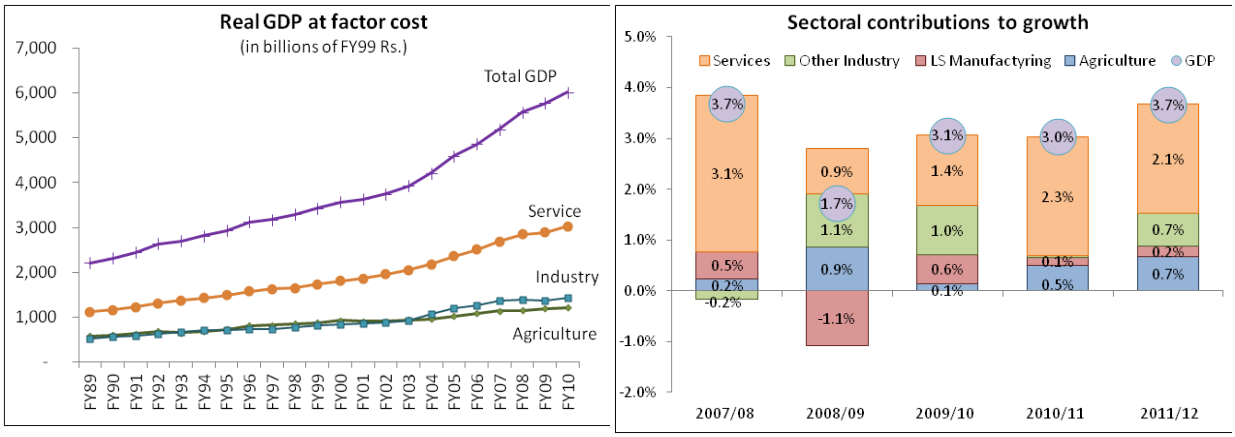
6. This situation can be related with falling productivity and lost dynamism, especially in agriculture sector which has implications for poor households. The unsustainable growth episodes of the country may be attributed to its heavy, though declining reliance on agriculture sector. Overall agriculture share in income has reduced from 42 percent in 1960 to about 20 percent in 2010, but there still exists high, though declining, correlation between agricultural and real GDP (Figure 5). On the other hand, the loss of overall growth potential also reflects upon slowing agriculture dynamism—evident from three-decade long standing trend. This is contrary to the rising dynamism in services, and gradually stagnating manufacturing sector (Figure 6). The volatility in agriculture sector growth, which is although about average and less than volatility in manufacturing sector (Table 1), has implications for the vulnerable income of poor households, especially those who have turned to non-farm and low skilled jobs (Institute of Public Policy 2012).

Figure 5 Correlations between Agricultural and Real GDP Growth Rates (%), 1960-2010



Source: Lopez-Calix, Srinivasan, and Waheed 2012.

Figure 6 Real GDP at Factor Cost and Sectoral Contributions to Growth



Source: Debowicz and others 2012, and World Bank staff calculations.

Table 1 Sectoral growth volatility, 1973-2011

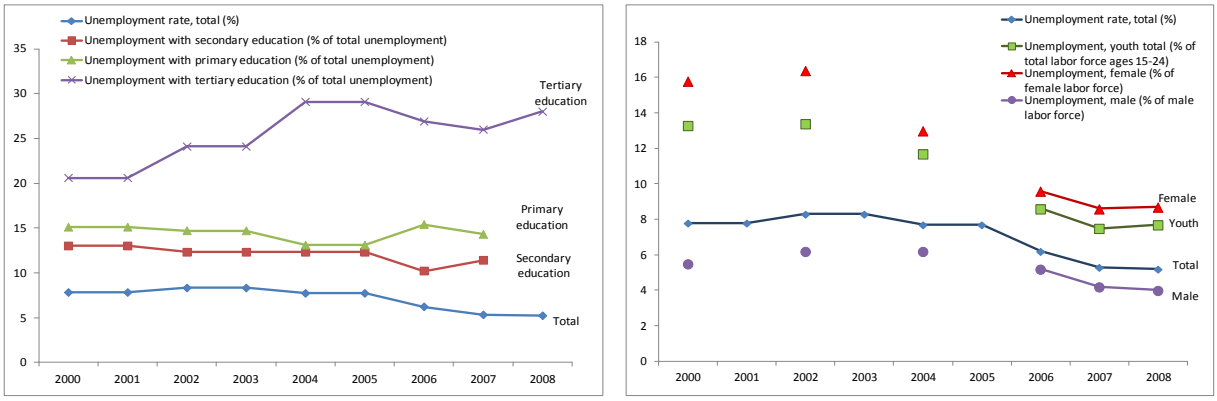
	Punjab	Rest of Pakistan	Pakistan
Agriculture	3.2	3.5	2.9
Industry	4.2	4.3	3.3
Services	2.2	2.2	1.9
GDP	1.9	2.2	1.8
National GDP (1980s)	--	--	1.4
National GDP (2000s)	--	--	2.5

Note: Above figures represent standard error around trend growth rate for the period 1973-2011.
Source: Institute of Public Policy 2012, and World Bank staff calculations

7. With changing demography, there is a great need for addressing the missing conditions that affect growth. Pakistan is caught between the situation of rapidly increasing population and creating jobs for them. The overall population of the country has risen faster (3.7 percent a year) than the regional average (3.1 percent), and it is expected to double its already young population by 2025. The increasing working age population is becoming urbanized, but access to basic social and infrastructure needs remains low[6] and the country continues to rank low on Human Development Index (145 out of 187 countries; UNDP 2012). At the same time, unemployment rates among youth and females are faring worst, and also affecting the higher educated (Figure 7). Total unemployment rate stood at 5.95 percent in 2010-11, up from 5.2 percent in 2007-08[7]. Many Pakistanis have moved to the Gulf, East Asian and Western countries, mostly to take up low-skilled jobs[8]. Their remittances (about 5.7 percent of GDP in 2011-12[9]) have helped reduce poverty, but only to a small extent (Inchauste and Winkler 2012), as the impact of these inflows on investment remains low (Gupta and others 2007, Khan 2009).

[6] Public expenditure on education and health sectors remains low in Pakistan. It accounted for respective 2.7 and 2.2 percents of GDP in 2009.
[7] Based on data from Government of Pakistan (2009a, 2012a).
[8] About 97 percent of Pakistani workers moved to Gulf/Middle East in 2007 (PILDAT 2008).
[9] World Bank staff calculations based on data from State Bank of Pakistan (2012a), and Government of Pakistan (2012b).

Figure 7 **Pakistan's Unemployment Rate (percent), 2000-2008**



Source: World Bank 2012a, International Monetary Fund 2012a.

A Brief Literature Review

8. The constraints to Pakistan's growth have been extensively reviewed in literature with numerous findings, giving rise to a prolific debate. Chronologically, the results of different studies suggest that for the period before 2000s, most prominent constraints were low human capital, inadequate infrastructure, weak institutions, poor macroeconomic management, environment and gender issues. For the period after 2000, the main constraints identified during this period are political instability, bad governance, and institutional shortcomings; macroeconomic instability; trade imbalances due to trade protectionism; low productivity in agriculture; and inadequate infrastructure investment leading to severe energy crisis. All these broad results, spread over a span of two decades, are taken into account in this paper.

Literature before 2000s

9. Sadiq Ahmed (1991) cautioned that short-run spurts and collapses should not prejudice understanding of long-term fundamentals of growth: he singled out low human capital formation as the most critical constraint.

10. Fardoust (1998) identified Pakistan's main challenges in the form of insufficient human capital and infrastructure investment, weak institutions, poor macroeconomic management, and inadequate attention to population, environment and gender issues.

Literature after 2000

11. Husain (2004) highlighted that growth and poverty reduction efforts continued to be undermined by political instability, bad governance, poor functioning institutions, and weak social and human capital.

12. World Bank (2006a) identified structural constraints to Pakistan's export competitiveness, including macroeconomic instability, infrastructural bottlenecks, inadequate supply of educated and skilled manpower, issues with factor markets, weak economic governance, protectionist trade policy, and low quality of food and safety standards (for exports).

13. Burki (2007) found that on the economic front constraints to growth are insufficient physical infrastructure and bad governance. He maintained that Pakistan had not properly tapped its positives/potential, for which it had to pay huge economic costs in the form of recurrent growth pull-backs.

14. Qayyum and others (2008), used a growth diagnostic approach, utilizing data for FY 1997–FY 2006, and found that the investment within certain band was insensitive to savings, because economy was not constrained by low savings (using low/negative interest rates as criteria). So the high cost of finance was ruled out as a binding constraint to growth. Under the low appropriability constraints, the authors identified poor governance as a binding constraint to growth due to institutional failure in implementing laws, and in performing regulatory and supervisory roles (lack of enforcement of collateral laws, weak land titles, weak central bank, and weak capital market regulations, poor quality public educational institutions and inflexible labor markets), and rampant corruption. On social

returns part, the authors identified overall infrastructure of the country as satisfactory despite electricity shortages.

15. Favaro and Koehler-Geib (2009) identified Pakistan's post-2008 conditions to include deteriorating law and order situation, low tax revenue collection, electricity shortages, low level of education, low productivity in agriculture and low level of value-added exports. Growth lost momentum after 2007 with the return of fiscal and current account deficits, mainly because the economy continued to have structural problems or constraints in the form of low tax revenue collection, increased electricity shortages, low agriculture productivity, low level of manufactured exports, and inadequate human capital.

16. Felipe and others (2009) found that growth rate above 5 percent per year is constrained by balance-of-payment (BOP) due to its structure of exports. The evidence from authors' analysis suggested that Pakistan's growth rate, consistent with BOP equilibrium rate, is approximately 5 percent per annum, which is below the long-run target rate of GDP growth of 7-8 percent per annum. Moreover, given the difficulty of attracting substantial capital flows, the economy is found to be dependent on different components of BOP to such an extent that even with steady growth of exports, with relative short-run decline in remittances, the real effective exchange rate or the terms of trade could plunge Pakistan into BOP crisis.

Methodology for Identifying Binding Constraints to Growth

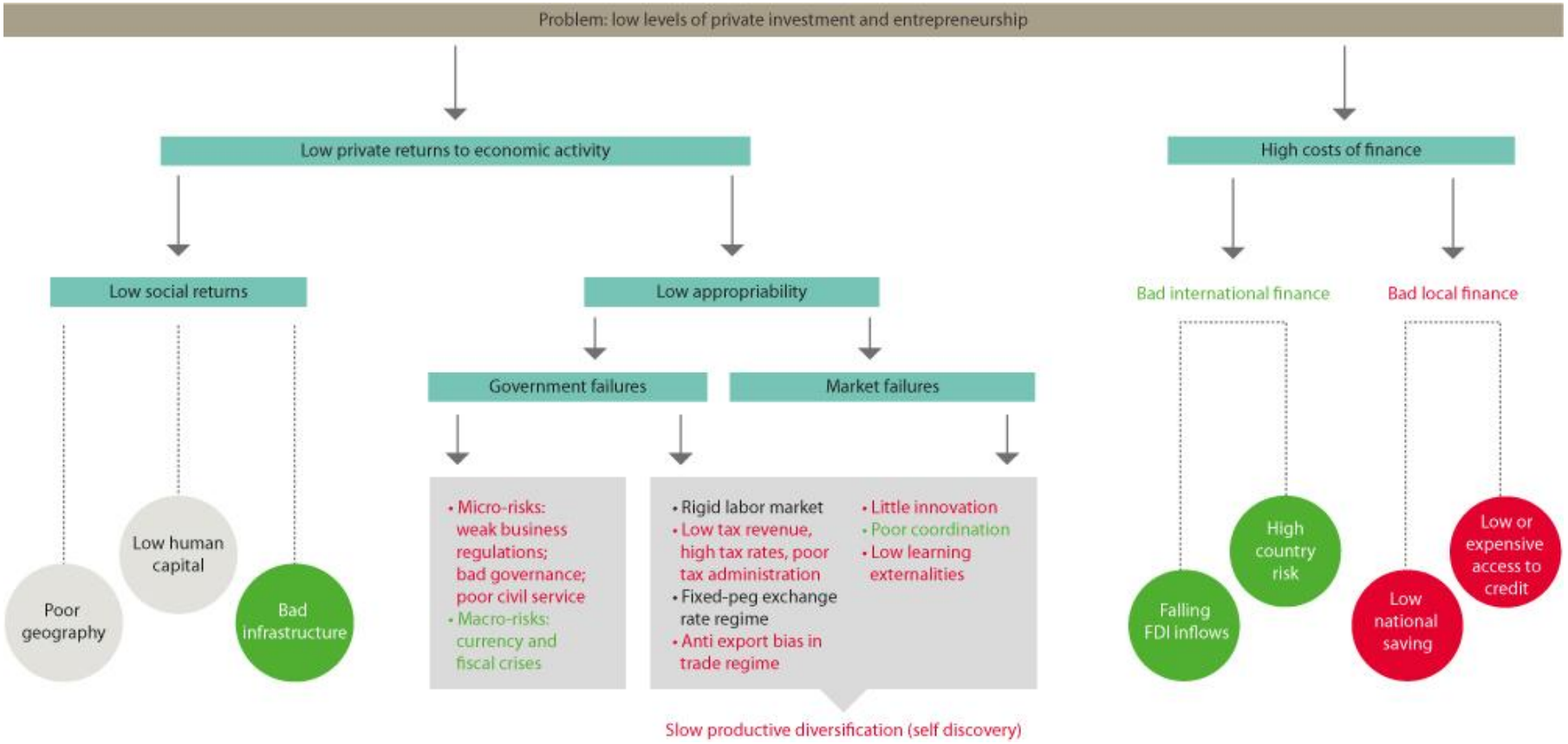
17. This paper identifies growth constraints. Methodologically, the paper follows four iterative steps: growth inquiry, hypotheses, diagnostics, and policies (for details see Annexure 3).

1. The first step reviews the existing literature on Pakistan's growth, and inquires about *potential drivers and constraints to growth*. This step groups the findings of existing literature (as reviewed in the previous section), under three types of binding constraints: (a) *low social returns* to factors of production (human capital, technical know-how, infrastructure, or poor geography); (b) *poor private appropriability* (high taxation, poor property rights, and contract enforcement, labor–capital conflicts, or poor learning and coordination externalities); and (c) *financing constraints* (low savings, poor intermediation in domestic financial markets, or poor integration with external financial markets). This can be conceptualized in the form of a decision tree (Figure 8), by assuming output to be generated by a set of factors of production, including physical and human capital per worker, geography, infrastructure, institutions, productive diversification (self-discovery) and so forth. The main underlying assumption is that all these factors of production are complements.

2. The second step proposes at least three hypotheses about the binding constraints to growth. Previous literature already suggests some of them. This step is developed simultaneously with the third step, which examines each hypothesis in full detail against empirical evidence to diagnose its validity as a binding constraint. This is the so called process of 'differential diagnosis' to determine if a constraint is binding. In this regard, (a) comparing the rate of returns—for example, shadow prices—of the factors of production; and (b) judging what changes in the supply of a factor(s) should have larger effects on growth. The idea is that if one of these factors is the binding constraint, its rate of return would be very high, but it would drive down the returns on other factors of production. This implies that because low returns on some factors of production are observed, it must be the case that something else—linked to low social returns, poor private appropriation or financing conditions—with a high rate of return—is constraining growth and driving down the returns of other factors under discussion. For the analysis, findings of Investment Climate Assessments (ICAs) and Doing Business (DB) also prove useful. Moreover, to achieve full formulation of the hypotheses, and refine their implications, different rounds of in-country consultations with officials, key economic agents, and academicians were held in 2011 and 2012.

3. Finally, the fourth step concludes and considers possible policy actions to alleviate key constraints identified in step three. The discussion on preliminary findings and possible actions will feed into rich policy discussions with officials.

Figure 8 **Growth Diagnostic Decision Tree on the Main Constraints to Growth in Pakistan**

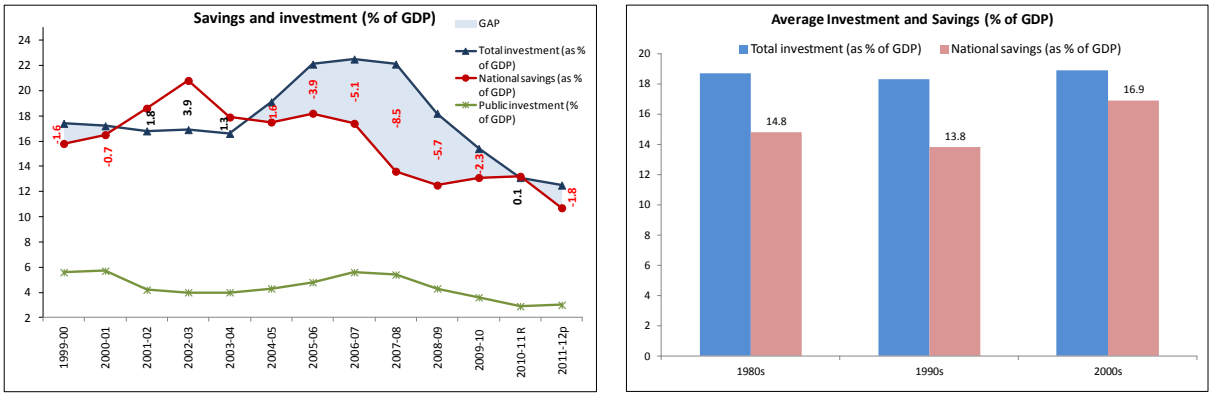


Growth Diagnostic: Weighing Alternative Hypothesis

Low Savings and Investment Levels

18. Pakistan's national saving has always been low, and since the mid-2000 it has been declining. The national savings increased in early 2000s due to improved macroeconomic environment and increased inflow of remittances, and then declined with the consumption boom of 2005-06. Later the savings rate fell even faster because of security concerns, political instability, declining tax revenue, and related fiscal imbalances, despite even stronger remittances (Figure 9, left panel). At 10.7 percent of GDP in fiscal 2012, savings were about half its position in fiscal 2003 (20.8 percent of GDP) and several times lower than average saving rates in India (31 percent of GDP) and China (47 percent of GDP) during the 2000s[10]. These high levels of savings in China and India have supported their investment and economic growth. Whereas, in case of Pakistan low (national) savings appear as a structural binding constraint to investment in the country.

Figure 9 Pakistan's National Savings and Investment Rates (percent of GDP)

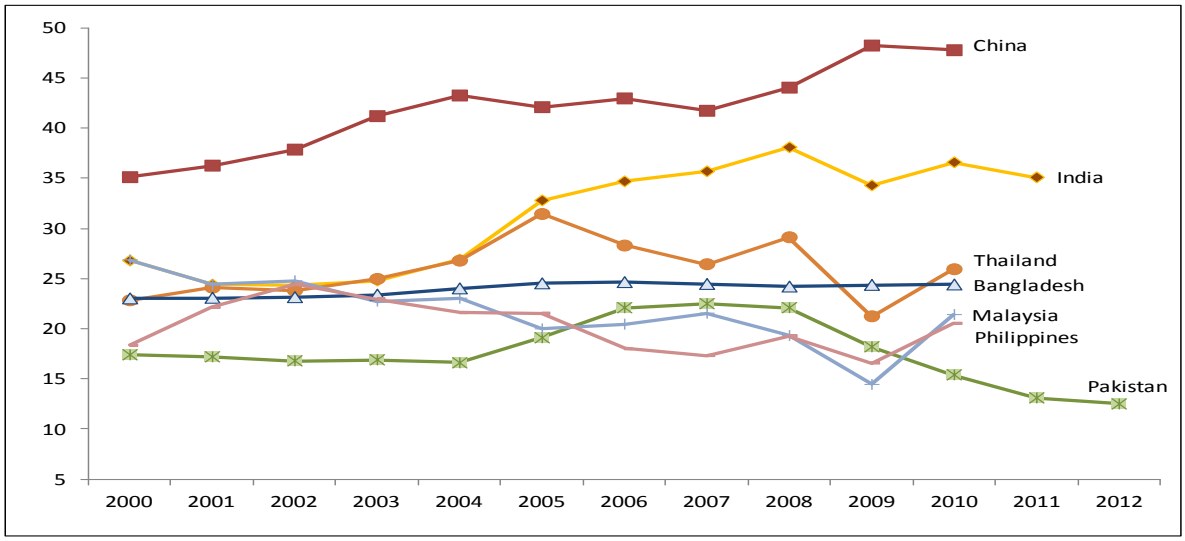


Note: Calculations are based on GDP current at market price. Total investment incl. fixed investment (public and private investment) and changes in stock. R is revised; P is provisional
Source: World Bank staff calculations based on Government of Pakistan (2012b).

19. The investment rate is very low for growth acceleration needs. The national savings rate is the share of output dedicated to building up the country[11]. Theoretically, an increase in savings is expected to increase investment and growth, which could take place temporarily or permanently[12]. However, in case of Pakistan, this has happened moderately during last decade, as there appears to be low association between savings and investment. A rather short-term take off in investment around mid-2000s was followed by continuous downfall. Pakistan's total investment as share of GDP has dropped from a peak 22.5 percent in fiscal 2007 to 12.5 percent in fiscal 2012 (with reduction in the availability of foreign funds). This rate of investment is recorded as lowest during last decade, and in comparison with other countries–about three to four times lower than in India and China (Figure 10 and Figure 11).

[10] In a remarkable shift, more than half of current national savings are based on remittances—up from less than a third in the early 2000s.
[11] This share can be consumed or used for capital investment (less the share of foreign borrowings). Savings used to finance investment is an encouraging indicator of economy. However, if most of the investment is financed by foreign borrowings rather than own savings, there could be difficulties ahead (World Bank 2006).
[12] See Klenow and Rodriquez-Clare (1997) for neoclassical growth models and Howitt (2000) for literature on endogenous growth.

Figure 10 **International comparison of gross domestic investment** (% of GDP), 2000-2012



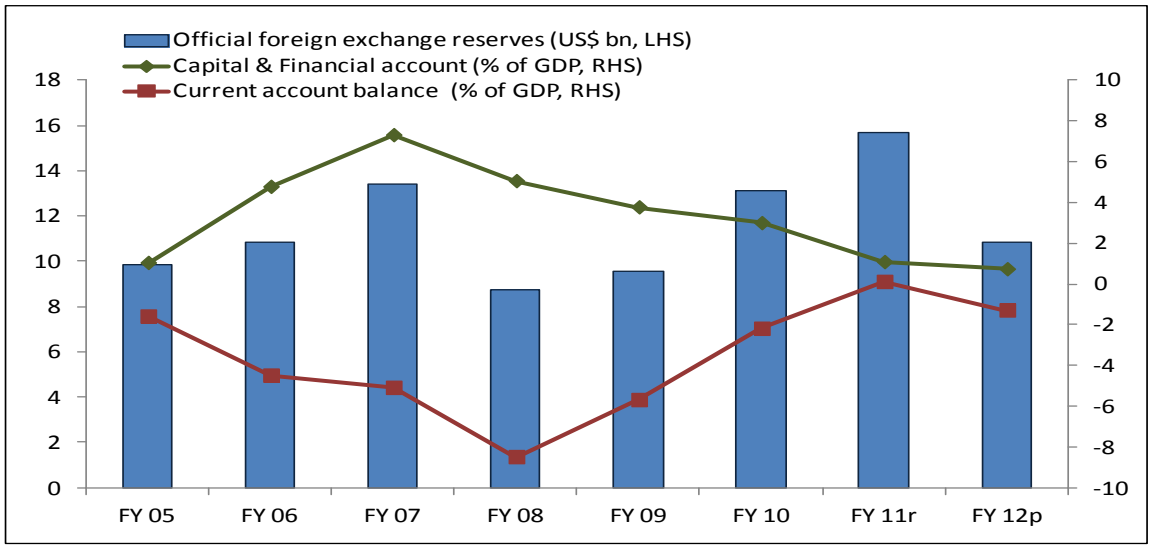
Note: Figures for India and Pakistan relate to fiscal 2000-11 and fiscal 2000-12, respectively. Fiscal 2011 figures for India are estimates, and Pakistan's figures for fiscal 2012 are provisional. The calculations are based on GDP current at market price.
Source: Government of Pakistan 2012b; Government of India 2012; and World Bank 2012a.

20. Main reasons for low saving and investment position are low tax revenue and high non-development expenditure. Tax revenue of Pakistan is the lowest in the world, most of which is used for current expenditure (current expenditure accounted for 16 percent of GDP in fiscal 2011 as compared to 2.8 percent development expenditure). In particular, subsidies for non-performing public sectors, security, contingency expenditure, and increasing salaries crowd out productive public spending.

21. In this situation, financing the gap relies on net foreign resource inflows. With low saving rates, investment relies on volatile foreign financial inflows or the reserves get depleted. This is reflected in the current account deficit[13] position of Pakistan during last decade: savings increased with current account turning into surplus, and declined with negative interest rates and current account deficits. The current account deficits together with declining financial/capital account surplus (owing to reduction in foreign investments), has deteriorated country's overall external account. For long-run increase in investment, Pakistan would need to finance its investment by raising its own national savings, in order to increase employment as well as increase resource availability for investment. So, in order to be able to address the big question as to why (national savings and) investment rates are chronically low, we have to dig deep into supply and demand related issues.

[13] The foreign savings, needed to finance the saving-investment gap, reflects the current account deficit in the balance of payments.

Figure 11 Current Account Balance, Capital Balance & Reserves Position, 2005-12



Note: Nominal GDP at Market Price used as denominator for capital and financial balance calculations. Reserves figures relate to June-end each year.
Source: World Bank staff calculations based on Government of Pakistan (2012b), State Bank of Pakistan (2012a).

22. It is important to understand why investment rate is low in Pakistan. There may be two possible reasons for investment decline: (a) inadequate sources of savings, or (b) lack of high returns generating opportunities. If (a) was true, returns on capital would be high because of the scarcity of this factor. So, the investment would exceed domestic demand and foreign savings constrained. And in case of (b) investment would be low in spite of ample access to finance at comparatively low interest rates. Clearly, this behavior requires deeper analysis, leading us to the decision tree (Figure 8), i.e. finding the culprit/s from either (or both) high cost of finance and low private returns.

23. According to International Monetary Fund (2012b), shrinking public investment has mainly to do with declining government resources against rising current expenditure demands. At the same time, decline in private investment is due to political and economic uncertainty, issues with the supply of credit, crowding out by public sector, and infrastructural bottlenecks (International Monetary Fund 2012b). Further, lack of developed markets to direct savings for good investments, and balance of payment volatility are other reason, as indicated by the Government of Pakistan (2011a).

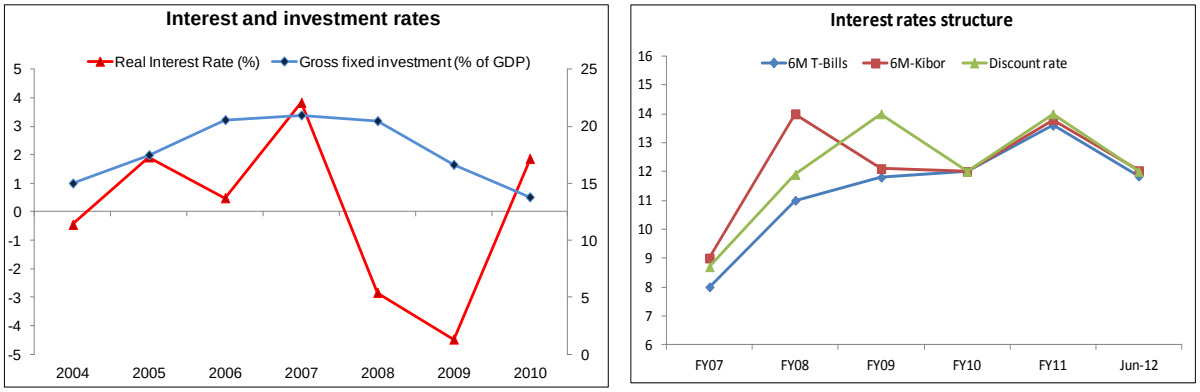
Low Access to finance

24. Low access to domestic and international finances constrains investment and growth in Pakistan. If high financing costs were the problem, Pakistan would have very high real interest rates, a large current account deficit, and entrepreneurs ready to invest. But this has not been the case. Domestic real interest rates have lately been mildly positive, the current account deficit has been average by international standards, and private investment has been falling. But what really puts domestic finance out of reach for the entrepreneurs is weak financial intermediation, high collateral requirements, and financial illiteracy. On external front, the country faces emerging challenge of increasing country risk that has reduced inflows of foreign direct investment. This situation presents a gloomy picture of financial constraint in Pakistan despite huge demand.

Domestic Financing

25. The average interest rates, in real term, are positive and increasing. During the pre-crisis period of 2004-07, total investment increased despite rising real interest rates (in the middle of consumption boom). By end period, real interest rates remain marginally positive, but total investment has decreased (Figure 12) as credit to the private sector has shrunk. This is a discouraging sign for firms participating in credit market. A closer look at interest rates structure indicates reason for less availability of credit to private sector: at attractive short-term rates, most of commercial bank lending has turned to purchasing government bonds (Figure 12, right panel). These are used to finance high fiscal deficits.

Figure 12 Pakistan's Interest Rates (%)

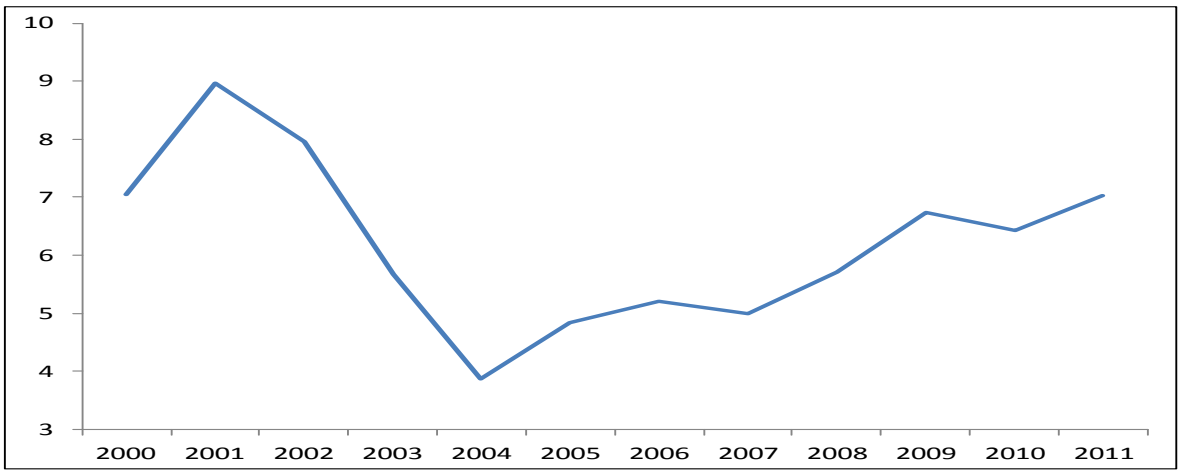


Source: World Bank 2012a, and State Bank of Pakistan 2012a.

26. While, high interest rates do not appear to be a binding constraint, high intermediation costs are. Large and rising interest rates spread suggest that competition is weak and the administrative efficiency of commercial banks is poor (Figure 13; Table 2). Pakistan's domestic interest rates spread averaged 650 basis points over a two-year period through September 2011, which is considered to be falling in rather high range, being almost the same as in Indonesia, and a little lower than Greece (International Monetary Fund 2012b). The reason for wide spread may be attributed to low deposit rates, high lending rates, or both. In Pakistan deposit rates are low because most deposits are held in banks for transactional purposes; personal savings are placed elsewhere (Box 1), especially in rural areas where people avoid banks due to financial illiteracy. The lending rates are relatively high due to commercial banks' strong preference for holding government securities[14] over riskier corporate debt or personal lending and lack of other borrowing alternatives, such as a well-developed capital market. This particularly affects small and medium businesses due to insufficient retained earnings over expensive commercial bank loans to cover their financial needs.

[14] The reasoning may also work in other direction, i.e. increasing holding of government securities and large share of rate-intensive deposits by banks may be driving the wide spread.

Figure 13 Interest Rates Spread (percentage points), 2000-2011



Source: State Bank of Pakistan 2012a

Table 2 Nominal Interest Rates & Inflation (Weighted Average and Annual, %),

Year	Lending rate[a]	Deposit rate[a]	Interbank rate	Inflation, consumer prices (annual %)[b]
2000	12.9	5.9	10.9	3.6
2001	14.0	5.0	9.3	4.4
2002	12.1	4.2	4.8	3.5
2003	7.6	1.9	0.9	3.1
2004	5.1	1.2	1.5	4.6
2005	8.2	3.4	6.9	9.3
2006	9.9	4.7	7.4	7.9
2007	10.3	5.3	7.8	7.8
2008	12.8	7.0	13.6	12.0
2009	14.3	7.6	11.4	20.8
2010	13.2	6.8	11.0	11.7
2011	14.3	7.2	12.4	13.9

Note: All figures are of June each year (6/2000–6/2011), except for inflation.
a/ Includes interbank rates, as compilation of rates excluding interbank started from January 2011.
b/ Inflation figures are reported as fiscal year.
Source: State Bank of Pakistan 2012a; Government of Pakistan 2012b

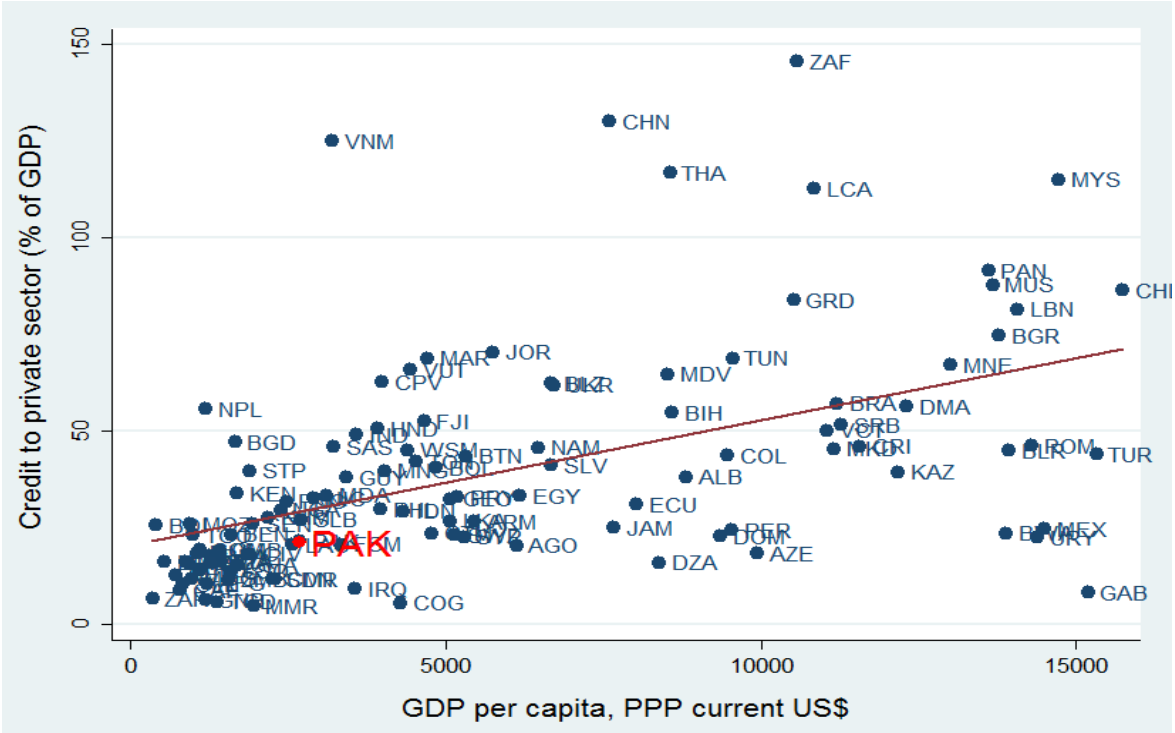
Box 1 Available Alternatives to Bank Deposits in Pakistan

- National Saving Schemes (NSS) is an attractive alternative to bank deposits, but may be hurting development of capital markets with high lending rates (creating distortion in interest rate structure), no upper limit on investment, no management fee, no redemption penalty and no tax implication.
- For capital market development managed funds are an alternative to NSS but face several challenges to growth: tough competition with NSS on fees and liquidity; fragmented and mostly unfunded pension system; frequent losses at stock markets lead to failure of many funds and loss of confidence in them; and provision of corporate tax.
- Equity market: although listed market is deep and liquid with low taxes on equity investment, but there are problems with transparency of listed companies, which drives the funds to unlisted companies for better share.
- Insurance industry is relatively insignificant in size and dominated by state-owned life insurer.
- Commodity futures: Pak Mercantile Exchange has developed futures contracts for gold and silver, agricultural products (wheat, rice, palm oil), crude oil and three months KIBOR. But it faces storage and delivery problems for agricultural products, impartial grading for commodities, and differences between local weights and measures and international standards.

Source: International Monetary Fund 2012b.

27. Further evidence suggests that domestic financing constrains Pakistan's growth due to lack of financial depth[15]. The cross-country analysis of credit availability to private sector relative to income per capita places Pakistan below average, lower than Bangladesh, India and Sri Lanka (Figure 14). Credit to private sector declined from about 28 percent of GDP in fiscal 2007 to about 16 percent of GDP in fiscal 2012. Barely 8 percent of the population puts their savings in financial institutions. As a result, Pakistan has the lowest financial depth ratio[16] among leading emerging economies (Government of Pakistan 2011a). Only about 14 percent of the population uses financial products or services—including savings, credit, insurance, payments, and remittance services (Figure 15, left panel). Many are averse to formal debt, especially in poor and rural households. About 3 percent of poor households borrow from financial institutions, and only 15 percent of farmers have access to credit through the financial system. About half the population uses informal financial mechanisms (shopkeepers, moneylenders, hawala/hundi, and money transfers). The remaining 36 percent do not engage in either formal or informal financial transactions. Such high financial exclusion not only exposes individuals and businesses to the risks of fluctuating income, but also raises their operating costs and depresses future investments (World Bank 2009a).

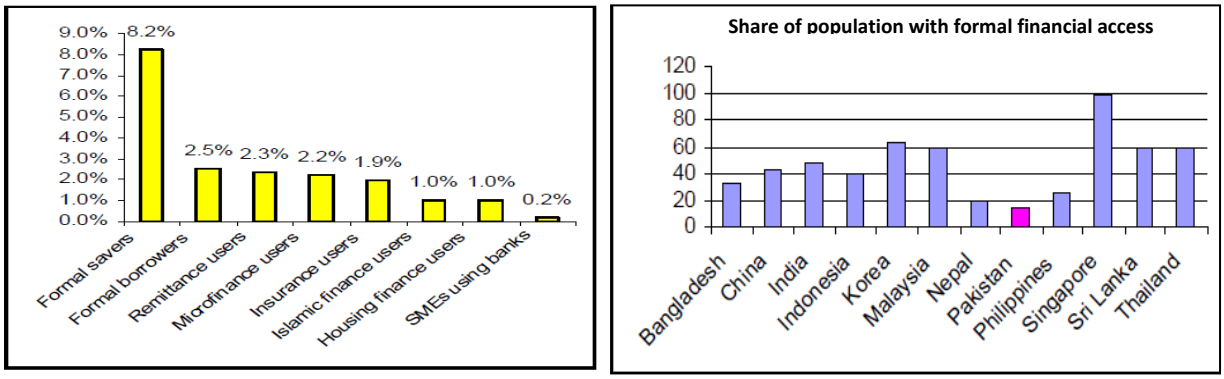
Figure 14 **Level of Credit Availability, 2010**



Source: World Bank 2012a

[15] For example, a well-developed financial system has been found to have a positive impact on poverty reduction and economic development (Beck and others 2004, and Honohan 2004), as it helps in increasing opportunities with efficient distribution of resources (Rajan and Zingales 2003).
[16] M2/GDP.

Figure 15 **Formal Financial Access for Pakistan's Poor**



Source: World Bank 2009a

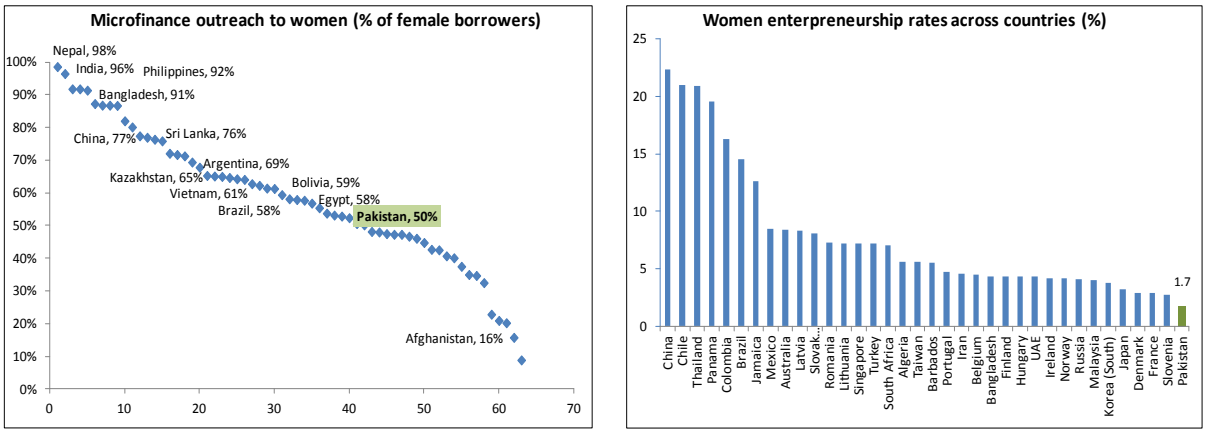
28. Access to credit is hardest for Small and Medium Enterprises (SMEs). The access to finance is important at this micro level of businesses, which are the growth engines of Pakistan's economy—SMEs make up about 90 percent of private enterprises in the industrial sector, employ 78 percent of the non-agriculture labor force, and contribute more than 30 percent to GDP. Yet lending to these firms, at 16 percent of total lending, is less than the demand. Main reasons are lack of enabling legal and regulatory environment and poor administrative capacity within the SMEs[17]. Financial market imperfections—such as informational asymmetries, transaction costs, and contract enforcement costs—are particularly binding for small and medium enterprises, which lack collateral, credit histories, and connections (World Bank 2009a). By preventing small entrepreneurs from financing high-return investment projects, such credit constraints reduce the efficiency of resource allocation and slow growth and job creation. The Investment Climate Assessment (ICA) 2009 findings also point at pockets of weakness in the financial system (processing fees, shorter terms of loans with larger loan sizes, and high collateral requirements). The report confirms that despite regulatory efforts of the central bank, the share of lending to SME sector has declined between 2004 and 2007, mainly due to deficiencies in financial institutional framework and firms' own decision of opting out of formal financial system (World Bank 2009b). On the other hand, economic and cultural factors such as poverty, financial illiteracy, and religious beliefs also restrict better access to finance in Pakistan. As a result, most of the small firms prefer to obtain financing from internal funds (retained earnings), use informal sources, or do not borrow at all (World Bank 2009a).

29. Financial outreach is inadequate for women entrepreneurs—an opportunity being missed out. In Pakistan, women run mostly small businesses and cottage industries, and access to credit is important for setting-up and running their business. They have high demand for credit, rated better at credit risk and create greater social spill over for the money lent to them as compared to men. This situation presents women entrepreneurs as a perfect target for microfinance jobs creation (World Bank 2012c). But this opportunity is being missed out by a huge margin, as access to finance for women has been very slow in Pakistan and remains less than its regional peers. The women borrowers in Pakistan account for only 50 percent of microfinance outreach, compared with 98 percent in Nepal and 96 percent in India (Figure 16). The Pakistan Microfinance Network (PMN) estimates microfinance potential market at close to 27.5 million clients. However, the PMN data, as of December 2011, shows that not only total active borrowers (2.1 million) are less than this

[17] For example, lack of accounting, budgeting, and planning capacity, and good entrepreneurial skills.

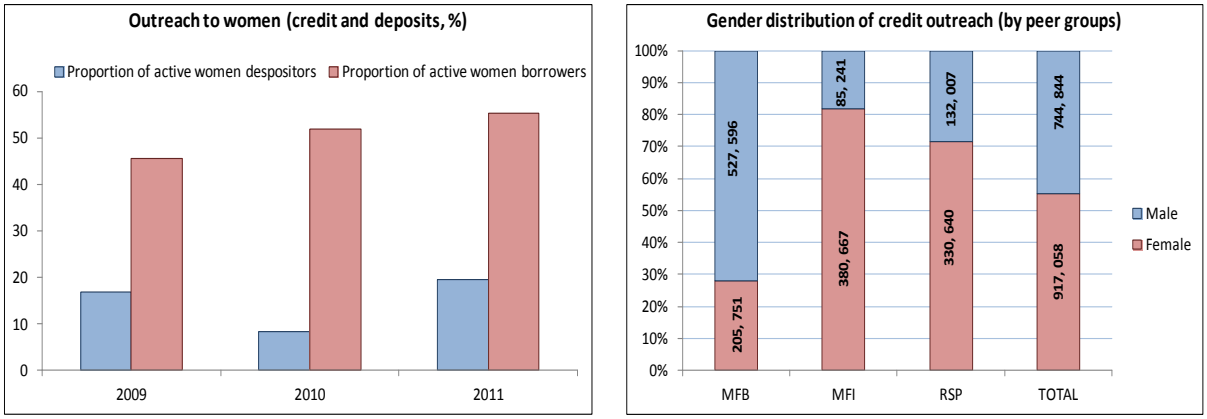
estimate, but women represent relatively very small number of 1.2 million active clients, which is lower than Pakistan's regional peers (PMN 2011). The main reasons for women entrepreneurs to lag behind in access to finance relate with collateral requirements, mobility issues and lengthy documentation. Thus, they prefer informal sources to finance their business needs, which tend to be expensive and small in quantity. This has had implications on the level of investment, which has reduced female entrepreneurship to abysmally low level (Figure 17, right panel).

Figure 16 Women Entrepreneurs & Microfinance Outreach (percent), 2011



Note: MFIs outreach data relates to countries with at least five MFIs reports.
Source: Microfinance Information Exchange, and Global Entrepreneurship Monitor Databases 2011.

Figure 17 Credit Outreach by Gender (percent)



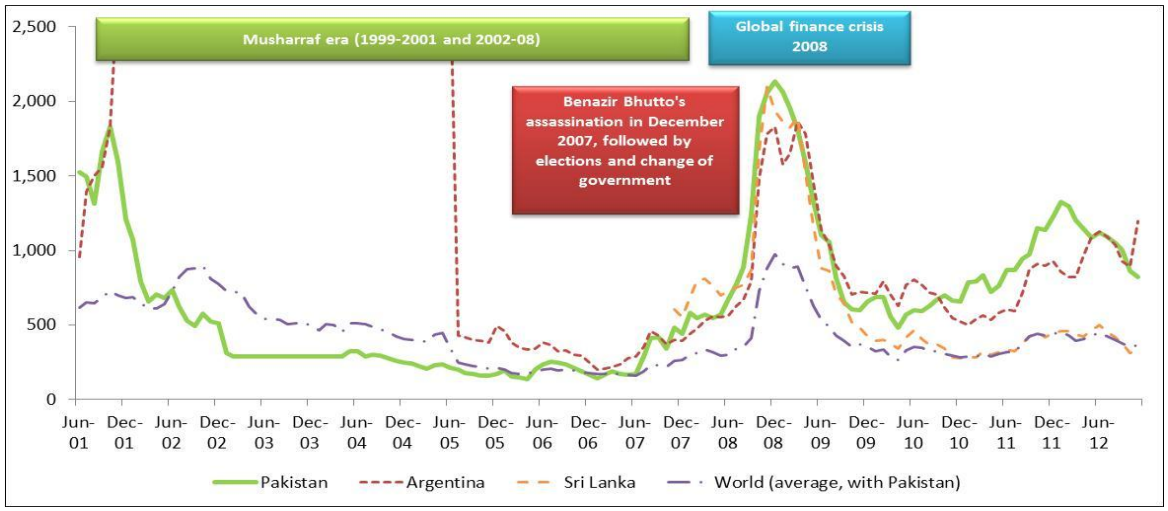
Source: Pakistan Microfinance Network 2011

Low and Declining Access to International Financing

30. At the same time, access to international finance appears as emerging constraint to investment in the country due to rising country risk. Following elections in 2002, the country managed to reduce its country risk by strengthening its democratic credentials and showing commitment for serious reforms. Owing to these reforms and political stability, domestic and foreign investment increased, social indicators improved with increase in income per capita, and the country emerged as one of the fastest growing economies in South Asia with average growth rate of more than 6 percent between 2004 and 2006. It was, then, reasonable to expect stronger future growth prospects. But these prospects became bleak

with increasing security, political instability, and global recession of 2008. The country risk (represented by spread on Emerging Markets Bond Index) moved from 400 basis points in January 2008 to a peak of 2,135 basis points in December 2008—highest during last decade. After the formation of new elected government, it took more than a year to normalize/reduce the risk. But since 2010, country risk has been rising again, reaching almost 1,500 basis points in December 2011, and then falling to about 900 by December 2012 (Figure 18). In addition to the reduced ratings of Pakistan's sovereign bond in 2012, international finance has become expensive for Pakistan.

Figure 18 **Pakistan's Country Risk (basis points), June 2001-November 2012**



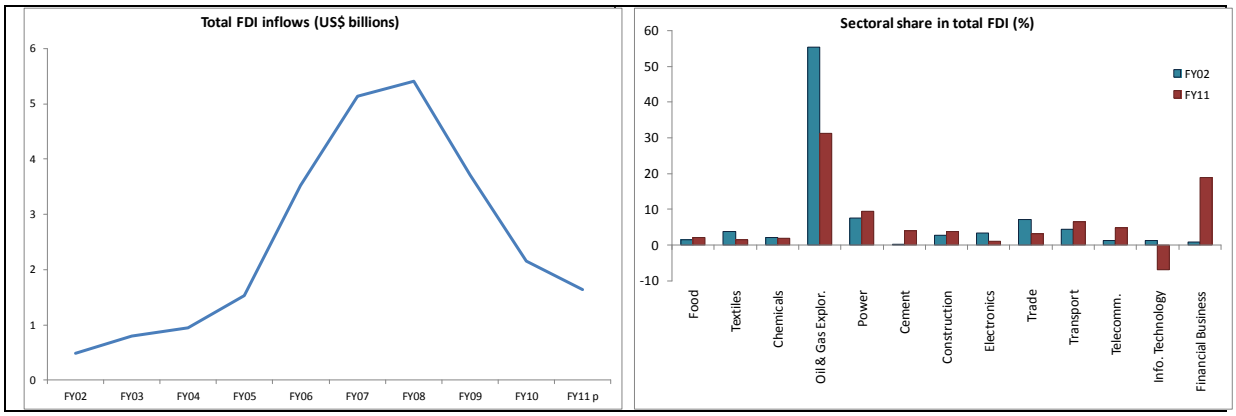
Source: Emerging Markets Bond Index database

31. In response to rising country risk, the inflows of foreign direct investment (FDI) fell more than half. FDI inflows fell from USD 5.4 billion in fiscal 2008 to less than USD 1.7 billion in fiscal 2011 (Figure 19) and USD 820 million in fiscal 2012[18]. With the exception of financial, power, transport, and construction sectors, most of the sectors have witnessed a drop in FDI. Major reductions have been observed in oil & gas exploration (reducing from 55 percent of total FDI in fiscal 2002 to 31 percent in fiscal 2011), information technology, trade, electronics, and textile sectors (Figure 19, right panel)[19]. The share of FDI in total foreign private investment[20] fell from 98 percent in fiscal 2003 to 82 percent in fiscal 2011[21].

32. The reduction in external inflows has aggravated internal and external financing issues. Pakistan has increasingly relied on monetary and central bank financing of the current account and fiscal deficits. The diversion of commercial bank financing to government bonds issued to finance the fiscal deficits (as mentioned above) has reduced credit for the private sector, which has particularly affected SMEs and women entrepreneurs. With increasing international reserve losses (from 3.9 months of imports in June 2011 to 2 months in December 2012), the central bank had to reluctantly intervene in the foreign exchange market. On the other hand, rupee has depreciated almost 10 percent, and pressure is mounting for further depreciation.

[18] Provisional data for fiscal 2012 from State Bank of Pakistan.
[19] One of the main reasons was reduced privatization receipts. In fiscal 2006, 44 percent of FDI inflows were privatization receipts. During fiscal 2009-11 no privatization took place.
[20] FDI plus portfolio investment.
[21] Based on data from State Bank of Pakistan (2012a).

Figure 19 **Foreign Direct Investment Inflows and Sectoral share, 2002-2011**



Note: The sector-wise FDI figures for fiscal 2002 are with privatization, and fiscal 2011 figures are without privatization; P is provisional.

Source: World Bank staff calculations based on State Bank of Pakistan (2012a)

33. However, financing may not be the only constraint, as there may be other factors of production that affect investment due to low private returns in Pakistan. This leads us to exploring other parts of the decision tree related with the position of 'private returns to investment'.

Private Return to Investment: Social Returns on Factors of Production

Infrastructure (Power) Gaps

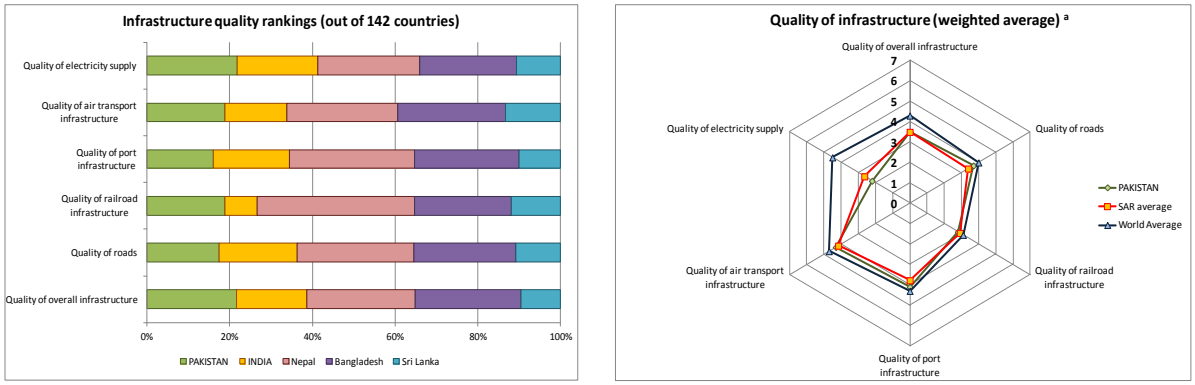
34. Social returns in Pakistan are low mainly due to infrastructural constraint (especially but not limited to energy gaps)—that pose a serious threat to the country's productivity and growth. Physical capital is important for productivity, and its low supply may constraint returns to investment and growth. Growth is not constrained by inadequate human capital, as low level of average schooling in Pakistan does not correspond with high returns to education. It is rather low demand for highly qualified workers and weak education system that affects human capital accumulation in the country. Growth is also not constrained by the geography. Growth and productivity is, however, constrained by large and growing energy deficit. The energy sector of the country is in poor condition due to unreliable mix of power sources, generation and distribution losses due to aging infrastructure, fiscal deficits, and governance issues. The resulting energy shortfall has rendered high losses to firms in general, and textile industry and small firms, in particular.

35. However, over last 50 years, there have been some improvements in Pakistan's public infrastructure, but infrastructural gaps are persistent. The overall quality of infrastructure in Pakistan ranks low at 109 out of 142, which places the country at a disadvantage to its competitors, including Malaysia, Sri Lanka, and Arab Republic of Egypt, and well below world average (Figure 20). The country's ranking has reduced from previous ranking of 100 in 2010-11 (World Economic Forum 2010, 2011). Pakistan has lowest quality of electricity supply, dismal quality railroads and to a lesser extent airport infrastructure, low density of paved roads and networks, and acceptable quality seaports[22] (Figure 20). Access to safe drinking water and improved sanitation is well below than in comparator countries. Pakistan performs well in irrigation infrastructure, and telecommunication[23] among its comparators (Techpolis 2012). Pakistan needs to increase its infrastructure investment, as improvement in infrastructure alone is estimated to bring about 3.7 percent increase in Pakistan's GDP per capita growth rate, i.e. with the respective contributions from electricity (1.9 percent), transportation (0.6 percent) and telecommunication (1.2 percent) sectors (Loayza and Wada 2012).

[22] According to ICA 2009, the transport sector was found to be one of top three problems for about 6 percent of the firms. Although, this shows less than significant effect of the sectors' deficiencies on large firms, however, the economic activities, especially of small and medium firms, do get affected with increased travel time and cost (World Bank 2009b).

[23] Internet penetration and mobile phone density grew substantially in the last decade, though there is low density of fixed telephone.

Figure 20 South Asia Region: Quality of infrastructure, 2011-12



Note: 1=extremely underdeveloped, 7=extensive and efficient by international standards.
Source: World Bank staff calculations based on World Economic Forum (2011).

Box 2 Overview of Transport Sector in Pakistan

Pakistan's transport sector is short on service delivery mainly due to governance issues, and lack of infrastructural investment on maintenance and reconstruction. A brief on the sector is as follows:

Road transport: It is the centre of all domestic transportation activities in Pakistan, accounting for about 91 percent of national passenger and 96 percent of freight traffic in the country. However, irrespective of its increased usage, the condition of roads and truck fleet as well as safety aspects has been overlooked. About 50 percent of the national highways are in poor condition, and truck fleet are obsolete and grossly overloaded. Moreover, truck operating speed on main corridor are only 40-50 kph for container traffic, which is half of the truck speed in Europe. This results in delayed (3 to 4 times longer than in Europe) delivery of heavy goods to destinations.

Pakistan Railway (PR): PR has broad gauge system, with network of main North-South corridor, connecting Karachi ports to the primary production and population centres in Pakistan. It mostly caters the passenger services despite its potential to serve the manufacturing sector. The freight services of Pakistan are ranked lower than China and India mainly due to non-competitive freight rates of PR over road transport, and cross-subsidizing of passenger services from freight services. As a result, PR has low and stagnant market share of both passenger and freight traffic.

Aviation sector: Despite having 36 operational airports in the country, only three airports (Karachi, Lahore and Islamabad) handle domestic and international cargo. The national carrier, Pakistan International Airline (PIA) rules over domestic and international air transport, carrying about 70 percent of domestic passengers and most of domestic freight traffic, resulting in low quality services at high costs. The restrictions on private sector entry into international and domestic air transport, and government's close involvement prevents commercialization of PIA and growth of air transportation.

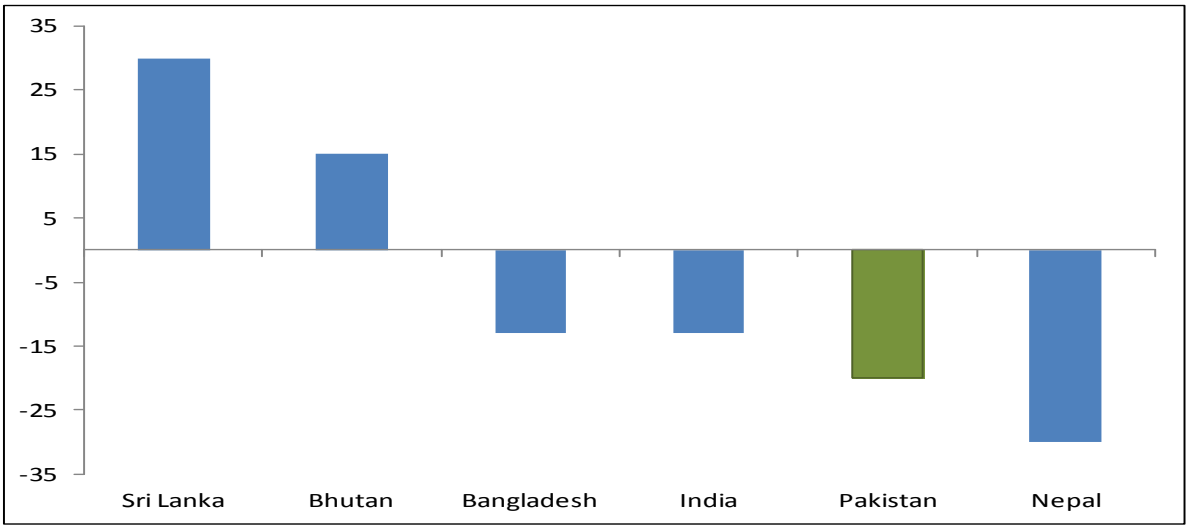
Seaport: Given the geographical location and improvement in infrastructure, port traffic has performed well over last few years. Pakistan has 14 dry ports for high value external trade, while two major ports of the country (Port Karachi and Port Qasim) handle about 95 percent of international trade. The inauguration of Port Gwadar in 2007 has increased Pakistan's capacity of handling international traded goods for the region. The automation of customs system has also helped reduce clearance time from 4-5 days to less than 24 hours, thereby, reducing the burden on free storage. Yet despite all the improvements, the overall inefficiency of the domestic transport system (containers handling, rail and road system etc) increases container dwelling time at the port (it is currently high at 5-6 days on average than international standards of 3-5 days), which adversely affects logistic performance and capacity of port terminals.

The government has taken few initiatives, which are expected to improve transport and trade facilitation bottlenecks in the country. However, for the continuum of the policy reforms, a long term strategy needs to be considered.

Source: World Bank 2012d.

36. In particular, rising electricity shortage as an emerging constraint poses a threat to the competitiveness of the country and its economic growth potential. At 20 percent, electricity deficit in Pakistan stands as second largest in South Asia region (Figure 21). By mid-2012, power outages in the country reached to an alarming average 8-10 hours a day, up from 3 in 2007[24]. The overall direct cost of power crisis to the economy has been estimated at PKR 380 billion per year—about 2 percent of GDP (Government of Pakistan 2012b). Majority of the firms have reported electricity shortage as a major obstacle to productivity and growth (World Bank 2009b, 2012e), while textile industries and small firms bear highest losses. The estimated business losses occurring due to energy crisis are reported at PKR 210 billion, 400,000 jobs and USD 1 billion worth of exports in 2008 (Institute of Public Policy 2009), which are expected to have increased overtime. These are direct costs and do not take into account indirect costs such as risk mitigation, lower investments, firm closures or moving to another country–all of which hurt long-term growth potential of the country.

Figure 21 **Estimated Electricity Surplus and Deficits in South Asia (percent)**



Source: World Bank 2012b

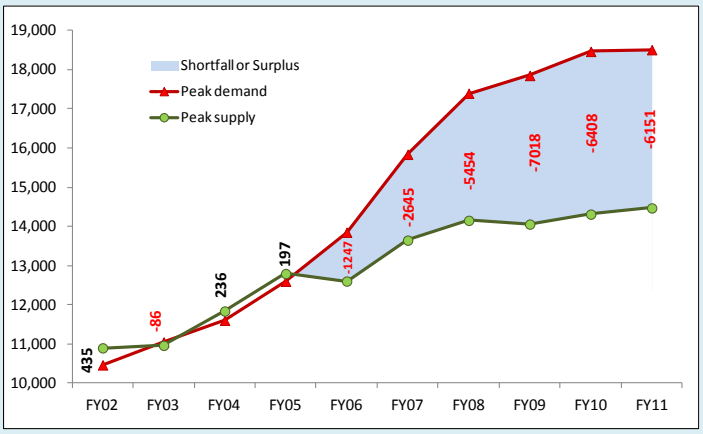
37. Power deficits are the outcome of a mix of governance and infrastructural issues. Pakistan has lowest electricity generating capacity and highest power losses of comparator countries. The power sector heavily relies on imported sources of input which have sporadic supply and price. This turns more expensive with losses occurring during the generation and distribution of electricity. The insufficient power infrastructure adds to the misery as existing plants bear more load than their capacity, thus aging fast and producing less than demand. Even worse, institutional shortcomings prevent electricity generation from reaching its capacity, resulting in electricity load-shedding. The power sector has not been able to adequately cover its costs due to theft and non-payments, which increases financial problems (circular debt) and reduces availability of funds for further investment (Box 3). In this situation, the cut on electricity consumption (load shedding) is unavoidable, but at the same time it affects productivity and raises cost of doing business. There is an urgent need for infrastructural investment to be able to meet rising future demand.

[24] World Bank estimates based on electricity shortfall data from the National Transmission and Despatch Company (NTDC).

Box 3 Main Reasons Behind Electricity Shortage in Pakistan

Power supply in Pakistan has not kept pace with rising demand over the last decade—a trend expected to continue over the next few years. Although electricity consumption is low by international standards, expanding the electricity network led to a 59 percent rise (from 48,585 GWh in fiscal 2001 to 77,099 GWh in fiscal 2011) in total consumption. Punjab has the biggest share (62 percent), followed by Sindh (20 percent), Khyber Pakhtunkhwa (12 percent), and Balochistan (6 percent). The consumption is highest among domestic/household, industrial and agricultural sectors. On the supply side, electricity generation rose only 39 percent over fiscal 2001–11. As a result, Pakistan's energy position deteriorated—from a surplus of 435 megawatts in fiscal 2002 to a deficit of 6,151 megawatts in fiscal 2011 (Box Figure 3.1).

Box Figure 3.1: Pakistan's Power Demand and Supply Position (megawatts), fiscal 2002-11



Source: *Government of Pakistan 2011b, and State Bank of Pakistan 2012b*

The four main reasons for power gap on supply side:

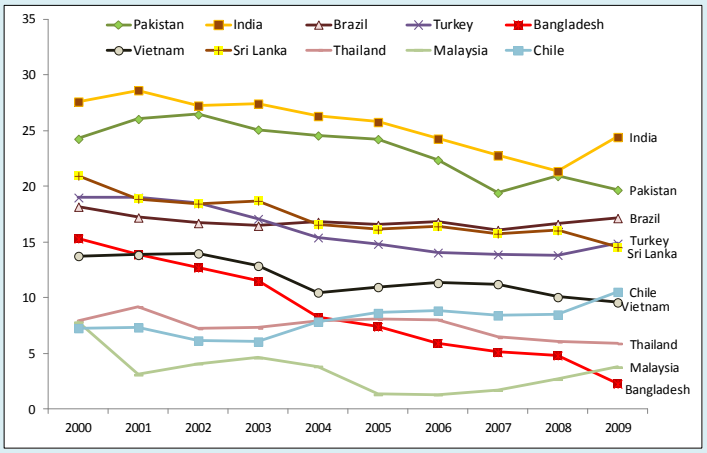
i. Bad mix of power sources: Pakistan gets its electricity from oil (35 percent), hydropower (34 percent), gas (27 percent), uranium (6 percent), and coal (0.1 percent).This kind of energy mix, while similar to those of low income countries, differs from other South Asian countries, which rely on coal and less on oil and gas. The mix poses several problems, including seasonal shortages of gas; irregular availability and fluctuating prices of imported oils; insufficient and aging hydropower infrastructure, with seasonal shortages of water supply.

ii. Technical losses: The transmission and distribution losses of the power sector lower installed generation capacity of 22 gigawatts to actual capacity of 18 gigawatts (in 2010), straining the sector's financial sustainability. The country's power system loses more power than its comparators—except India (Box Figure 3.2). In FY 2006, these losses were estimated at PKR 4.3 billion for every one percent lost. Technical problems include insufficient fuel and other inputs, overloading, aging and under-maintained infrastructure, and under-investment in transmission and distribution system. Distribution losses arise from theft, faulty metering, poor transmission technology, and low rates of bill collection.

iii. Fiscal deficits: The financial implications of energy system related inefficiencies have predominantly surfaced in the form of circular debt. The origins of circular debt relate with the misalignment of tariffs with the supply cost and the high transmission and distribution losses result in financial deficits. The accumulated arrears across the whole sector in fiscal 2011 added to PKR 285 billion. The deficits are met through subsidy payments by the government, short-term borrowing by companies, and the accumulation of receivables and payables on balance sheets (Box Figure 3.3). Federal subsidies for the power sector in fiscal 2012—more than PKR 500 billion (2.4% of GDP and 20% of total tax revenues)—overran the budget by PKR 353 billion. That included accumulated past registered arrears equivalent to 1.9 percent of GDP in fiscal 2012. The subsidies are fiscally unsustainable, highly regressive (not pro-poor), and favour the nonindustrial sector (tariffs are higher for industries than for consumers). But with phasing out of subsidies, electricity theft or non- collection of dues is likely to increase, leading to increase in circular debt. According to Institute of Public Policy (2010), energy shortages are estimated to have reduced growth by 2 percent approximately annually.

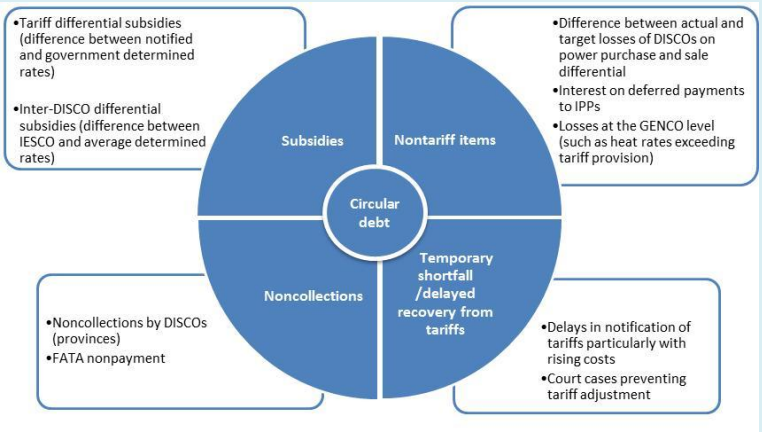
iv. Governance issues: According to ICA (2009), about 84 percent of firms in Pakistan applying for a new electricity connection had to make informal payments, which is highest amongst comparator countries including India, Bangladesh, Egypt, Vietnam, Sri Lanka, Turkey, and Brazil (World Bank 2009b). Corruption reflects weak governance at power generation and distribution companies. The government's interface in operational decision-making also inhibits commercial operations based on cost-effectiveness and maximizing profit. Improving services requires restructuring, hiring competent managers, separating power policies from management, applying the recommendations of technical and financial audits, and strengthening the regulatory body through a new legal framework.

Box Figure 3.2: Electricity Transmission and Distribution Losses (percent of output), 2009



Source: World Bank 2012a

Box Figure 3.3: Origins of Circular Debt



Source: Government of Pakistan 2012b, State Bank of Pakistan 2012b, IMF 2012b, Loayza and Wada 2012, and World Bank 2009b.

Geography

38. A well developed infrastructure and good location or geography, both contribute towards economic growth. Several studies have shown strong relationship between location, geographical features and growth (Radelet and Sachs 1998, Gallup and Sachs 1998). Economies with proximity to major markets not only reduce their transport cost but also benefit more from economic opportunities, than the landlocked countries. However, not all landlocked countries have had bad performance. Different countries in Europe, despite their landlocked situation, have performed better than the ones in Africa; their higher level of growth may be explained by increased investment in infrastructure besides other crucial elements of growth. Thus, if a country is bestowed with good geography, it should invest in

improving its infrastructure, as it not only helps with production efficiency by reducing costs, but also provides connectivity with local and international markets.

39. The geographical snapshot of Pakistan is of great advantage. With total area of 803,950 sq km, and coastline of 1050 km, it is ideally located with natural geographical connections with emerging economies, like China and India, and with the possibilities of opening different cost effective trade avenues between North-South and East-West, being located at the crossroads of South Asia, Central Asia, China and the Middle East. It is at the fulcrum of huge market with increasing population/workforce, diverse resources, and growing but untapped potential for trade. With its advantageous geography, Pakistan is destined to become a trade hub.

Human Capital

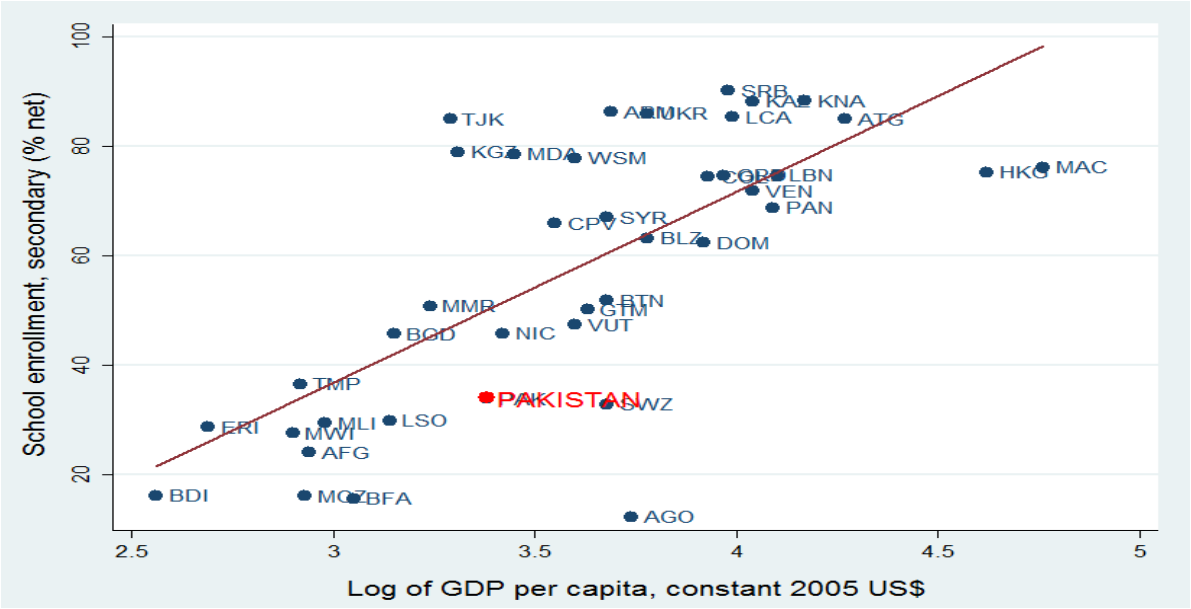
40. The average level of education and skills of the labor force in Pakistan is low. The average level of educational attainment that indicates level of supply of human capital appears low in Pakistan. With 58 percent of total literacy rate in fiscal 2011, the country ranks lower than its South Asian peers including India (74 percent in fiscal 2011), Nepal (60 percent in 2010), and Sri Lanka (91 percent in 2010). The secondary school enrollment rate is below average at 34 percent (Figure 22), and average years of total schooling remains lower than other regions, despite some improvement during last decade—from 3.3 in 2000 to 4.9 in 2010 (Figure 23, left panel). The country doesn't rank any better on its worker's skills: 77 (out of 98) with a score of 4.10 (World Bank 2009b). This may lead to hypothesize that low supply of human capital is a constraint to growth in Pakistan.

41. However, returns to education suggest that the problem may be of a low demand; hence human capital is not a binding constraint to growth. With low level of education, if the returns to education are high, it implies that economy is willing to pay more to the educated few; i.e. there is high demand for educated people. However, this is not the case in Pakistan. The returns to education[25] for both male and females have declined in Pakistan from 6.8 percent in 2006 to 6.4 percent of total population in 2008. These rates are lower than India (10.8 percent), Sri Lanka (8.9 percent), and Nepal (7.9 percent) (Figure 24, right panel). Interestingly, females in Pakistan have better returns for higher levels of education due to scarcity of educated females, while males have better returns at lower levels—incomplete primary and primary (World Bank 2012f). These results are consistent with high unemployment rates for females and higher educated (Figure 7). According to World Bank (2009b), low supply of better educated and highly skilled human capital in Pakistan is due to low demand, which explains the reason for low returns to education. Average education level of workers in manufacturing sector (and small industries) is reported to be low, about 93 percent with primary or less than primary education, and a little better in services sector. Firms do not consider inadequate human capital as an obstacle due to low-skills and low-technology intensive economic structure (World Bank 2009b). Another main reason for low human capital is low quality of education provided by the public schools, in particular (World Bank 2007a; UNESCO 2007; and Qayyum and others 2008). For the most part,

[25] Returns to education are calculated following Jacob Mincer's method, the Mincer regression model: *ln wage= f(age, age² and dummies for gender and completed primary, secondary and tertiary education*. The estimated coefficients represent the rates of return of investment on the corresponding level of education (opportunity cost). For details on estimates for South Asia and Transition Economies, see World Bank (2012f), and Yemtsov and others (2006).

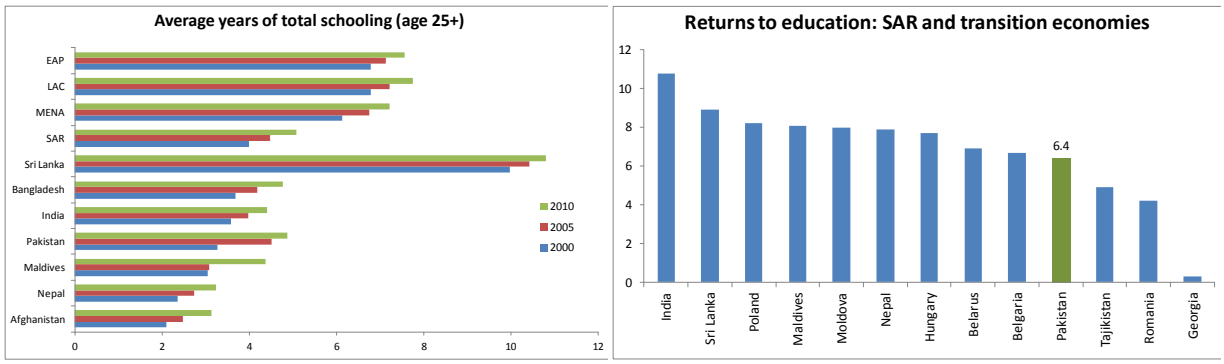
public expenditure on education has been very low and decreasing from an average of 2.1 percent of GDP during 2000s to a meager 1.8 percent of GDP in fiscal 2011–lowest in South Asia. The country has made some progress under recent education sector reforms program; however, much needs to be done for improvement.

Figure 22 Secondary School Enrolment and Per Capita Income (2010)



Note: Above data relates to latest available years; 2009 for Bangladesh, 2007 for Afghanistan, and 2010 for all other countries.
Source: World Bank 2012a

Figure 23 Average Level of Schooling and Returns to Education



Note: Return to education calculations are based on latest available data: Pakistan: 2008; Bangladesh: 2005; India, Sri Lanka & Nepal: 2008; Maldives: 2004; Belarus & Poland: 2000; Georgia, Hungary and Russia: 2002; Bulgaria, Moldova, Romania and Tajikistan: 2003.
Source: World Bank 2012a, 2012f; Yemtsov and others 2006.

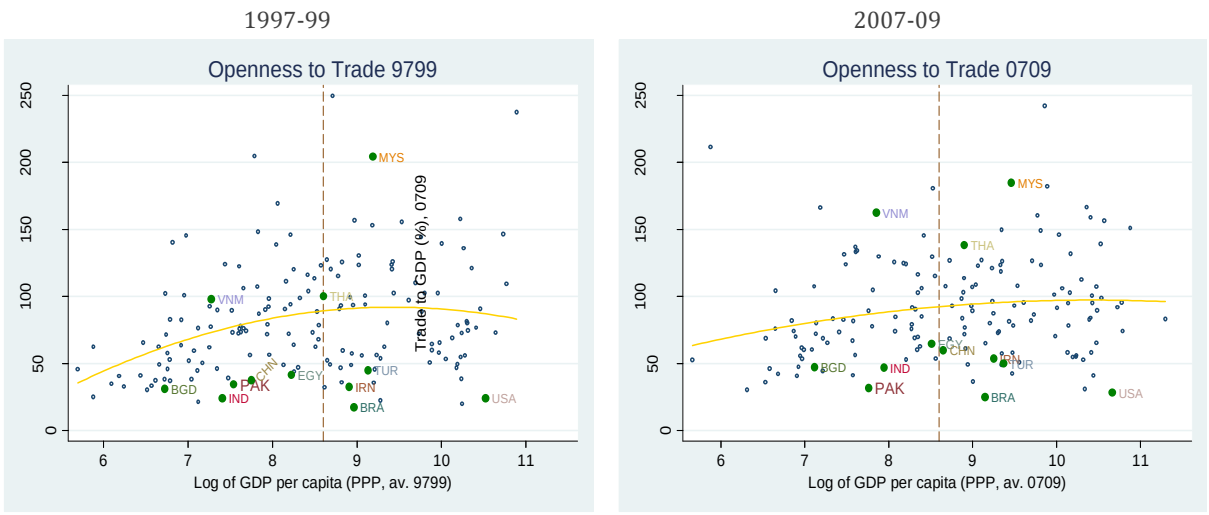
Private Returns to Investment: Appropriability constraints

Slow Product Diversification (Self-Discovery)

42. Another long-standing binding constraint to Pakistan's growth is a mix of government and market failures that leads to low level of product diversification[26] and competitiveness, especially in exports. Well protected property rights and a business-friendly environment help increase private returns to investment by minimizing the risk of expropriation (appropriability rights). Without them structural transformation does not happen, or it happens so slowly that growth is impeded.

43. A symptom of poor productive diversification in Pakistan's is its near-stagnant trade performance with low and falling trade-to-GDP ratio over last decade (Figure 24). The country has witnessed little change in its export and import (as percent of GDP) over the past three decades, and its exports growth has been lower than in the rest of South Asia and the emerging economies. As a result, Pakistan's export shares in the world market declined—while those of Thailand, Mexico, and Malaysia doubled and those of China tripled. Pakistan's exports structure is based on labor-intensive and light-manufacturing products (textile, footwear, leather etc) which accounted for 65 percent of total exports in fiscal 2009. And the country is under exporting to fast growing economies like China and India, with most exports going towards US and European markets, making Pakistan's exports more vulnerable to adverse shocks in those countries. With substantial churning of firms, there are some signs of export dynamism, but it seems to be losing steam with declining trends in firm entry and exit (Reis and Taglioni forthcoming). By diversifying its exports (in both product and market), Pakistan can reduce its vulnerability to external shocks (price and partner specific) and contribute to growth.

Figure 24 **Openness to Trade: International Comparison**

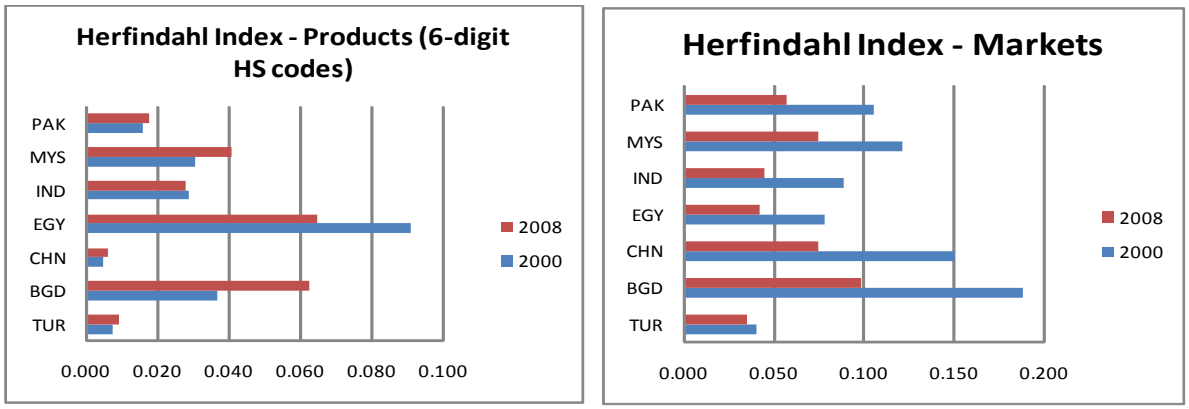


Source: Reis and Taglioni forthcoming.

[26] Product diversification is about shifting from producing primary, low-productivity and low-skilled goods to high-productivity, high-skilled goods by learning from fast-growing countries and identifying niche in certain products.

44. Different indicators point at slow diversification of Pakistan's exports. The Herfindhal Index[27] (HI) of exports concentration (by product or by market) reflects an inverted U-shaped relationship between growth and diversification, which means as countries develop, they diversify production until they reach relatively high GDP per capita, and then become more specialized. It indicates that diversification can be increased either by increasing new discovery or by producing more of the same goods. The analysis of six-digit Harmonized System level exports data suggests that Pakistan's exports are more diversified in products than by markets, and during the period 2000-08, product diversification remained largely unchanged, while concentration in some markets declined (Figure 25). In 2008, Pakistan's exports diversification by product (HI of less than 0.02) was better India, Egypt and Bangladesh, but worse than China and Turkey. By markets, Pakistan's exports diversification (HI around 0.05) was better in 2000, but still lagged all competitor countries except China and Bangladesh. Pakistan's exports have witnessed improvement in geographic diversification, as the shares of US and European markets in Pakistan's exports have reduced by about 9 percentage points between 2000 and 2009, with small rise in exports to Brazil, Russian Federation, India and China. Pakistan now trades more with Gulf Corporation Council countries due to trade complementarities and re-export base for its products. Normalizing its trade relations with India is expected to open up advantageous trade opportunities with India and other South Asian countries.

Figure 25 Herfindhal Index of Product & Market Differentiation, 2000 and 2008



Note: On the range of 0 and 1, HI close to 0 indicates perfectly diversified export portfolio, and higher HI values indicate less diversification.
Source: Reis and Taglioni forthcoming.

[27] Imbs and Wacziarg (2003) analyze the process of diversification, considering how it behaves across income levels. Based on following equation, they indicate that discovery is one of the two channels through which diversification can happen: new discoveries, or producing more evenly across a given set of goods, that increases as the countries develop and at one point become specialized.

$$H = \sum_{i=1}^{J} \left(\frac{x_i}{\sum_{i=1}^{J} x_i} \right)^2$$

where, i representing individual product and J as total number of products. Diversification can be increased either by adding another i, thereby increasing J (new discovery) or by equalizing the x's for a fixed J: producing more evenly across a given set of goods.

45. Second, exports diversification indicator, Intensive Margin (IM) and Extensive Margin (EM)[28] points to similar findings. Pakistan is broadly moving towards new products and markets, but slowly and from a low base (Figure 26). Pakistan's share of exports in products that the rest of the world also exports (IM) has slightly declined over the period 1998-2008, but the country appears to be moving towards globally strategic exports (EM). In the meantime, its competitors have significantly improved along both measures over the same period. Pakistan's exports share in its current markets (IM) has declined, but it has increased its reach to new markets (EM). Whereas, its competitors, except Indonesia, India and Vietnam, have increased their export share in their existing markets rather than adding new markets as their exports destinations (Figure 26).

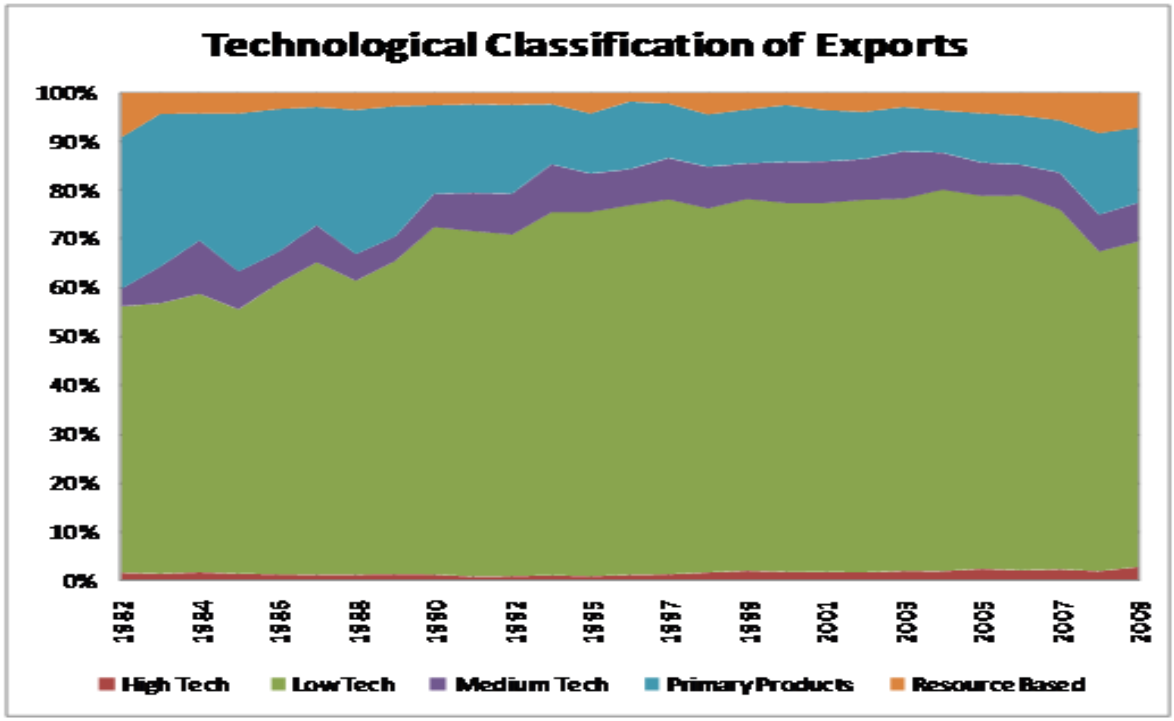
Figure 26 **Intensive and Extensive Margins in Products and Markets, 1998 and 2008**

Source: Reis and Taglioni forthcoming.

46. Third indicator of diversification is the share of high-tech (engineering and other high value added) contents in export products. The share of high-tech products in Pakistan's total exports was less than 2 percent in 2008, almost unchanged since 1980s, while the share of low–tech exports increased from 54 percent in 1982 to about 65 percent in 2008 (Figure 27). In the meantime, Pakistan's comparator countries, such as Vietnam and India have increased the share of high value-added products in their exports (Reis and Taglioni forthcoming).

[28] Following Hummels and Klenow (2005), IM measures *how big Pakistan is in what it exports*, while EM shows *how globally important is what it exports*, leading to establish differences between larger economies and smaller economies.

Figure 27 Share of Technological Contents in Pakistan's Exports (%), 1982-2008



Source: Reis and Taglioni forthcoming.

47. The fourth indicator is export sophistication (a proxy for productive diversification). Countries with higher level of export sophistication relative to their income level have higher probability of accelerated growth (Hausmann, Hwang and Rodrik 2006)[29]. The sophistication of a country's exports (EXPY)[30] is an aggregate index of the ratio of each export good belonging to the country's export basket with respect to its total exports, multiplied by the weighted average of the income per capita of countries that produce a similar good. A higher EXPY indicates higher sophistication. Pakistan's position in export sophistication is lagging, and overtime its relative position has deteriorated. Over past forty years, its comparators have improved on the sophistication of their export basket, whereas Pakistan's improved only between 1982 and mid-1990s, followed by stagnation (Figure 28). India, with a comparable level of GDP per capita, has much better sophisticated export package, and China, the Philippines, and Thailand have substantially improved their export sophistication. The development of new products is more important for below average countries, like Pakistan, as the countries above the 'line' have higher probability of accelerated growth (Figure 28, right panel).

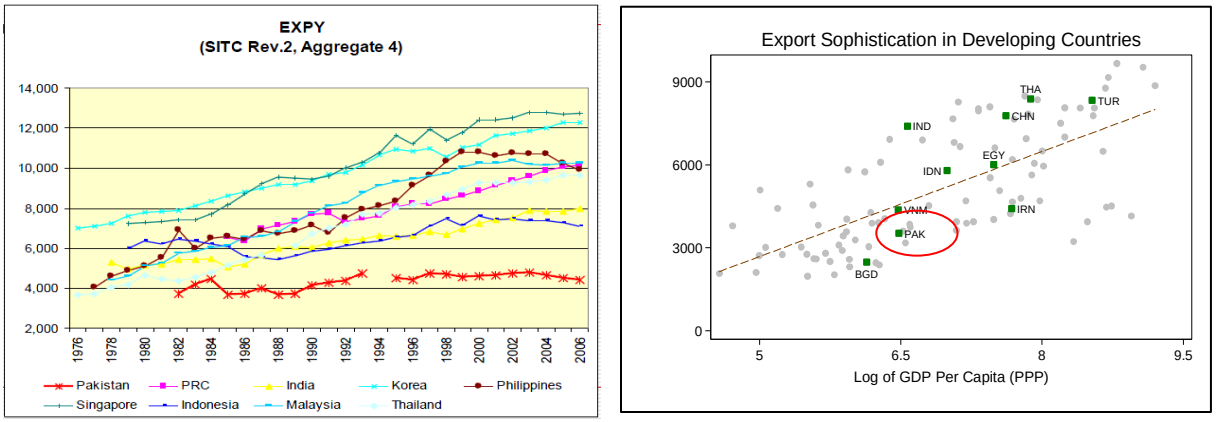
[29] Hausmann and Klinger (2008) have shown that current export sophistication is a good predictor of economic growth in the future. Felipe (2010) estimates that a 10 percent increase in EXPY at the beginning of period raises growth by about half a percentage point on average.

[30] As in the following equation, the level of export sophistication (*EXPY)* is measured in relationship to the income of countries that produce similar products, weighted by the share of those exports in the national total.

$$EXPY_{c,t} = \sum_{i} \left(\frac{xval_{c,i,t}}{X_{c,t}} \right) PRODY_{i,t}$$

Where, $EXPY_{c,t}$ is the sophistication of aggregate export basket of a country c at time t. $xval_{i,c,t}$ represents export of good i. X_c is the total exports by country c, and $PRODY_{i,t}$ is product-wise sophistication of a country's exports, where sophistication is inferred from the type of countries (as represented by the GDP per capita). *PRODY* is found by calculating the weighted average of the income per capita of the exporters of that product, with the weights consisting of the revealed comparative advantage of each country that exports that good.

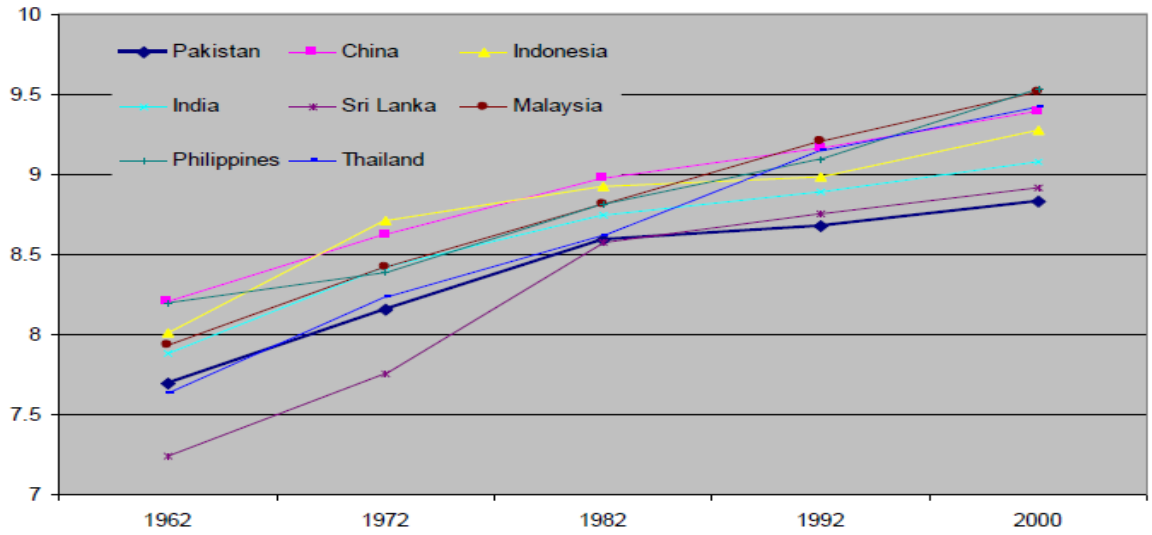
Figure 28 **Exports Sophistication of Pakistan and Selected Countries**



Note: In right panel, countries higher on y-axis, at given level on x-axis, grow faster.
Sources: Hausmann 2011; Reis and Taglioni fothcoming.

48. A final measure of productive diversification is export connectedness (open forest). The measure identifies if a country is located in a dense product space (called as 'high open forest', signified by high value), which offers new and valuable opportunities for structural transformation, or in a thin and unconnected product space, which indicates lack of opportunities and difficulties in transforming into new products. This measure is highly significant in determining the future growth of the country. The analysis indicates that over the past forty years, Pakistan has hardly moved to denser and more connected product space, lagging on its open forest transformation into high-value products as compared to other countries (Figure 29)[31]. The country specializes in low-wage goods that require low-skills and have few alternative uses. In other words, its activities are mostly peripheral, with which it is more difficult for the country to move into high-value activities that require completely different capabilities. Pakistan's three competitor countries—Indonesia, Thailand, and the Philippines—started off with less connected product space but gradually made it to better export connectedness.

Figure 29 **Pakistan's Position in Open Forest (in logs), 1962-2000**



Sources: Hausmann 2011

[31] See Annexure 4 for a visual analysis of Pakistan's location in open forest.

49. All five indicators provide quite convincing evidence that low productive diversification and competitiveness is the root cause of Pakistan's growth underperformance. As structural transformation is the result of changing comparative advantage, which arises from changing relative factor intensities (factor accumulation), the main challenge facing Pakistan is the development of new products with higher technological contents. The next step is to identify what factors are preventing productive diversification. Both market and government failures have a role.

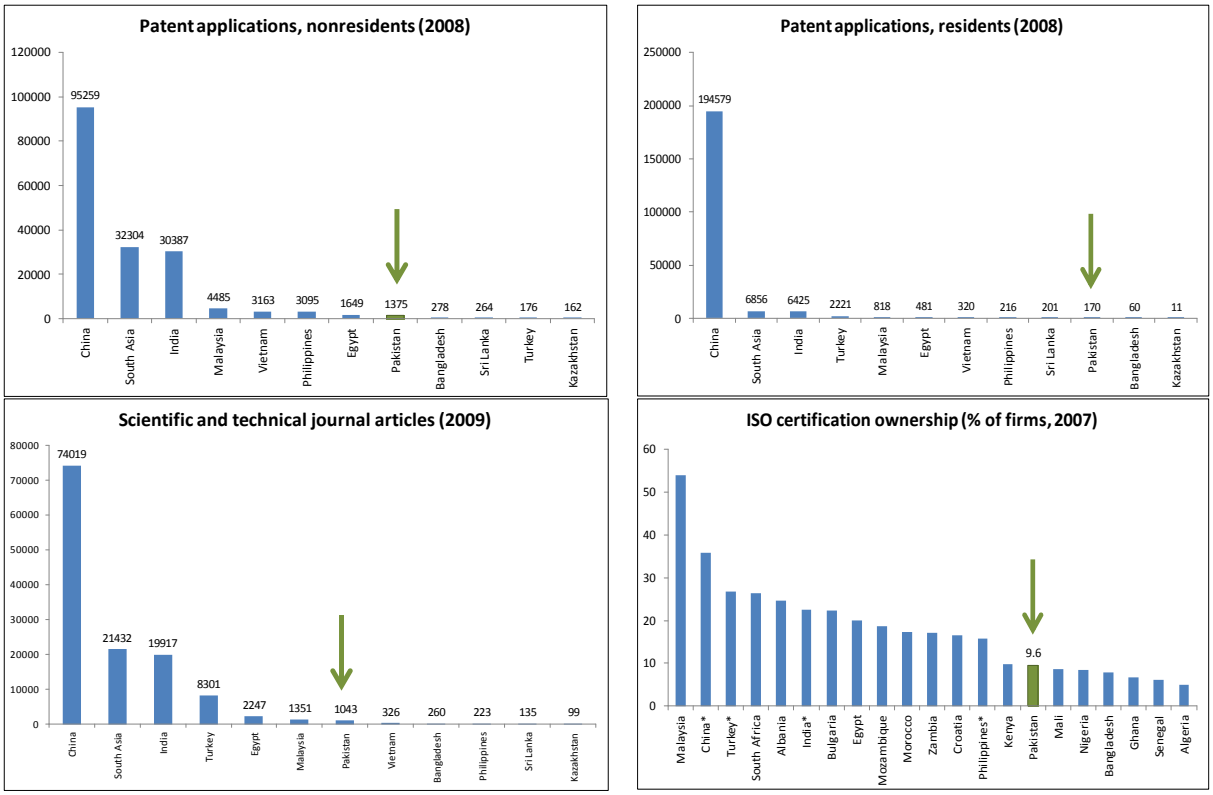
Market failures

50. Market failures partly explain Pakistan's slow productive diversification. Innovation (process of creative destruction) is a critical link between entrepreneurship and growth (Schumpeter 1934). Some externalities in exchange and accumulation of knowledge may not be helpful for innovation, which in turn affects total factor productivity and growth (Romer 1986, 1990). These externalities represent market failures in the form of innovation, learning and coordination externalities.

Little Innovation

51. Low level of innovation exchange in Pakistan is long-standing structural constraint to its growth. Innovation promotes productivity, jobs creations and knowledge sharing. Innovation exchange is directly related with Pakistan's poor performance in export sophistication and productive diversification (Hausmann 2011). Pakistan is ranked lowest on three global innovation indexes—global innovation, global competitiveness, and innovation capacity (Speakman and others 2012)—as reflected in key international benchmarks with low research, number of patent applications, and International Organization for Standardization certifications. In comparison, China and India are ranked higher on all three indicators (Figure 30). There is lack of incentives for Pakistani entrepreneurs to invest in new activities (Government of Pakistan 2011a). The World Bank's Enterprise Survey (2010) finds that only 6 percent of surveyed Pakistani firms had introduced a new product in the last three years; 70 percent of firms in Chile did so. The World Economic Forum (2011) also ranks Pakistan at 118 of 142 world economies in competitiveness.

Figure 30 Pakistan's Performance in Innovation



Note: ISO certification ownership figures are the latest available: 2007 for all countries, India: 2006, Turkey: 2005, China: 2003, and Philippines: 2003.
Source: World Bank 2012a.

Low Learning

52. The learning gap is a second negative externality that constrains private investment in new activities. It is difficult for new investors to hire people with proper mix of skills and experience for implementing and operating new technology, so the entrepreneurs are often required to provide basic training. However, less than 5 percent of manufacturing firms in Pakistan provide training to their employees. This is significantly lower than the competitor countries, including India, Philippines, Bangladesh, Turkey, Sri Lanka and Egypt (World Bank 2009b).

Poor Coordination

53. Third, negative externality is poor coordination that is emerging as constraint to Pakistan's productivity and growth. Generally, coordination failures arise when new industries exhibit economies of scale and the inputs are missing (Rodrik 1996). These externalities show lack of critical inputs or inefficient mix of inputs in the development of new projects, which affects profitability of investing firm. For example, as a complementary action for large scale private investment, public investment is required in certain sector as transport networks, logistics, electricity, and irrigation. But excess red tape in developing public projects leads to a lack of these inputs, inefficient mix of inputs, or slow implementation of projects, which reduces investment profitability. Private sector investment in developing countries, like Pakistan, depends on complimentary public investment as the private sector is not organized to undertake such investments in a

coordinated manner. Infrastructure facilities need to be better organized to maximize returns. The weaknesses in Pakistan's public investment, as acknowledged by the Government of Pakistan, include investment priorities other than economic efficiency, less attention to maintenance, inadequate attention to completion and efficient use of infrastructure, and excessive emphasis on brick and mortar projects (Government of Pakistan 2011a).

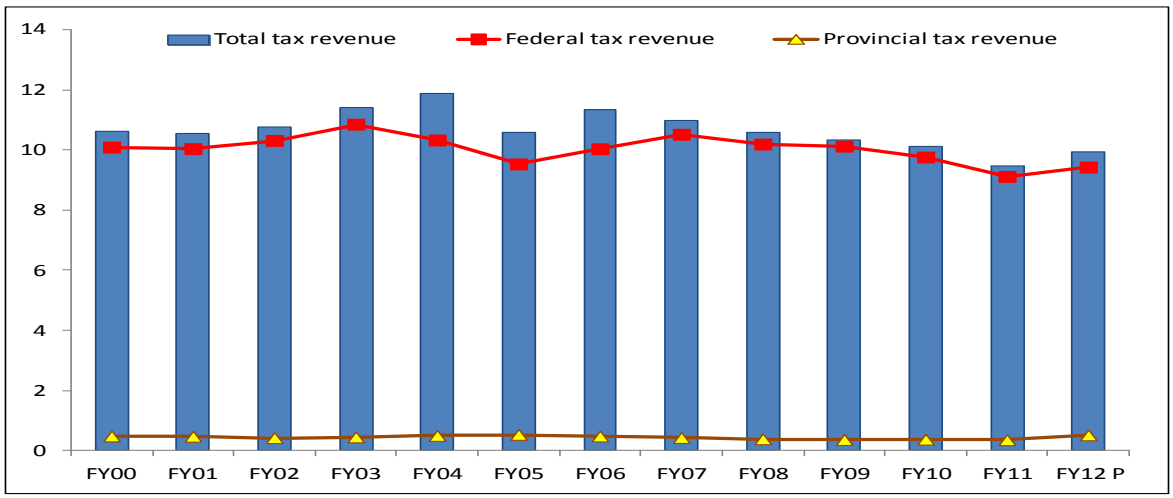
Government Failures

54. Low level of productive diversification is partly the result of government failures–at both micro and macro levels. Four of these failures are the structural binding constraints to growth: bad taxation resulting in low tax revenue, a strong anti-export bias in the trade regime, weak business regulations and poor civil service as part of micro-risks. Another micro-risk in the form of bad governance and a macro-risk of currency and fiscal crisis are emerging constraints, whereas low growth in Pakistan is not constrained by labor rigidities and exchange rate regime.

Ineffective, Expensive and Cumbersome Taxation

55. Pakistan's tax system underperforms due to issues with its efficiency and effectiveness. An efficient tax system not only supports government revenues to ensure continuity of public investment and services, but also reduces the tax burden on important business activities. Pakistan has a narrow tax base with multiple exemptions and high corporate income tax. This inefficient system leads to massive tax evasion—in 2007, only 3 percent of registered taxpayers paid about 90 percent of the value-added tax (Ahmad 2010)—and very low tax revenues. Pakistan's tax-to-GDP ratio declined from 11.9 percent in fiscal 2004 to 9.9 percent in fiscal 2012 (Figure 31), among the lowest in the world. The tax system's narrow coverage and administrative shortcomings have led to vast tax evasion (Lopez-Calix and Touqeer 2013). In 2010, Pakistan had the lowest value-added tax gross compliance ratio (28 percent), as well as lowest productivity rates for the value-added tax (0.23 percent) and corporate income tax (0.08 percent) (Table 3).

Figure 31 Pakistan's Tax Revenue Trend (% of GDP), 2000-12



Source: World Bank staff calculations based on Government of Pakistan (2012a, 2012c), Federal Board of Revenue (2012).
Note: Nominal GDP at market price used as denominator. P is Provisional

Table 3 VAT and CIT productivity rates (percent), 2009-10

	VAT			CIT	
	Rate	Gross compliance ratio	Productivity	Rate	Productivity
Pakistan	15.00	28.25	0.23	35.00	0.08
Sri Lanka	15.0	44.0	0.31	35.0	0.03
India	12.5	N/A	N/A	35.0	0.14
Bhutan	NA	NA	NA	30.0	0.17
Thailand	7.0	97.2	0.52	30.0	0.19
Philippines	12.0	47.3	0.33	32.0	0.12
Turkey	18.0	39.4	0.27	20.0	0.09
Korea	10.0	78.6	0.43	20.0	0.15
Singapore	7.0	89.7	0.37	18.0	0.21
China	17.0	73.3	0.27	25.0	0.09
Malaysia	10.0	N/A	N/A	25.0	0.20
Egypt	10.0	77.0	0.60	20.0	0.32
Nepal	13.0	31.2	0.28	20.0	0.08
New Zealand	13.0	54.6	0.45	33.0	0.41

Source: USAID 2011

56. Expensive taxation affects competitiveness and profitability of Pakistani firms. High corporate taxes lead to extensive informality and tax evasion and discourage enterprises (that pay taxes) from hiring skilled labor and becoming more productive. The government has gradually reduced corporate income tax from 66 percent for banking, 55 percent for private companies, and 44 percent for public companies during 1990s to a uniform rate of 35 percent on taxable profits in 2005 (World Bank 2009c). However, the rate is still high by international standards. Moreover, due to poor compliance, system of exemptions and loopholes, the effective tax rates are higher than nominal rates for most manufacturing firms (Table 4)[32].

Table 4 Nominal and Effective Tax Rates, by sectors

	Bidis	Cotton ginning	Carpets and rugs	Pharmaceuticals	Footwear	Sports goods	Surgical instruments	Printing and publishing	Glass	Cement
Nominal	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	20.1	12.1
Effective	6.5	2.5	9.1	16.8	7.3	6.7	5.5	8.0	40.0	27.1

Source: Ahmad 2010

57. Pakistani firms also report cumbersome tax payment procedures to be another binding constraint. Doing Business 2012 reports paying taxes as the second biggest obstacle for firms, ranking Pakistan 158 out of 183 countries on ease of paying taxes, down from 116 in 2011. Despite recent introduction of e-filing, the process of tax payment (preparing, filing, and paying taxes) in Pakistan takes three times longer than in Organization for Economic Co-operation and Development (OECD) average (World Bank 2012e). World Bank Enterprise Surveys report that weaknesses in tax administration severely constrain large and medium firms (World Bank 2007b, 2010b). PwC UK and World Bank Group (2012) also point at cumbersome process of paying taxes in Pakistan, noting that Pakistan recently raised the profit tax for small firms (Figure 32).

[32] In contrast, Pakistan's top marginal personal income tax rate of 20 percent, which affects skilled professionals, is among the world's lowest. In theory, this should make hiring professionals or permanent staff less expensive for firms.

Figure 32 Paying Tax is Getting Difficult in Pakistan

Pakistan
Pakistan increased the profit tax rate for small firms.

India
India eased the administrative burden of paying taxes for firms by introducing mandatory electronic filing and payment for value added tax.

Sri Lanka
Sri Lanka made paying taxes less costly for businesses by abolishing the turnover tax and social security contribution and by reducing corporate income tax, value added tax and national building tax rates.

Source: PWC UK and World Bank Group 2012

Anti-export bias in the trade regime

58. Pakistan's trade regime continues to show high anti-export bias, creating barriers to export competitiveness and diversification (Box 4). Tariffs and other protectionist instruments act as taxes on existing and potential export activities by shifting price incentives in favor of import-substituting production and by raising costs of imported inputs. This raises the profitability of production for domestic rather than international markets, reducing incentives for diversification. Pakistan launched a comprehensive and politically challenging trade liberalization program during late 1990s and early 2000s, reducing maximum customs duty (tariff) to 25 percent (still high), which encouraged illegal imports from Afghanistan and India (World Bank 2004). With the ballooning of current account deficit during the 2008 global financial crisis, Pakistan's trade regime was deliberately made more complex. This created high anti-export bias, encouraging the production of low value-added products, inhibiting competitiveness and productive diversification.

Box 4 How High Tariffs Lead to Anti-export Biasness in the Trade Regime

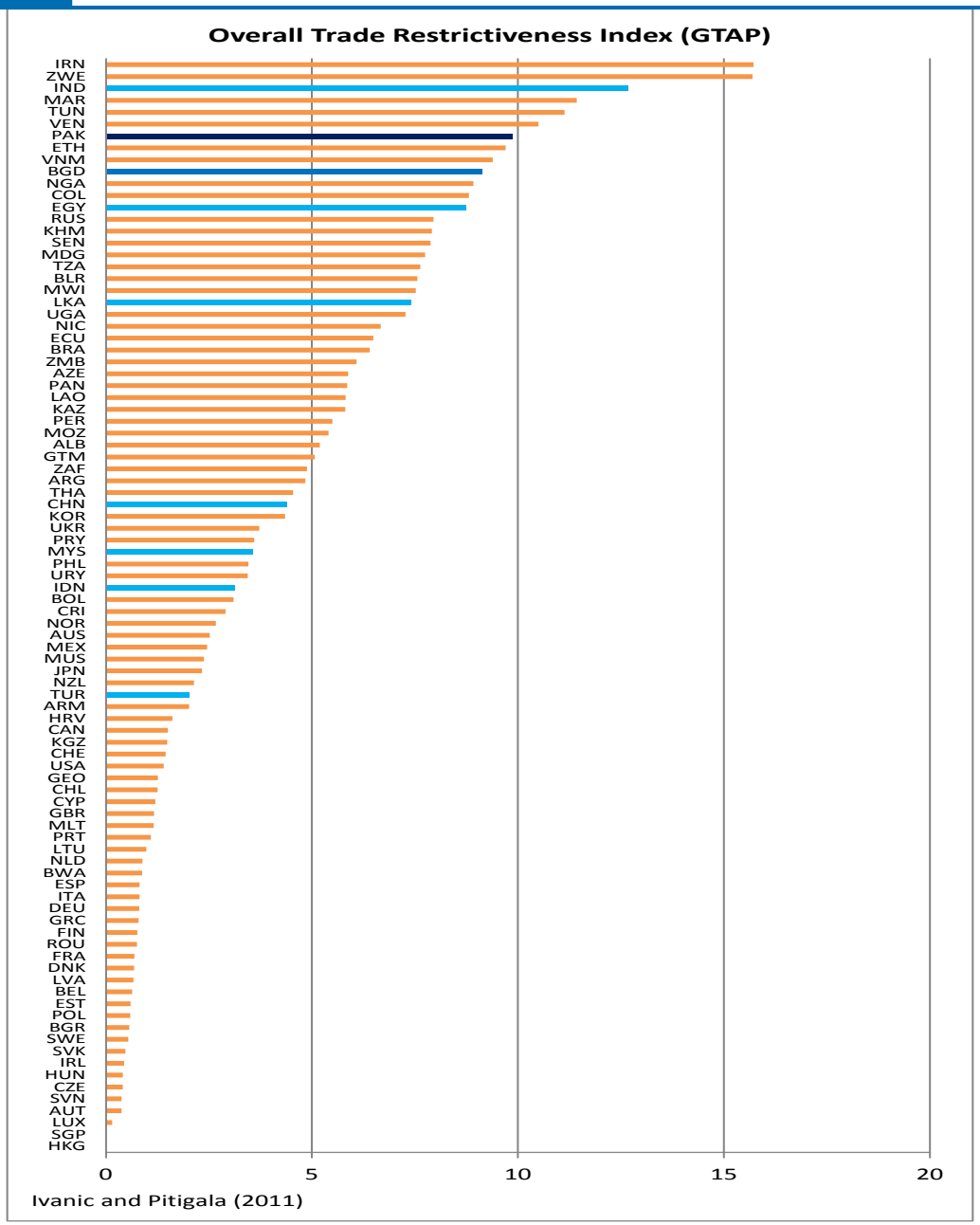
High and escalating tariffs and other instruments that provide substantial protection to domestic industries create strong disincentives to exports and export activities through several channels:

- Duties on imports of final goods raise their domestic relative prices, thereby increasing the profitability of the production of import substitutes relative to exports, which are sold at world prices. This diverts resources from exports to inefficient production for the domestic market.
- With import demand curtailed by high protection, import-related (ex-ante) demand for foreign exchange is also curtailed, allowing the country to maintain a lower exchange rate (a lower domestic currency price for foreign currency) than otherwise. Export proceeds, expressed in domestic currency, would thus be lower than without protection.
- Escalating tariffs—lower tariffs on imports of raw materials and intermediates and higher tariffs on more processed products—raise the effective protection rate for import substitutes above the nominal protection rate.
- Exporters, who sell in competitive world markets, cannot pass on to buyers the higher production costs resulting from import duties and other protective measures.
    - Duty and tax rebate systems, as in Pakistan, are generally not efficient enough to reimburse exporters quickly.
    - Enclave arrangements, such as bonded-warehouses and export processing zones, provide speedy duty-free access to imported inputs, but they serve only limited activities and cannot substitute for broader and deeper trade liberalization.

Source: World Bank 2006a

59. Pakistan is one of the most protected economies of the world. Most industries remain heavily protected and plagued by inefficiencies. This is evident by Pakistan's high and rising trade restrictiveness index[33] (Figure 33), placing the country in the 88th percentile group of economies with more restrictive trade policies. The index ranges from a value of 0 (no restrictiveness) for Singapore and Hong Kong to 16 in Iran and 9.9 in Pakistan in 2010, up from 9.0 in 2004.

Figure 33 Pakistan ranks high on overall trade restrictiveness index

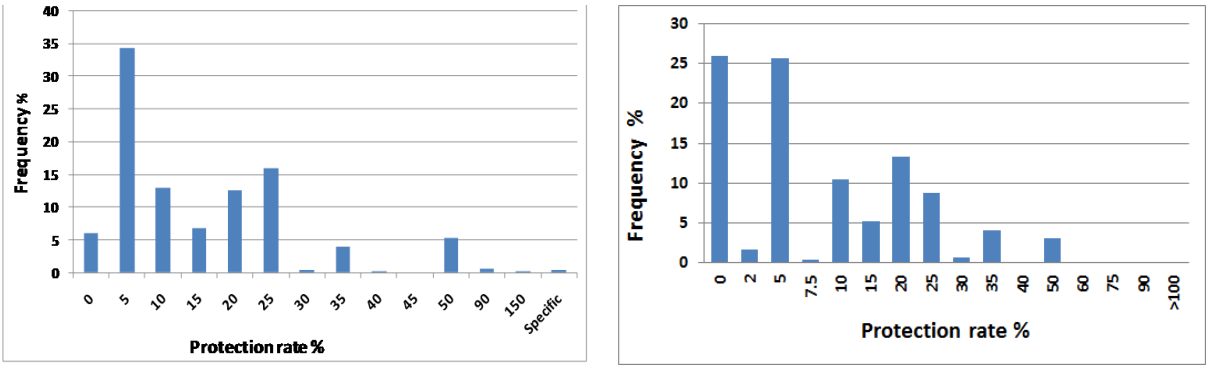


Source: Reis and Taglioni forthcoming.

[33] The overall trade restrictiveness index, as a measure of anti-export bias of trade regime, quantifies uniform tariff that, if imposed on home imports instead of the existing, heterogeneous structure of protection, would leave aggregate imports at their current level. It is a rigorous way to calculate and compare weighted average tariffs of countries, with weights reflecting the importance of each good in total imports and the responsiveness of the import of each good with respect to the relative tariff. For details on its theoretical foundations see Anderson and Neary (1994, 1996, 2003), and Reis and Taglioni (2013).

60. Pakistan's tariff structure is complex, based on nontransparent system, with substantial deviation between official and applied tariffs and significant tariff dispersion. On most favored nation statutory terms, there are currently 17 ad valorem tariffs, ranging from 0 to 150 percent, with most product line items (about 40 percent) at or below 5 percent (Figure 34). Transportation and certain agricultural products attract the highest tariffs. But the effective tariffs represent more than half either in 5 percent tariff slab or less, with further slabs appearing at the upper end of the scale, creating higher dispersion. In addition, about 2 percent of tariff lines are 'nuisance taxes' (taxes below 0 and 2 percent), which have marginal revenue, high administrative cost, and are prone to corruption. These complex tariffs affect imports significantly. Complexity ads to the anti-export bias: a 1 percent rise in 'tariff complexity' leads to a 13.2 percent decline in exports growth (Reis and Taglioni forthcoming). The high effective rates of protection on low value-added (manufactured) activities also raise incentives to produce low value-added goods and reduce incentives for new high value-added exports.

Figure 34 Distribution of MFN statutory and effective tariff rates, by frequency, 2009-10



Note: Effective tariff rates including regulatory duties
Source: Reis and Taglioni forthcoming; Pursell and others 2011

Exchange Rate Regime

61. Pakistan's fixed-peg exchange rate regime does not appear to be a binding constraint to its export competitiveness and growth. Competitiveness and growth in exports also depends on the exchange rate regime which avoids both systematic currency misalignment and excessive volatility, helping prevent external imbalances[34]. Pakistan's exchange rate has been relatively stable, despite significant variations in current account balance. In long run, it tracks the equilibrium exchange rate[35] fairly well without any major misalignment. Comparing with an estimate of its medium-term equilibrium value, Pakistan's real effective exchange rate (REER) appears broadly in line with the fundamentals. The country's REER is

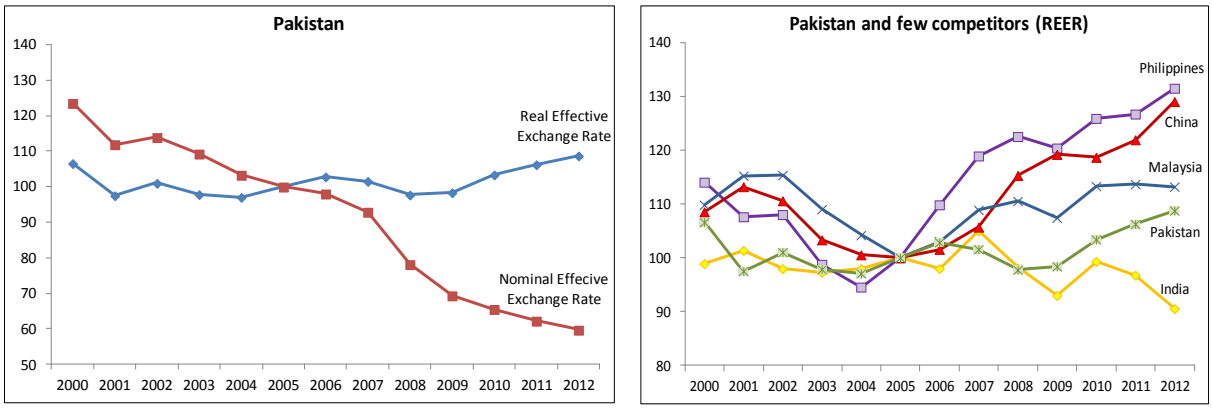
[34] The international competitiveness of the products of a country is affected by domestic prices or changes in international prices. As a measure of this competitiveness, real exchange rate (RER) is used, which also represents the index of competitiveness of the currency of a country. There exists an inverse relationship between this index and competitiveness. The domestic prices affect the competitiveness of the country by two ways: (a) changes in domestic price affect production cost; (b) changes in cost of production raise domestic price level. The increasing domestic prices eat into country's export earnings. To neutralize the inflation effect on RER, countries also devalue nominal exchange rate. And if the country is importing heavily (including imported input products), all this deteriorates the external account and reserves position.

[35] The equilibrium value of the REER is based on a panel regression of the REER on a set of fundamentals, including terms of trade; relative productivity; relative government consumption; net foreign assets; aid inflows; and remittances flows.

also in line with the fundamentals on the measure of external sustainability[36] (IMF 2012b, Waheed 2009).

62. However, recent appreciation of exchange rate may affect country's competitiveness. Excessive exchange rate appreciation before the economy is ready for transition towards higher productivity industry is not considered as a good strategy. Despite double-digit inflation (until fiscal 2012), Pakistan did not let its currency appreciate significantly in real terms. But strong remittance inflows could be exerting pressure to appreciate the rupee in recent years (Figure 35), which implies further shift in country's competitiveness. Especially, this has implications for entrepreneurs interested in exporting to Dollar zone.

Figure 35 Nominal & Real Effective Exchange Rates of Pakistan & a few competitors (2005=100), 2000-2012



Note: An increase implies appreciation. Price or index of costs has been used as deflator
Source: Global Economic Monitor database.

Rigid labor market

63. Pakistan is governed by rigid regulations with high compliance cost that restricts market flexibility. Efficient and effective labor market regulations are useful economic and social institutions, which help reduce poverty and increase economic growth by creating better jobs. With their direct impact on market flexibility and compliance cost at firm level, these regulations affect investment incentives for innovation and skills development (World Bank 2007a, 2012f). The labor regulations in Pakistan are antiquated, complex and costly, which restrict market flexibility for firms to hire labor at lower cost. There are work restrictions of seven months for temporary workers which prohibit them from permanent tasks. The minimum wage is fixed relatively higher than its South Asian peers (Table 5). The firing rules (for employees with one, five and ten years of employment) are expensive for firms at 27.2 weeks of wages, as compared to India, Malaysia, Brazil, South Africa and Vietnam (Figure 36). And non-wage benefits are also costly for firms, which provide little value to workers with low coverage (World Bank 2007a). As a result, firms use temporary employment in quest for financial efficiency and flexibility[37], and jobs are created in low productivity sector activities, which provide less income and negligible protection to workers against economic shocks (Robalino and Cho forthcoming).

[36] Assuming a negative net international investment position of approximately 30 percent of GDP, Pakistan's current account 'norm; would be roughly 3¼ percent of GDP, indicating that the REER is broadly in line with fundamentals (IMF 2012b).
[37] Temporary workers are about one-third of surveyed businesses in Pakistan (World Bank 2009b).

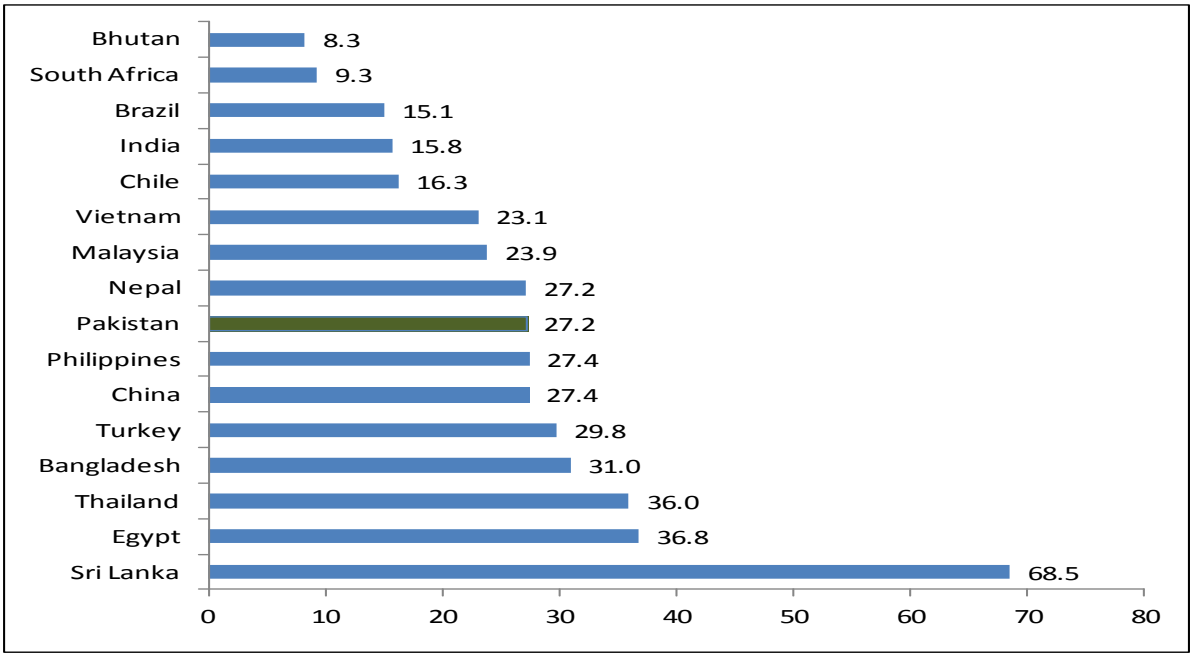
64. However, Pakistan's competitiveness does not appear as constrained by rigid labor market regulations as they hardly get implemented. Due to dysfunctional enforcement institutions, firms manage to avoid implementation of regulations. Generally, firms do so by making 'settlements' with government officials. Thus, the impact of complex regulations remains minimal on firms, and they do not consider labor regulations as a major constraint (World Bank 2009b).

Table 5 Selected Hiring Rules

Country	Are fixed-term contracts prohibited for permanent tasks?	What is the maximum cumulative duration of a fixed-term employment relationship (in years), including all renewals?	Ratio of min to average wage
Pakistan	Yes	0.75	0.28
India	No	No limit	0.17
Sri Lanka	No	No limit	0.13
Bangladesh	Yes	No limit	0.28
China	No	No limit	0.37
Brazil	Yes	2.0	0.26
Philippines	Yes	No limit	0.66
South Africa	Yes	No limit	0.69
Vietnam	No	6.0	0.37
Egypt	No	No limit	0.10
Chile	No	2.0	0.00
Turkey	Yes	No limit	0.47
Malaysia	No	No limit	0.00
Bhutan	No	No limit	0.00
Thailand	Yes	No limit	0.16

Source: World Bank 2012e

Figure 36 Firing Cost (Weeks of Salary)



Note: Firing cost is for employees with 1, 5, and 10 years of employment.
Source: World Bank 2012e

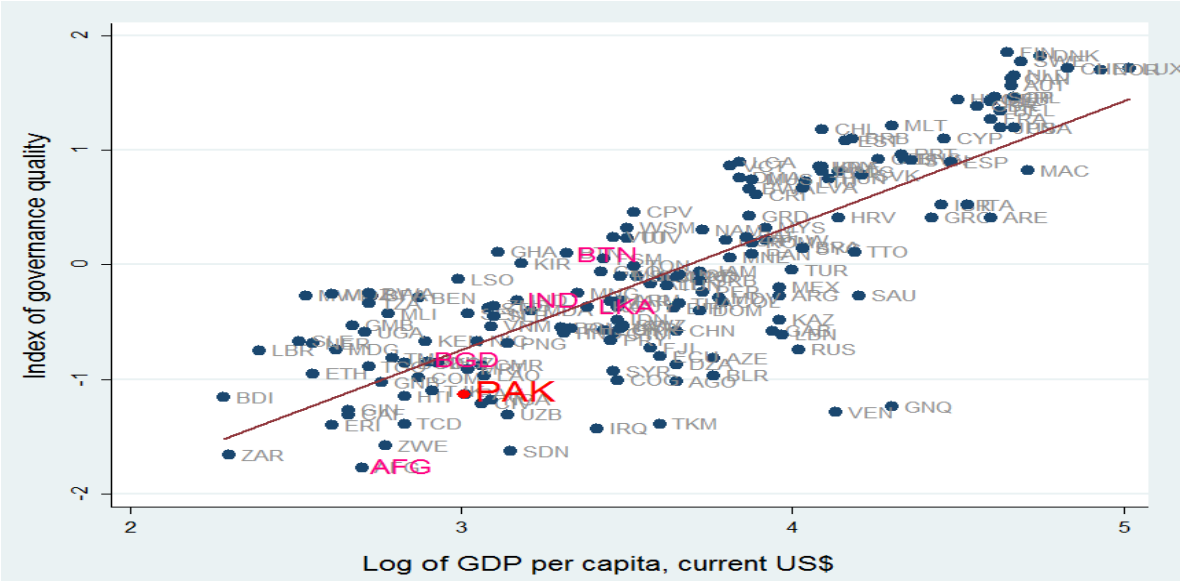
Micro Risks

65. Poor governance is an emerging microeconomic risk, which translates into regulatory obstacles and inefficient civil service, affecting firms' ability to boost productivity, scale and profitability. Excessive regulations provide the scope for corruption, and affect positive coordination externalities among government institutions, especially the civil service. In its framework for economic growth, the government has emphasized on confronting such factors to bring the adequate 'software' to expand the 'hardware' of growth (physical infrastructure) and make it more productive (Government of Pakistan 2011a). This section first considers overall governance and then explores impact of regulatory barriers and inefficient civil service on the productivity and growth.

Weak Governance

66. There is no doubt that weak governance is a major constraint to growth in Pakistan. The quality of overall governance in Pakistan is below average (Figure 37), ranking it among the weakest performing countries worldwide. Pakistan's average governance score of -1.14 is lower than average scores of South Asia, Middle East and North Africa, Latin America and Sub-Saharan Africa. The disaggregated analysis of Pakistan's governance performance reveals that Pakistan regionally ranks lowest on political stability, followed by control of corruption, rule of law, voice and accountability, and government effectiveness. On regulatory quality Pakistan ranks closer to regional average, which is low by worldwide standards, anyway (Table 6). Transparency International also reports on increase in perception of corruption in Pakistan, with its ranking falling from 79th of 91 countries in 2001 to 139th of 176 countries in 2012 (Transparency International 2001, 2012). Similarly, the rule of law index of World Justice Project signals a deeper deterioration with Pakistan's ranking standing at 90th of 97 countries in 2012. This has increased security expenditure of both private firms and the government (World Bank 2009b). Bad economic governance translates into cumbersome procedures and inefficient civil service.

Figure 37 **Governance and Per Capita Income, 2010**



Source: World Bank 2012a, 2012g

Table 6 Pakistan Ranks Low on all Six Governance Indicators, 2011

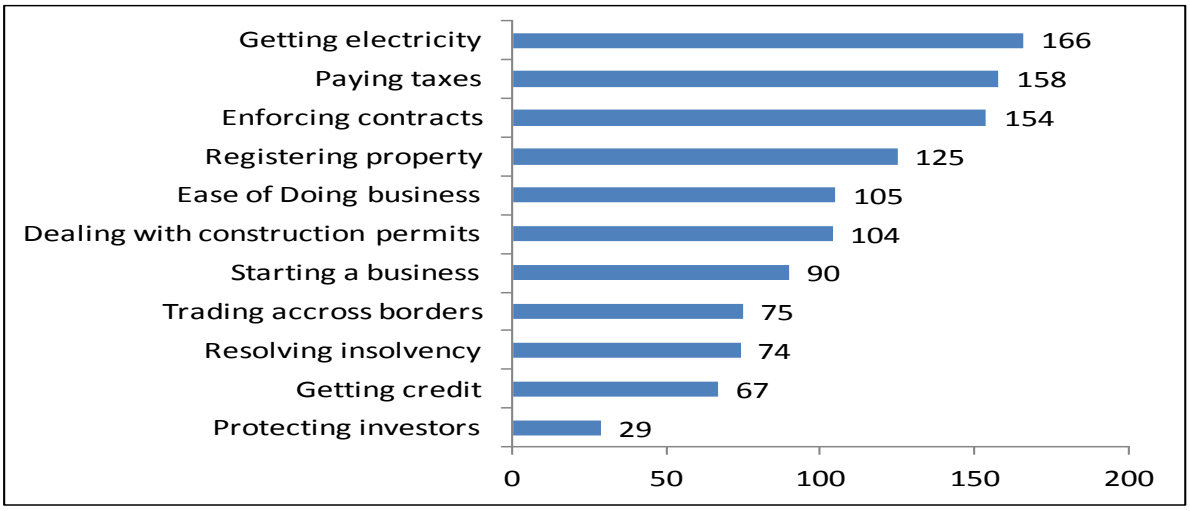
Country	Governance scores (-2.5 to +2.5)						Average
	Rule of Law	Control of Corruption	Political stability	Voice and Accountability	Government Effectiveness	Regulatory Quality	
East Asia	**0.13**	**0**	**0.37**	**0.08**	**-0.06**	**-0.17**	***0.06***
Latin America	**0.05**	**0.24**	**0.25**	**0.39**	**0.22**	**0.18**	***0.22***
Middle East and North Africa	**-0.17**	**-0.26**	**-0.65**	**-0.9**	**-0.15**	**-0.15**	***-0.38***
Sub-Saharan Africa	**-0.71**	**-0.59**	**-0.54**	**-0.6**	**-0.75**	**-0.67**	***-0.64***
South Asia	**-0.62**	**-0.65**	**-1.17**	**-0.5**	**-0.47**	**-0.71**	***-0.69***
Afghanistan	-1.94	-1.55	-2.51	-1.49	-1.46	-1.54	***-1.75***
Bangladesh	-0.72	-1.00	-1.50	-0.31	-0.85	-0.81	***-0.87***
Bhutan	0.13	0.74	0.87	-0.48	0.62	-1.17	***0.12***
India	-0.08	-0.56	-1.20	0.41	-0.03	-0.34	***-0.30***
Nepal	-0.99	-0.77	-1.55	-0.53	-0.79	-0.72	***-0.89***
Pakistan	-0.90	-1.00	-2.70	-0.83	-0.82	-0.61	***-1.14***
Sri Lanka	-0.07	-0.42	-0.54	-0.53	-0.08	-0.09	***-0.29***

Note: Above estimates of governance performance ranges from -2.5 (weak) to 2.5 (strong).
Source: World Bank staff calculations based on World Bank (2012g).

Burdensome Regulations

67. Cumbersome regulatory software has profound and varied effect on business development and growth. Although, the impact of regulatory barriers depends on formality, firm size, market structure, type of industry and, location, majority firms find the formal regulatory requirements as excessive and obstacle to business development. The Doing Business data shows deterioration in Pakistan's ranking on ease of doing business (from 96th in 2011 to 183rd of 105 countries in 2012, placing Pakistan better than most of South Asian countries except Sri Lanka and Maldives). The World Bank's Enterprise Surveys from 2007 and 2010 provides statistics on firms' perception regarding how effective those potential barriers are felt as an obstacle to business development. According to the survey, firms in Pakistan face difficulty in getting electricity, paying taxes, enforcing contracts, registering property, obtaining construction permits, starting business and trading across border (Figure 38)–while differences across provinces are substantial (Kularatne and Lopez-Calix 2012).

Figure 38 Index of Disaggregated Doing Business Components for Pakistan, 2012



Source: World Bank 2012e

68. The key findings of the analysis of disaggregated doing business components are as follows[38]:

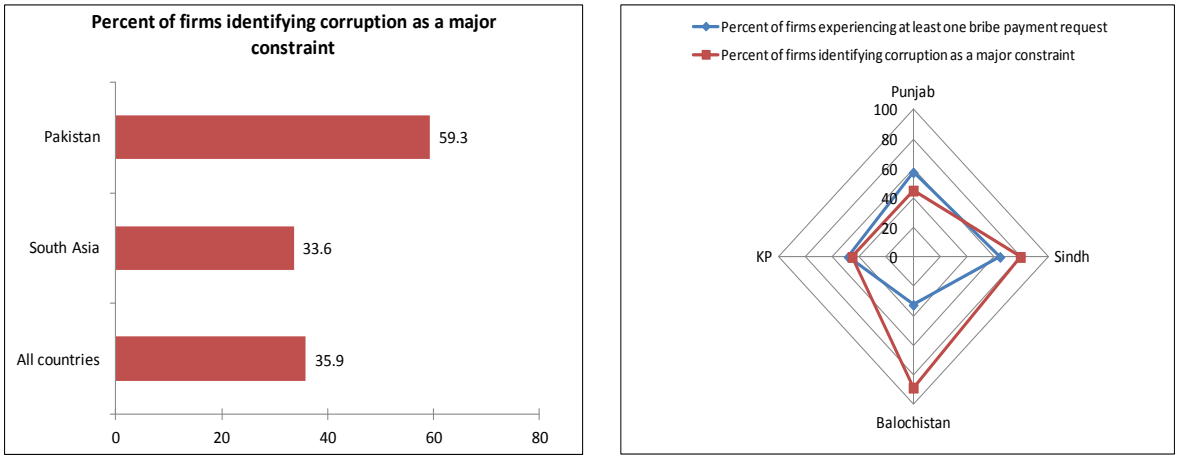
- Pakistan ranks 166 of 183 economies on ease of getting electricity; the median for South Asia is 118. Pakistan's firms, especially small firms, report huge financial losses due to power interruptions. The 2007 Enterprise Survey finds that electricity is the greatest obstacle for 60 percent of small firms and 36 percent of large firms (World Bank 2007b). The overall quality of electricity supply in Pakistan is ranked 126 of 142 countries (World Economic Forum 2012).
- Pakistan ranks 158 of 183 economies on the ease of paying taxes. On average, firms make 47 tax payments a year and spend 560 hours a year (about 14 weeks) filing, preparing, and paying taxes—about double the South Asian average. The cost of paying taxes in Pakistan is slightly below the South Asian average of 18.6 percent of profits, but it rises to 35.3 percent of profits once labor and other taxes and contributions are accounted for. The 2007 Enterprise Survey perceives tax administration and rates as eighth in a list of 13 obstacles (World Bank 2007b).
- Pakistan ranks 154 of 183 economies on ease of contracts enforcement. On average it takes 46 procedures and 976 days in Pakistan, double the time it does in OECD and up 96 days since 2004.
- Pakistan ranks 125 of 183 economies on ease of registering property. It requires six procedures, takes 50 days, and costs 7.7 percent of the property value—a situation unchanged since 2005. Old filing systems, low accountability, and work overload affect this indicator.
- Pakistan is 104 of 183 economies on the ease of dealing with construction permits. It involves 11 procedures, takes 222 days, and costs 262.5 percent of income per capita. The median for South Asia is 123 days.
- Starting a business in Pakistan requires 10 procedures and takes 21 days, which is 3 fewer days than the South Asian median and 8 fewer than in India. The cost is marginal, but the number of procedures is higher than the median for the region (7).
- Trading across borders: It requires seven documents, takes 21 days, and costs USD 660 to export a standard container of goods. The time and cost to export have declined considerably since 2006, from 31 days and USD 996. Pakistan outperforms South Asia but falls short of OECD averages.

69. Excessive regulations run the risk of remaining as unenforced, as together with weaknesses in other regulatory software they provide scope for corruption and feed into low productivity and growth. Cumbersome and costly regulations and weak institutions in Pakistan lead to the issue of lack of enforcement of these regulations, as they increase the likelihood of informal payments to avoid these regulations. The Global Integrity Report 2010 rates implementation of rules as 'weak' in Pakistan, pointing towards lack of accountability and weakening of institutions (Global Integrity 2010), which opens up avenues for corruption. In 2012, Pakistan scored 2.1 on Transparency International's Corruption Perception Index, down from 2.5 in 2011, but worse than Bangladesh (2.7), Mexico (3.0),

[38] Data in subsequent discussion relates to Doing Business 2012 and Enterprise Survey 2007, unless otherwise indicated.

India (3.1), and Brazil (3.8).[39] It affects business development. Firms in Pakistan identify corruption as a major constraint (Figure 39), and report on losing new business because a competitor paid a bribe to win the contract (Transparency International 2011)[40]. In this regard, bribing government officials (bribe rates being higher by international standards) is common for getting things done (World Bank 2009b). The other way of avoiding the regulations is by staying small and informal, which affects overall productivity and growth (Kularatne and Lopez-Calix 2012).

Figure 39 Average Incidence of Corruption as Reported by Firms, 2007



Source: World Bank 2007b

70. The direct harmful effect of regulatory burden is on positive coordination externalities among government institutions. As discussed earlier, Pakistan does poorly on coordination externalities, as evident by its low and declining public investment in infrastructure projects. Bureaucratic steps and procedures foster inefficiency which not only affect the design, but also the implementation of the public project, reducing the investment's profitability. With little attention to completion and efficient use of infrastructure, complementary investment by the government remains inadequate, which in turn, affects private investment.

Poor Civil Service

71. Another factor contributing to bad governance and poor coordination externalities is inefficient civil service, which is also a major binding constraint to economic growth in Pakistan. Most of the government and market failures discussed in this paper are related to corruption, poor government management, and other civil service related issues. The Global Competitiveness Report 2011-12 ranks the quality of Pakistan's public institutions near the bottom: 107th of 147 countries (World Economic Forum 2011). The overall public sector in Pakistan comprises 3.3 million people, which is less than 2 percent of the country's population, and small by international standards (average for low-income countries is 2.3 percent). But at the provincial level the civil service's excessive size (and rapid growth) is

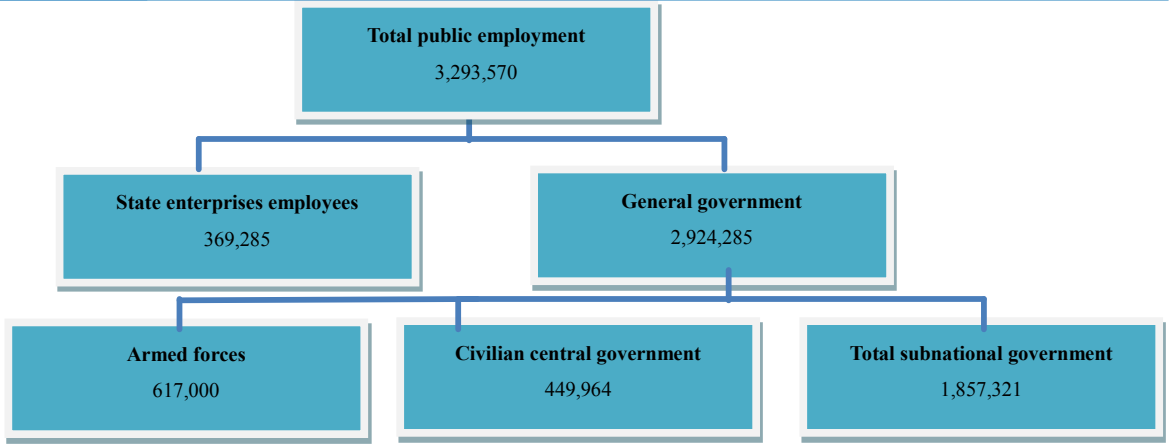
[39] The Corruption Perception Index of Transparency International scores 183 countries and territories from 0 (highly corrupt) to 10 (very clean) based on perceived levels of public sector corruption.

[40] In 2011 about 42 percent of business people in Pakistan claimed to have lost new business because a competitor paid a bribe to win the contract. Comparing with 29 other countries, this level of corruption perception among businessmen places Pakistan as top fourth country after Malaysia, Mexico, and Indonesia, whereas Indian businessmen have less such views (36 percent only).
For details see, http://www.transparency.org/research/bps2011.

more pressing. Provincial governments hire more than half (56 percent) of public employees, and this level is growing. More than four times as many civil servants work at the provincial level than at the federal level (Figure 40). This situation is likely to have worsened with the transfer of most of state functions and responsibilities, following the 18th Amendment to the Constitution, from the center to the provinces (Pasha 2012 and Shah 2012). The macro impact of this situation appears in the form of diversion of increased provincial resources to public salaries rather than investment in social needs or infrastructure (Mukhtar 2012). On the micro side, most of the public employment is in lower grades (about 95 percent in BS 1-16) and this share is highest for the federal government. The ratio of low- to high-skilled public sector positions (BS 1–16/BS 17–22) is higher for the federal government, at 21, than for provinces (12 for Sindh, 14 for Punjab and 15 for Balochistan and Khyber Pakhtunkhwa) (Figure 41). Thus, the federal government has comparatively low qualified/skilled public servants, despite many fringe benefits.

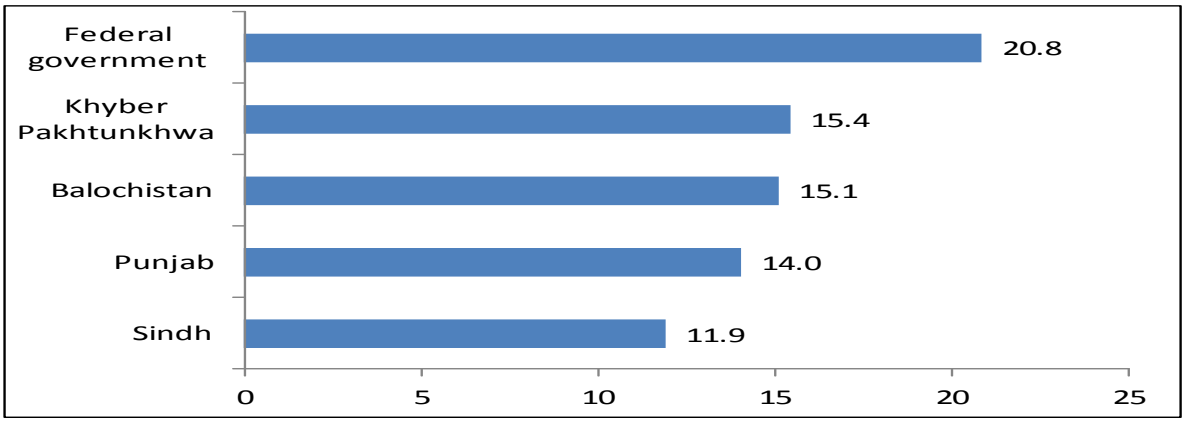
72. On the other hand, productivity in public sector has not corresponded with increase in public sector remuneration. Being subject to severe data difficulties, estimating labor productivity in public sector is a complex challenge. According to rough estimates for 2005, labor productivity in public sector of Pakistan (2000 PPP USD 9,509) was less than half the worldwide average (2000 PPP USD 20,251) (Lopez-Calix and Verduzco 2012). It appears to have stayed the same or even declined. However, the remuneration, especially the fringe benefits, including housing, land, transportation, and club memberships has increased the base pay. These perks are assigned by discretion, especially at highest levels, and require bureaucracy to manage them, which encourage rent seeking and corruption, and reduce productivity (Government of Pakistan 2011a). They also introduce distortion in civil service pay at BS 21 and BS 22 levels. The average ratio of total salary to cash payments increased from 1.8 in 1994 to 3.7 in 2011—more than doubled (World Bank 2004b; Government of Pakistan 2011a). The reforms of 2001 helped reduce the ratio to less than 1.5 for both categories, but they rose again by 2006 in the form of higher allowances. There is a need to restructure or reform the civil service system to introduce the right skills mix at center and provincial level, which will generate incentives for higher productivity in the public sector.

Figure 40 Public Sector Employment in Pakistan



Note: All figures are for 2011, except for subnational government. The subnational government employment data are for 2007-08 and are likely to have increased. Source: For state enterprise employee data, Government of Pakistan (2012d); for armed forces data, "Pakistan Military Strength 2012,": www.Defence.Pk/forums/strategic-geopolitical-issues/163022-pakistan-military-strength-2012-a. Html; for civilian central government data, Government of Pakistan (2012e); for total subnational government data, National Commission for Governance Reform (2008).

Figure 41 Ratio of Low to high-skilled public sector positions, by province, 2008



Note: Ratio computed as (BS 1-16) / (BS 17-22).
Source: World Bank staff calculations based on National Commission for Governance Reform (2008).

Macro Risks

73. The economic growth of a country increasingly relies on sound macroeconomic policies with solid fundamentals. For a growth-enabling environment, a combination of fiscal solvency, low and stable inflation, and an exchange rate regime that avoids excessive volatility and systematic currency misalignment are important, which will also help prevent external imbalances. In order to support sustained growth in Pakistan, the World Bank (2006) had suggested following policy goals:

- *Fiscal solvency*: Maintain a low fiscal deficit (3–3.5 percent of GDP), together with higher tax-to-GDP ratio and expenditures in quality public investment.
- *Low debt*: Reduce public debt-to-GDP ratio and debt as a share of revenues.
- *Price stability at single-digit*: Make price stability (inflation at single digits) as the primary goal of monetary policy.
- *Positive real interest rates*: Maintain real interest rates as positive to encourage savings and lending.

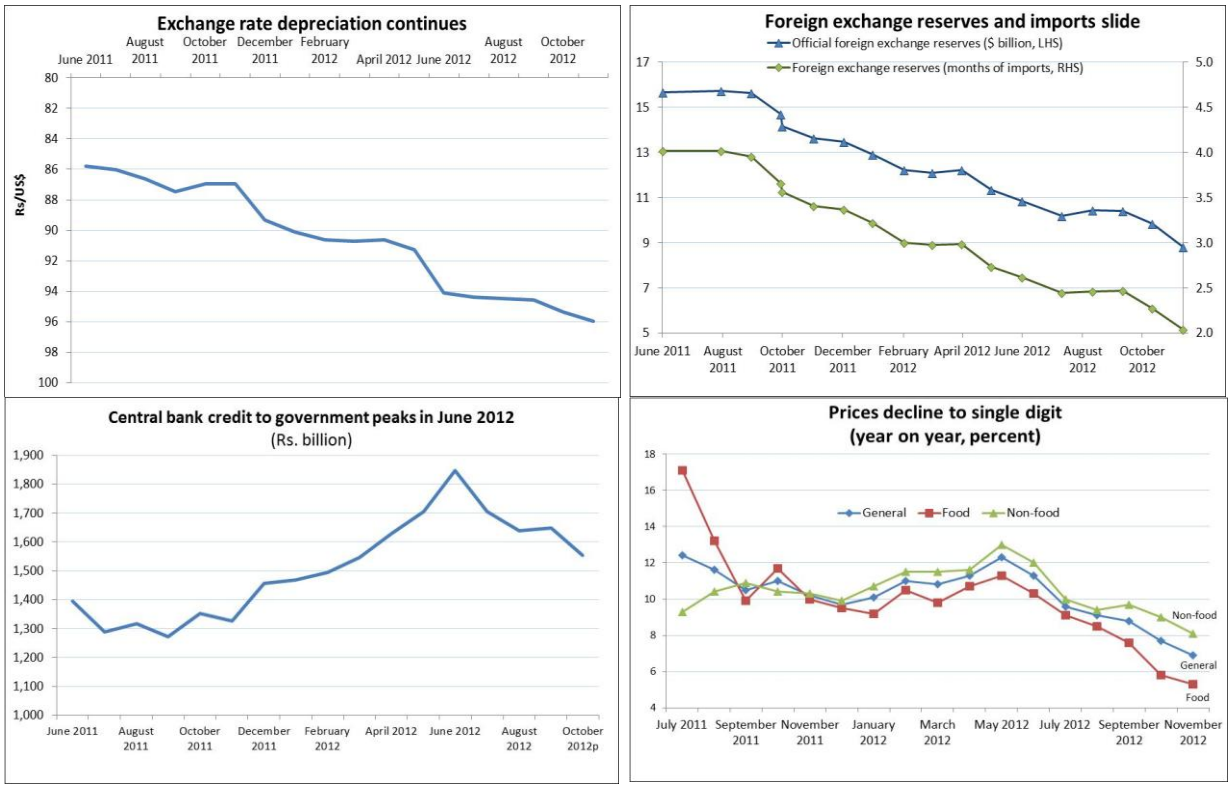
74. The macroeconomic risks are emerging as a major binding constraint to Pakistan's economic growth, suggesting that the country has not been completely following the above policy mix. The fiscal crisis has accompanied double-digit inflation. International reserves are depleting together with low or negligible external inflows and domestic credit. The current account deficit, however, has reduced (projected to fall below 1 percent in fiscal 2013), and inflow of remittances continue to increase—the only positive signs amid currency and fiscal crises.

Currency and Fiscal Crisis

75. Since fiscal 2012, there are signs of another convergence of severe macroeconomic shocks in Pakistan. Even after the closing of an International Monetary Fund program in March 2012, implementation of countercyclical policy mix was continued, leading to deteriorating fiscal, and to a lesser extent, monetary balances (Figure 42). By the end of fiscal 2012, the fiscal deficit stood at 8.5 percent of GDP, mainly owing to huge subsidies to power sector and public/state enterprises. Despite some improvement in tax-to-GDP ratio

(increased from 9.6 percent of GDP in fiscal 2011 to 10 percent in fiscal 2012), public investment was recorded low at 2.6 percent of GDP in fiscal 2011 (down from 3.6 percent in fiscal 2006), before somewhat recovering to 3.1 percent in fiscal 2012. The limited external financing of budget was compensated by accommodating monetary policy, which led to increase in central bank lending to the government, keeping inflation at double digits for almost four years before they dropped to single digits in July 2012. The real interest rates have become positive, but risk-averse commercial banks have been more interested in purchasing government bonds, which crowded out domestic credit. Large oil price hikes and EU financial and economic turmoil have made matters worse, raising import costs and lowering demand for Pakistan's exports. International reserves by December 2012 were at 2 months of imports only. On positive side, strong inflows of remittances and to some extent export dynamics kept the current account deficit from exceeding an estimated 2 percent of GDP.

Figure 42 **Macroeconomic Imbalances in Fiscal 2012**



Note: p is provincial
Source: World Bank staff calculations based on State Bank of Pakistan (2012a)

76. The macroeconomic risks are further boosted by political unrest and natural disasters faced by the country. The estimated annual cost of armed conflict is equivalent to 2 percent loss of GDP (Favaro and Koehler-Geib 2009), while the estimated annual effect of recent devastating floods (in July 2010 and August 2011) on growth were about 2.1 percent of GDP and 0.4 percent of GDP (ADB 2008; Lin and Monga 2010; World Bank 2011a).

77. In short, given poor macroeconomic and micro (governance) conditions of the country, the curtailment of fiscal deficit, improving institutions' accountability (control of corruption) and addressing regulatory barriers are most important for government effectiveness and growth. Improvement in FDI and other financial inflows (from

International Financial Institutions) are uncertain in near future. On the other hand, the financial account of the country is to remain under pressure because of IMF repayments (USD 6,717 million paid over the period FY 2012-14) and financial support to inefficient public sectors. In this situation, there is an urgent need for attention towards improving macro and micro fundamentals to remove barriers to economic growth.

Conclusion and Policy Recommendations

78. Pakistan has the potential to high and sustainable growth with its ideal geography and abundant natural and human resources which could support its growth with the help of regional trade integration. However, the country has not been able to properly exploit this potential, as evident by its declining exports and growth. The country has witnessed few high growth spurts in the past, but could not sustain them. Its growth still heavily relies on agriculture production. Over time, the productivity and physical capital per capita are declining–leading to more labor-intensive production. Whereas, the increasing global competition demands more diversification and structural transformation. This situation poses a huge challenge for policy makers as with stagnated low growth, it would become even more difficult to provide better jobs to growing young population–leading to social problems. Thus, identifying the binding constraints to Pakistan's growth is important.

79. This paper has identified binding constraints to investment and growth in Pakistan by using growth diagnostic framework. It found two groups of constraints to Pakistan's growth: emerging and binding constraints that relate with the unavailability of finance and low returns to private investment (Figure 9, Box 5). The emerging constraints include inadequate infrastructure (energy deficits), high macro-fiscal risks, and inadequate international financing (high country risk and low FDI inflows). The structural binding constraints that persistently affect prospects of sustainable growth in Pakistan are low access to domestic finance, slow productive diversification and high anti-export bias, bad taxation system, and micro risks (bad governance, excess business regulations, and poor civil service). However, low growth is found not to be the direct consequence of low human capital (educational shortcomings), labor rigidities, and exchange rate regime—though these inadequacies somehow affect structural transformation. This section provides a detailed agenda of actions tackling each binding constraint.

Box 5 Binding Constraints to Pakistan's Growth

Emerging constraints:

- Poor access to electricity.
- High macro-fiscal risks.
- High country risk and sudden stop in external (including foreign direct investment) inflows.

Structural constraints:

- Low access to domestic finance.
- Slow productive diversification and high anti-export bias.
- Bad taxation system.
- Micro risks: Bad governance, excess business regulations and poor civil service.

80. The growth diagnostic approach used in this paper helps set some priorities for structural reforms to address binding constraints to growth. With overall objective of economic and (productivity) growth, the scope of reforms is focused on two main groups of constraints: emerging and binding constraints. Pakistan can prioritize reforms by first focusing on emerging constraints, which need to be eased to unleash basic growth thrust. The structural constraints are also important and need to be gradually addressed in parallel to emerging constraints. Further, the Federal Government needs to coordinate with provincial growth strategies. This is particularly important after the 18th Constitutional

Amendment (see section on synergies between federal and provincial strategies in World Bank, 2013).

Addressing the Emerging Constraints[41]

81. Fiscal consolidation is central to safeguarding the macroeconomic stability. It is the key element to strengthen the external position, improve public debt sustainability, and make resources available for much needed development spending. The need for fiscal discipline is also defined in law. The Fiscal Responsibility and Debt Limitation (FRDL) Law directs the federal government to take all appropriate measures to instill fiscal discipline and reduce public debt to prudent limits. The government needs to comply with and preserve main goals of FRDL law to fix its macro-fiscal issues.

82. In tandem with fiscal consolidation, there is a need to raise country ratings by improving security conditions and political stability. The end of conflict would bring multiple peace dividends, fueling output expansion and taking Pakistan off the list of conflict-affected countries. The recent agreement with Afghanistan to bring peace before the end of 2013 could bring interesting prospects. Strengthening political stability would ease the concerns of risk-averse investors about continuously changing business rules. The positive impact of recent first-ever democratic transition on investor's confidence is evident in the form of increase in Karachi Stock Exchange 100 Index.

83. To deal with the power crisis, the government should use a mix of different policies to ultimately reduce power outages (at least to half its present eight hours a day). In the short term, an emergency plan should focus on improving governance. A single-point lead authority would manage power sector reform. The managerial autonomy and professional appointments of competent CEOs in Discos and Gencos (distribution and generation companies) should be ensured. The tariff differential subsidy could be adjusted in three years starting by adjusting the notified tariff to less than 85 percent of the average determined tariff. And line losses and theft would be cut with support of a new electricity bill and proper policing and rewards system. In parallel, medium-term reforms should aim at wholesale energy sector reform. Besides completing the phase out of tariff differential subsidy, important energy (small and big dams) and gas projects should be implemented on a fast track. More domestic gas should be supplied to power generation and Discos should be made autonomous (financially independent, privatized or reorganized as a corporation—following the best example of Karachi Electric Supply Company) institutions with appropriate accountability mechanism in place. Finally, while the circular debt is a symptom and can be unwound over time once the system is put on better footing, consideration can be given for taking it off the books of the energy companies and parking it for now.

Addressing Structural constraints

84. Increasing access to domestic finance[42]. A dynamic private sector requires prompt access to credit. This can be addressed by financial deepening—achieved by fostering competition in banking, developing new financial products, and improving financial markets and people's perception about the banking sector. Policy measures involve both public and private sectors: developing a wide range of financial products, especially targeting SMEs and

[41] For details, see World Bank (2013).
[42] World Bank (2009a) provides ample discussion and detailed policy recommendations on access to finance.

women entrepreneurs through microfinance, small enterprise finance, Islamic financing, and remittances as mode of financing; deepening the State Bank of Pakistan's financial inclusion program will help enhance access of SMEs to financial services; develop insurance protection regime; enhance transparency in public and private credit ratings; strengthen regulations and supervision of equity markets and the banking sector; and reform the collateral system; and improve financial literacy.

85. Boosting productive diversification[43].Pakistan's outlook for structural transformation is gloomy. The government's Vision 2030 discusses Pakistan's potential as an investment destination for global production (Government of Pakistan 2007). The document acknowledges the need to expand knowledge and innovation to drive future growth. It identifies manufacturing, machinery, electronics, automobiles, pharmaceuticals, and chemicals as priority sectors for diversification. In this regard, Rodrik's (2007) ten basic principles for productive diversification policy are helpful (see Box 6).

Box 6 Ten Principles for Productive Diversification Policy

1. Incentives should be provided only to 'new' activities. The main purpose of the policies in question would be to generate new products of comparative advantage. Hence, incentives ought to focus on economic activities that are new to the economy. 'New' refers to both a new product and a substantially new process for producing an existing product—those that could qualify as discoveries or quasi-discoveries. Note how this differs from the focus that often attaches to the support of Small and Medium Enterprises (SMEs). SME support policies are based on the criterion of size—not on whether the activity in question has the potential to spawn new areas of specialization. From the standpoint of growth, what is essential is to get entrepreneurs to try new activities.
2. There should be clear benchmarks/criteria for success and failure. It is in the nature of entrepreneurial 'trial-and-error' process that not all investments in new activities will pay off. In fact, one can even expect only a small fraction of 'trials' to be eventually successful. It is enough to have one salmon success to pay off for scores of failures. But without a clear idea of what constitutes success and observable criteria for monitoring it, recipients of incentives can game public agencies and continue to receive support despite poor outcomes. Ideally, the criteria should depend on productivity, but as it can be notoriously difficult to measure, project audits by business and technical consultants after a set number of years can provide useful indications.
3. There must be a built-in sunset clause. Related to the above, it is important that resources (both financial and human) not remain tied up for a long time in activities that are not paying off. Hence, every publicly supported project needs to have not only a clear statement ex ante of what constitutes success and failure, but also an automatic sunset clause for withdrawing support after an appropriate amount of time has elapsed.
4. Public support must target activities, not sectors. The targets of public support should be viewed not as sectors but as transversal activities that favor several sectors simultaneously. This facilitates structuring the support as a corrective to specific market failures instead of as generic industrial policies. So rather than providing incentives, say for electronics, chemicals, or auto parts manufacturing, government programs should subsidize training programs, feasibility reports for prospect high-value added sectors, infrastructure investment, adaptation of foreign technology to Pakistan's conditions, risk and venture capital, and so on. Thus, the government should be supporting activities that will often span several sectors at once.
5. Activities that are subsidized must have clear potential of providing spillovers and demonstration effects. There is no reason to provide public support to an activity unless it has the potential to crowd in other complementary investments or generate informational or technological spillovers. Public support must be contingent on a rigorous analysis of this sort. Moreover, supported activities should maximize the spillovers.

[43] See Hausmann, Rodrik and Sabel (2008) and Hausmann (2011) for details.
Some strategic bets are in Annexure 5.

6. The authority must be vested in agencies with demonstrated competence. Subject to the constraints discussed below, the authorities in which the responsibility for carrying out promotion is vested need to have enough autonomy and independence to insulate themselves from lobbying, design their work agenda appropriately, and have the flexibility to respond to changing circumstances. This in turn requires that the agencies selected for the purpose preferably have a prior track record of professionalism, technical competence, and administrative effectiveness. When administrative and human resources are scarce, it may be better to lodge promotion activities in agencies with demonstrated competence, even if that restricts the range of available policy tools, than to create new institutions from scratch.
7. The implementing agencies must be monitored closely by a principal with a clear stake in the outcomes and who has political authority at the highest level. Autonomy does not and should not mean lack of accountability. Close monitoring (and coordination) of promotion activities by a cabinet-level politician, a 'principal' who has internalized the agenda of economic restructuring and shoulders the main responsibility for it, is essential. Such monitoring guards not only against self-interested behavior on the part of the agencies, but also helps protect the agencies from capture by private interests. This 'principal' could be the minister of industry or the President. In any case, if the principal is not the President himself, it is important that she or he have the ear of the President, and that this person be viewed as the latter's associate rather than rival.
8. The agencies carrying out promotion must maintain channels of communication with the private sector. Autonomy and insulation do not mean that bureaucrats maintain arms'-length relationships with entrepreneurs and investors. In fact, ongoing contacts and communication are important to allow public officials to have a good information base on business realities, without which sound decision making would be impossible. This combination of bureaucratic autonomy and connectedness is what the sociologist Peter Evans (1995) has termed 'embedded autonomy' in his discussion of successful economic strategies in East Asia and Latin America.
9. Mistakes that result in 'picking the losers' will occur. Public strategies of the sort advocated here are often derided because they may lead to picking losers rather than winners. It is important of course to build safeguards against this, as outlined above. But an optimal strategy of discovering the productive potential of a country will necessarily entail some mistakes of that type. Some promoted activities will fail. The objective should be not to minimize the chances that mistakes will occur, but to minimize the costs of the mistakes when they occur. If governments make no mistakes, it means they are not trying hard enough.
10. Activities need to have the capacity to renew themselves so that the cycle of discovery becomes an ongoing one. Just as there is no single blueprint for undertaking promotion, the needs and circumstances of productive discovery are likely to change over time. This requires that agencies carrying out these policies have the capacity to reinvent and refashion themselves.

Source: Rodrik 2007

86. Removing anti-export bias[44]. The ultimate outcome of export diversification and reducing anti-export bias is raising export-to-GDP ratio (to about 15 percent). This would create a level playing field for domestic firms by promoting domestic competition and improving international competitiveness. In the short term, approval of a plan to remove all trade-related statutory regulatory orders would help liberalize trade (while adopting regulations to prevent new ones in the future). In the medium term, a roadmap to simplify tariff slabs to 3 (0–10 and 25 percent) would be fundamental to eliminate privileges and adopt a simple system. For selected industries, such as automobiles and pharmaceuticals, streamlining special tariff regimes would be required. In the same vein, to remove trade distortions, agricultural trade policy reforms would include implementing uniform and low agricultural tariffs; establishing appropriate price band policy for wheat and sugar; and eliminating fertilizer subsidy, which is a basic driver of effective rates of protection and comes at a high fiscal cost. Before any radical changes are made, the fertilizer policy's cost

[44] See Reis and Taglioni (forthcoming) for details.

effectiveness should be evaluated with the opportunity costs and the possible effect on yields, farm income (especially of small farmers), use of other inputs, and fertilizer use across various products.

87. Reforming tax policy and administration[45]. Tax reforms are part of the broader agenda for creating an enabling environment for private investment, while also supporting public investment. The proposed measures should aim to attain at least tax revenue ratio of 14-15 percent of GDP by 2018. These measures require across-the-board changes to rationalize and simplify taxation, facilitate registration and compliance, and overhaul its administration. This implies a range of reforms, including eliminating exemptions and zero rates to broaden the base, adjusting income tax rates, simplifying tariffs, expanding user-friendly electronic registration and filing, enforcing a zero-tolerance policy for noncompliance and evasion, and overhauling the technical capacity and accountability of Federal Board of Revenue (FBR) staff, especially in information technology systems, auditing, and enforcement. In medium term, granting autonomy to FBR—similar to the State Bank of Pakistan—and creating an oversight body which would set its targets and monitor its accountability would be desirable. At the provincial level, this implies introducing incentives for collecting provincial taxes, enhancing capacity of tax administration, and updating selected rates.

88. Spurring innovation[46]. There is a need for the implementation of a knowledge-driven innovation policy and promotion of clustering of innovators. Pakistan's Framework for Economic Growth underscores the major role of innovation in fostering the growth agenda (major role in productivity, job creation, knowledge sharing). An innovation agenda for Pakistan would establish an institutional framework, strengthen the innovation system, encourage firm-level innovation, and support knowledge creation and dissemination. The agenda needs to consider the interactions among 12 policy pillars involving the three principal actors in an innovation system: firms, government, and knowledge providers. The 12 pillars are fiscal policy, government procurement policies, infrastructure for innovation, small business entrepreneurship, technology and business model acquisition, education, venture capital and commercialization, attitudes toward risk, encouragement of patents, protection of intellectual property, university–industry links, and incubators and technological parks.

Addressing Micro Risks

89. Poor governance is an outcome of failure of institutions and accountability systems of the country. There is a need to strengthen internal and external accountability mechanisms of public institutions, supported by efficient civil service and simple and enforceable regulations. For example, strengthening property rights would mean that enterprises can increase productivity and innovation without a fear of loss. Greater transparency and eventual move towards e-governance would help address many governance issues[47].

[45] A more detailed list of piecemeal and comprehensive tax policy proposals is discussed in World Bank (2009c) and Lopez-Calix and Touqeer (2013).
[46] See Speakman and others (2012) for details.
[47] See Rana, Idris and Touqeer (2013) for a list of overall governance reforms, and World Bank (forthcoming) for reforming institutions of market governance.

90. Reduce cumbersome regulations. Six directions for less cumbersome regulations could improve business environment (note that most of the following actions involve provincial governments):

i. Reduce the burden of paying business taxes

ii. Improve contract enforcement by streamlining filing and court procedures; reducing legal (and court) fees; creating additional courts, mainly for commercial disputes; and expanding court capacities in infrastructure and human resources.

iii. Simplify property registration by computerizing land records, reducing the number of fees, streamlining and consolidating procedures for land registration and transfer, improving accountability and imposing stricter sanctions by enforcing time limits to settle and obtain the final property title, and introducing a flat fee for stamp duty so that properties are not undervalued.

iv. Ease procedures for construction permits. Make inspections more efficient and uniform—moving from random inspections to risk-based inspections at critical steps in construction—and eliminate overlapping agencies that administer bylaws and preside over inspections and approvals.

v. Ease procedures for starting a business by approving a One-Stop Shop (OSS) for registering new entrepreneurs, non-resident companies, and investors. The OSS would integrate all legal formalities required by FBR, Securities and Exchange Commission of Pakistan and other departments like Old Age Benefits Institute. Making online registration services and internet stations more available would facilitate e-services, as only 10.5 percent of the population currently has access to the Internet.

vi. Ease trade across borders by reducing and streamlining documentation requirements, strengthening inland clearance facilities, upgrading electronic data interchange systems, and improving inland transportation, especially Pakistan's railways.

91. Improve civil service[48]. The emphasis should be on making payroll policy transparent and on converting public institutions into performance-based entities (supported by proper incentives) rather than on downsizing staff:

i. Continue converting nonwage allowances (housing, cars) into their monetary equivalent to fully monetize salaries in anticipation of a plan to rationalize the public payroll (almost impossible with current wage distortions).

ii. Define incentives to convert a few institutions as pilots to introduce results-oriented management in the public sector.

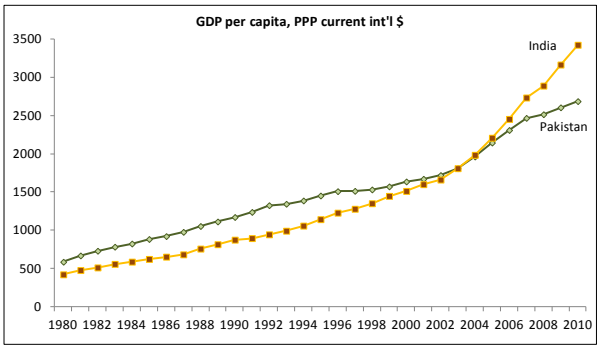
[48] A detailed civil service reforms agenda was presented by the National Commission for Governance Reform (2008).

Annexure 1 – Comparing Growth Patterns of Pakistan and India

During last five decades, 1961-2010, India has achieved higher average GDP growth rate of 5.7 percent. But the annual growth data suggests that it was the last two decades when India posted higher GDP growth than Pakistan. Whereas, for the period before, Pakistan was enjoying better growth (Figure A1.1; Table A1.1), mainly due to capital and labor productivity, which has eroded overtime.

The divergence of Pakistan's economy took effect since nineties. Although, the gap between the GDP volumes of two countries was on a slow rise during 1961-1989 (from USD 54.5 billion in 1960 to USD 208 billion in 1989), it became more pronounced since the nineties, reaching to a level of USD 371 billion in 1999, and USD 847 billion in 2010. The GDP growth rates of Pakistan and India took the path of overall divergence from respective 4.5 and 5.5 percents in 1990 to 4.1 and 8.8 percents in 2010 (Figure A1.2). Yet both countries lag equally in social indicators (in regional and worldwide terms, Figure A1.3).What factors contributed to this reversal?

Figure A1.1 GDP per capita in Pakistan and India, 1980-2010



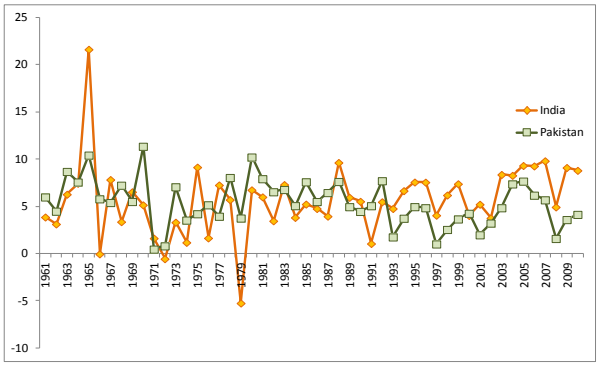
Source: World Bank 2012a.

Table A1.1 Average growth rates in Pakistan and India (percent), 1961-2010

	Pakistan		India	
Years	GDP (annual %)	GDP per capita (annual %)	GDP (annual %)	GDP per capita (annual %)
1961-69	6.8	4.1	6.7	4.4
1970-79	4.8	1.8	2.9	0.6
1980-89	6.9	3.4	5.7	3.3
1990-99	4.0	1.3	5.6	3.6
2000-10	4.6	2.7	7.4	5.7
1961-2010	5.4	2.6	5.7	3.6

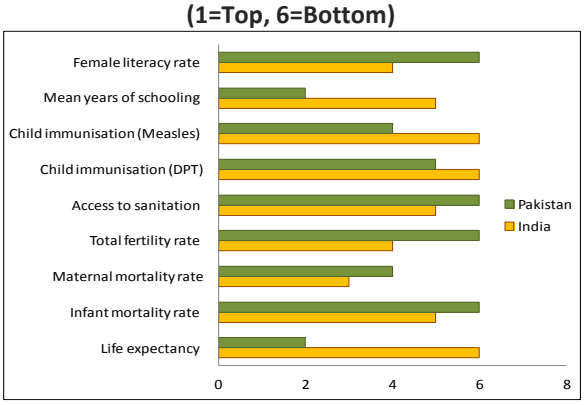
Source: World Bank 2012a.

Figure A1.2 GDP growth rates in Pakistan and India (percent), 1961-2010



Source: World Bank 2012a.

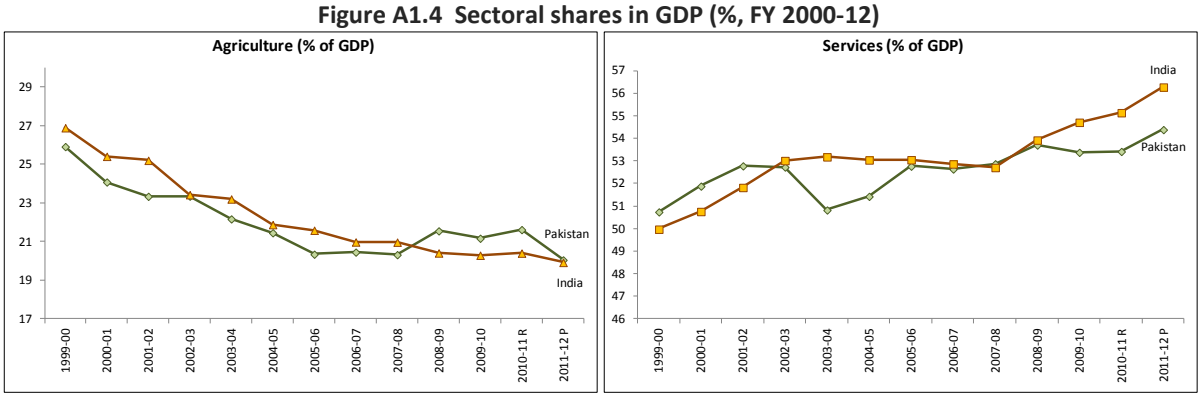
Figure A1.3 Rankings of Pakistan and India on social indicators among other six SAR countries, 2009 (1=Top, 6=Bottom)



Source: World Bank 2012a.

There are three main reasons. First is the strength of India's inter- and intrasectoral shifts. India decreased its reliance on a volatile agriculture sector and increased its dependence on services (Figure A1.4). The share of agricultural output in India's GDP dropped from 32 percent in fiscal 1991 (Government of India 2012) to 20 percent in fiscal 2012, while the share of services rose from 50 percent to 56 percent. Something similar occurred in Pakistan, but milder than in India (see above). However, important agricultural reforms also supported a strong movement of labor from farm to nonfarm activities. Reforms focused on irrigation facilities, agriculture credit, developing markets, research and extension services, and supply of agricultural inputs. These reforms reduced farmers' dependence on weather conditions and improved agricultural productivity (Acharya 1998). Pakistan, on the other hand, failed to comprehensively reform its agriculture sector, which remains constrained by weak markets, production inefficiencies, land ownership problems, adverse weather conditions, and water shortages. Most importantly, Pakistan's Agricultural Produce Markets Act of 1939 gives government control over agricultural markets, which are heavily regulated and fail to meet the needs of domestic commerce or to benefit small farmers. So, in comparison to India, the intersectoral labor shift toward high-skilled labor activities in Pakistan was much less pronounced.

Figure A1.4 Sectoral shares in GDP (%, FY 2000-12)

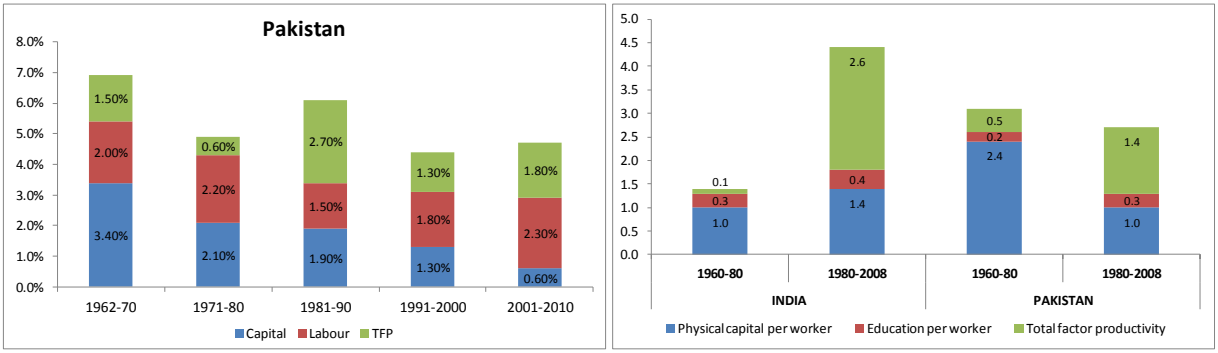


R is Revised, P is Provisional.

Source: World Bank staff calculations based on Government of Pakistan (2012b), and Government of India (2012).

Second is capital accumulation and productivity. Analyzing the sources of growth over the past 50 years shows that capital accumulation and productivity have played important but unequal roles in each economy. In India, the contributions to growth of both factors rose over 1980–2012 compared with 1960–80 (from 1.0 percent to 1.4 percent for capital accumulation and from 0.1 percent to 2.6 percent for productivity). But capital's contribution declined in Pakistan (from 2.4 percent to 1.0 percent) and while productivity rose 0.5 percent to 1.4 percent on average, it was on a declining trend in the 2000s. The period from 1980 to 2012 has been one of intensive growth in India, whose aggregate total factor productivity growth of 2.6 percent was highest in the region (World Bank 2012f). In contrast, Pakistan's economy is experiencing a long-term decline in productivity. And capital accumulation, the main driver of growth in the 1960s, has dwindled in importance (Figure A1.5), reflecting reduced fiscal space, falling foreign direct investment and crowding out of the financial sector (Khan 2006).

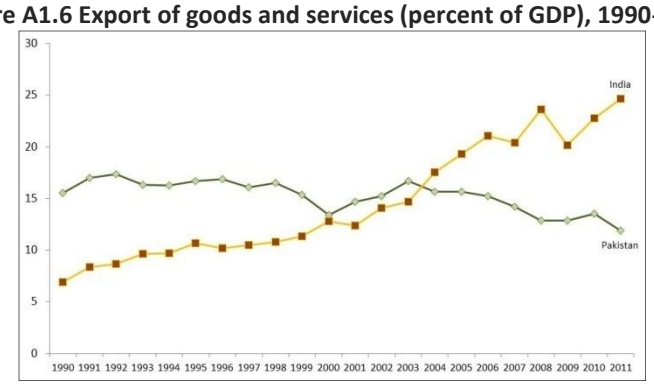
Figure A1.5 Sources of Growth (percent)



Source: World Bank 2012f, and World Bank staff estimates.

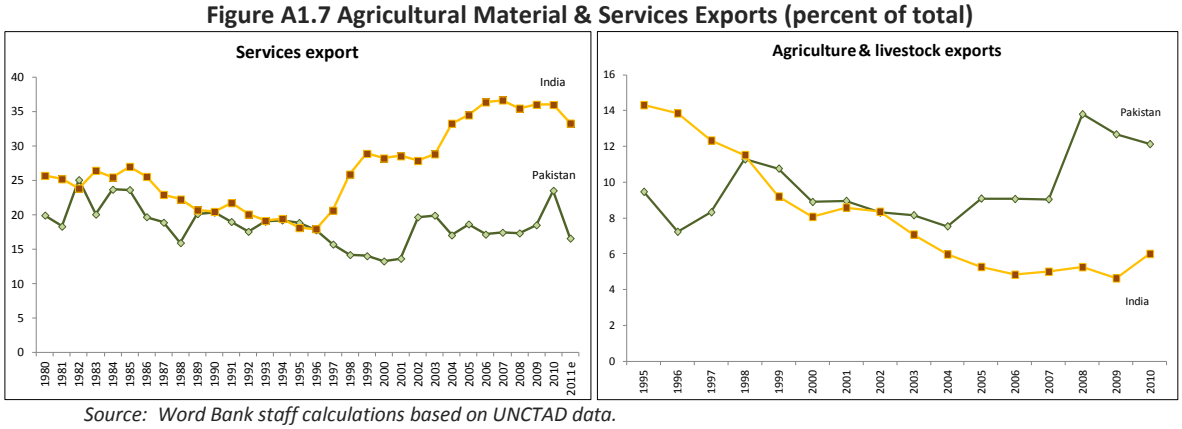
Third (perhaps explaining the first two reasons) is India's sustained policy shift toward trade liberalization and export-led growth, supported by steady development of industrial and services sectors. India's policy shift began in 1980s, supported by political economy factors favoring change, including pressure from industrialists to relax controls and improved export performance and remittance accumulation (Panagariya 2003). The systemic structural reforms undertaken in the 1990s led to large increases in India's share of exports (Figure A1.6). Pakistan's exports, less diversified and being dependent on volatile peripheral goods (Figure A1.7), experienced a downward shift

Figure A1.6 Export of goods and services (percent of GDP), 1990-2011



Source: World Bank 2012a.

Figure A1.7 Agricultural Material & Services Exports (percent of total)



Source: Word Bank staff calculations based on UNCTAD data.

Four main components of India's successful strategy are well known (Panagariya 2003; World Bank 2004; Hausmann and Klinger 2008; Srinivasan and Archana 2009; Lopez-Calix, 2012). The result has been a well-diversified and competitive tradables sector, with export market penetration four times greater than Pakistan's:

i. *Export incentives*. India offered tax incentives to target export industries, reduced interest rates, and assured continuity of preferential export-import policies for at least three years (Joshi and Little 1994).

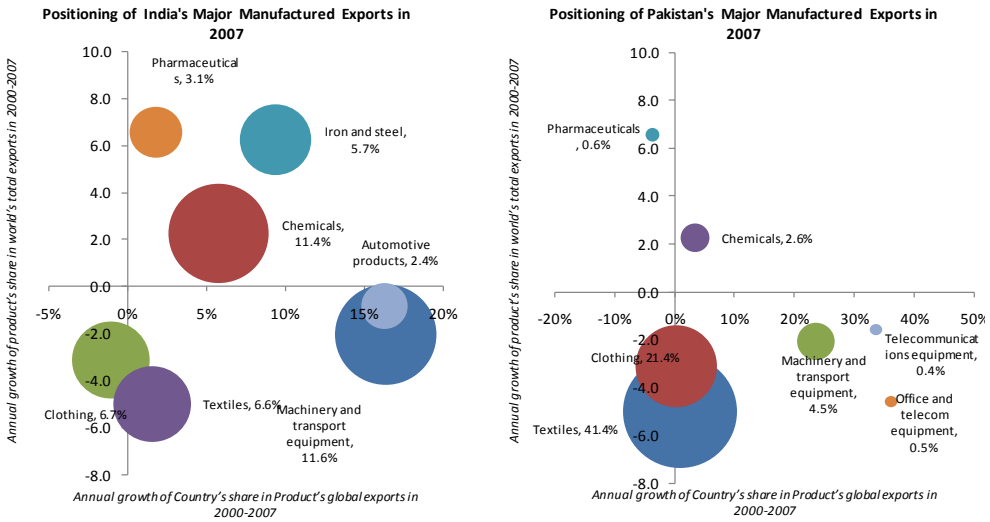
ii. *Import liberalization*. India liberalized import of capital and intermediate goods. Although some high tariffs remain, average industrial tariffs declined. Relaxing internal controls also facilitated enterprise growth. But important opaque nontariff barriers remain.

iii. *Macroeconomic policies*. In the past decade India's broadly prudent economic policies (with a healthy current account balance and positive capital inflows) have supported industrial and export growth and attracted foreign direct investment. In contrast, the deteriorating macroeconomic situation in Pakistan since the late 2000s has not been conducive to attracting foreign direct investment or diversifying exports.

iv. *Active exchange rate policy*. India has actively managed its exchange rate to support its exports at difficult periods of severe external shocks—especially during the aftermath of 2008 global financial crisis. In this period, while Pakistan turned to inward, protective policies, India's deliberate devaluation of rupee complemented its tariff reductions and other export-promotion policies, thus preserving dynamic exports.

Pakistan's export positioning in the world markets is not very encouraging. As illustrated in Figure A1.8, comparing the growth of a given good in world exports with corresponding growth in Pakistan's manufactured exports demonstrates its international competitiveness. If the product is in the upper right hand quadrant (the 'competitive quadrant'), the product is internationally competitive. Pakistan has a minuscule part of its exports (only 2.6 percent) in the competitive quadrant. And manufacturing exports are dominated by textiles (41.4 percent), whose world demand is falling. In contrast, India exports a much greater variety of manufactured products with several of its exports, namely pharmaceuticals, chemicals, iron and steel and automotive parts, in the competitive quadrant.

Figure A1.8 Competitiveness and Performance of India's and Pakistan's Exports, 2000–07 (percent)



Source: Sanchez-Triana, Nabi, and Dezfuli (2012), based on Nabi (2010).

Annexure 2 – Pakistan: Structural Reforms during 1990s and 2000s[49]

The reforms in Pakistan were initiated in 1988 under IMF's Structural Adjustment Programs, which after some gap, restarted in 1990s, and 2000s, and fully/partially implemented during this period. Over time, the reforms have widened scope and scale. While, inflation and deficits containment, trade liberalization, and financial sector reforms remain to be important, infrastructure, social sector and some sector specific reforms also became important overtime.

- Macroeconomic stability: On reducing fiscal deficit, through resource mobilization, i.e. by increasing tax base, containment of current and defense expenditure, and lowering subsidies, most of the measures were implemented resulting in containment of fiscal deficit within limit for a few years during 2000s. Reforms in tax system, to widen its base and strengthen administration were restarted by mid-2000s, with the establishment of large and medium tax payers units in Karachi, Lahore, Rawalpindi and Peshawar for direct tax collections.
- On the monetary policy side, in the interest of market determined interest rates, the country started auctioning treasury bills in 1991 and Open Market Operations were introduced in 1995. Interest on concessional credit schemes, like export refinance, were linked with Treasury bill rates.
- Under trade liberalization reforms, tariffs and most of non-tariff barriers were reduced, and economy transformed to free floating exchange rate regime in 2000.
- Financial sector reforms: Various measures were undertaken to strengthen the health and competitiveness of banking sector, including banking sector regulations, establishment of credit information bureau, privatization of banks, phasing out of subsidies and mandatory credit schemes, removal of caps on deposits and lending rates of banks, abolishment of system of credit ceiling, switching towards market based approach of credit distribution, lowering of statutory requirement for banks, and removal of restrictions on opening up of commercial banks.
- Privatization and improving investment climate: three have been large scale privatization/divesture of state owned entities (including four major banks, PTCL, KESC and number of other entities) undertaken to improve the efficiency of the enterprises and reduce the burden on national exchequer. For improved investment climate, the government privatized the generation and distribution of power and gave the management of these companies to PEPCO. To increase access and reduce cost of telecommunications, private companies were allowed to operate in the country. Moreover, labor laws amendments were made to increase labor market flexibility and female participation in labor force, and corporate taxes have been reduced.
- For improved governance, Public Accounts Committee was set up to oversee public expenditure, new computerized accounting system (PIFRA) was introduced to improve the timeliness and accuracy of financial statements, civil service reforms unit was established, and national procurement rules were adopted for enhanced transparency in procurement procedures according to international standards.
- Social sector reforms: To support social sector, there have been implementation of reforms in education, health and social safety nets, including: primary school

[49] The information in this annex is based onIMF (2002); various Poverty Reduction and Support Credit documents of the World Bank; and Qayum and others (2008).

teachers' qualification, conditional cash transfer scheme for increasing enrolment rates; plan for integrated disease surveillance, conditional cash transfer scheme for TB DOTS coverage; food support program for poor and vulnerable; and establishment of NDM unit to deal with flood, earthquake and other calamities affected people.

Annexure 3 – Growth Diagnostic Methodology

The quest for binding constraints to the economic growth of Pakistan is relevant as it would help introduce specific changes to ease these constraints. From international experience, significant liberalization efforts not being able to translate into growth acceleration is not uncommon. In their study of growth acceleration, Hausmann, Pritchett and Rodrik (2004) find that major economic liberalization are followed by significant growth acceleration in only 18 percent of the cases[50], whereas about 14.5 percent of the cases showed growth acceleration taking place before any major economic liberalizations. So if wholesale structural reforms, including liberalization, have not been followed by growth acceleration in Pakistan, there may be need for smaller and specific changes to ease the binding constraints, and thus leading to sustainable growth.

This paper employs the 'Growth Diagnostic' methodology introduced by Hausmann, Rodrik and Velasco (2005)—further developed by Hausmann, Klinger and Wagner (2008), to identify key issues/constraints to the growth of Pakistan. Given several possible reasons for holding back growth of a country, this approach seeks out the 'binding constraints' that assure higher returns on their relaxing. The approach uses basic economics of growth, whereby growth is determined by the accumulation of capital through private sector. Thus, incentives for private sector investment are at the heart of the approach. The framework begins by recognizing that popular research workhorses for growth diagnostic—cross country regressions, international benchmarking, and growth accounting—are insightful and bring useful findings, but are inconclusive about identifying the most binding growth constraints. These traditional approaches have fed an unfinished, albeit quite rich, debate on growth constraints in Pakistan, whose list of findings is quite numerous.

The rationale for using this model relates with its being country specific, selective in policies, and contrary to general beliefs, is based on second best policy option. First, the model assumes that identical growth strategies of all countries are unlikely to prove productive. Hence, suggested reforms should be country specific and targeted to binding constraints on growth. Second, the model uses practical approach by giving due consideration to priorities and selectivity of strategies. The good economic behavior policies, although are useful for growth, but are not completely and universally applicable to all countries. This is the reason why, Pakistan, like many other developing countries, has been trying to implement policy reforms suggested by international best practices, with slow and sometimes unproductive outcome. The 'growth diagnostic' approach suggests selective and prioritized policy agenda, targeted for the most binding constraints to economic growth. Lastly, the model is often based on a less-conventional path of providing a second-best country specific policy option that explores interaction among market distortions and deals with the failures of the market. Other conventional reforms have yielded mixed results and the successful countries adopted different paths to growth. Therefore, given the uniqueness of the country conditions in its political structure and its market failures, the first-best (or conventional) policy options are sometimes not helpful.

[50]The authors defined 'growth acceleration' as a period of eight years with at least 3.5 percent growth per capita, and that this growth rate was more than 2 percent as compared to previous trend. In this regard, the authors used a sample of different developed and developing countries with episodes of possible growth accelerations in 1957 and 1992.

The Growth Diagnostic approach follows four-steps of growth inquiry, growth hypotheses, differential diagnostics, and growth policies. The first step makes an inquiry about potential drivers and constraints to growth by reviewing social returns, state of private appropriability, and access to finance. The second step proposes a set of hypotheses regarding binding constraints to growth, and the validity of these hypotheses is detailed in the third step. The fourth step considers possible measures to encourage policy discussion.

Step one: growth inquiry

It provides a recent history of country's growth. The point of departure for the inquiry is a simple model in which growth depends on private returns to accumulation (a function of the social return and the private appropriability of this social return) and the cost of financing such accumulation:

$$g = \sigma\{(\ (1-\tau)\ \times\ \rho) - \ r\}$$

where, g represents growth, $(1-\tau)$ is appropriability, ρ relates with social returns, $((1-\tau)\times\rho)$ together represents private return to accumulation, and r is the cost of financing accumulation.

Looking at the recent growth experience of the country there are three broad elements—private appropriability, social returns, and the cost of finance—that might constrain growth. Depending on available evidence, following questions related to each element will be addressed:

- *Low social returns*: is it insufficient investment in complementary factors of production (human capital (education and skills), infrastructure, or poor geography)?
- *Private appropriability*: is it due to high taxation, poor property rights and contract enforcement, labor–capital conflicts, or learning and coordination externalities?
- *Cost of finance*: are the problems with low savings, poor intermediation in domestic financial markets, or poor integration with external financial markets?

The goal of step one is to describe the nature of growth and its constraints in Pakistan's context. The model allows for the analysis to be conducted according to a vertically organized flow diagram, in which broad constraints point toward greater specificity within each category (see Figure 8 in the main text).

Step two: growth hypotheses

Equipped with the analysis from Growth Inquiry, step two proposes a set of hypotheses (storylines) about the binding constraints to growth. Each hypothesis focuses on a category (private appropriability, social returns, and the cost of finance) or subcategory of growth model, and describes which constraints are present and how they hold back growth in the country of reference. Each hypothesis functions as an argument with testable implications; accordingly, each explains not only what is constraining growth but why this constraint (or set of related constraints) could be among the most binding for the country. Step two need not distinguish the most plausible among the minimum of three hypotheses; indeed, some hypotheses may later be ruled out as nonbinding constraints, or more than one hypothesis may be equally valid. Nor does this step require systematic use of evidence to develop a

rigorous argument in favor of or against the hypotheses; the goal is to present three 'stories' about the binding constraints to growth that will later be examined with greater scrutiny (in the form of different self-contained sections).

Step three: differential diagnostics

Each hypothesis developed in step two is examined in detail to determine its validity as a binding constraint. Using all available evidence, each hypothesis is then subjected to rigorous examination in order to determine the extent to which it has effected growth in the country of reference. Wherever possible, direct evidence is used in this analysis. Such evidence makes use of prices and shadow prices (for example, returns to education and investment) rather than quantities (for example, educational attainment or investment/GDP ratio), because examination of relative prices will help reveal whether a constraint is binding. Examples of the use of direct evidence in evaluating alternative hypotheses include:

- If low education is a serious problem, return to skills/education should be high.
- If credit constraints bind, growth should respond vigorously to inflows of foreign resources (aid or remittances).
- If poor transport links is a serious constraint, bottlenecks and high private costs for transport should be observed.

Unavailability of direct evidence will require use of indirect evidence to demonstrate that when constraints bind, agents will seek to maneuver around them. Examples of indirect evidence of this type include:

- High informality, in response to high taxes
- High demand for informal mechanisms of conflict resolution and contract enforcement, in response to poor legal institutions
- Internalization of finance through business groups, in response to poor financial intermediation.

However, available evidence is often insufficient to determine if a particular constraint is the most binding, but may be sufficient to rule out a hypothesis as a binding constraint. The goal of Growth Diagnostics is to apply rigorous, country-specific analysis to determine, to the extent possible, which constraints are most binding on growth in a particular country. Differential Diagnostics is in many respects the most important step in the exercise, because its results will determine the nature of the recommended policy response.

In this paper, two and three have been developed simultaneously.

Step four: growth policies

The last step considers policy reforms most likely to alleviate the binding constraints. The goal of this step, however, is not to provide a specific set of policy recommendations, but to consider the nature of possible actions to alleviate the constraints identified in the previous step, in order to stimulate productive policy discussions with the country of reference. After having identified the market failures and/or distortions most constraining growth, in steps one through three, available policies are considered to address these market failures and distortions. Recognizing that first-best options are often unavailable, this step considers the

advantages and disadvantages of a menu of second-best policies aimed at addressing the country's binding constraints to growth. The policy options are discussed not only in terms of their economic desirability, but also with regard to their context specificity and the political and administrative constraints on their feasibility. Even if Differential Diagnostics leads to relative certainty about the binding constraint(s) to growth, there is still a range of policy options available, and the presentation of growth policies should reflect this range of options.

In its simple expression, the growth diagnostic methodology can be explained through a decision tree comprising a set of factors of production. The output (per worker) can be presumed to be generated by factors of production (which are complements), including physical and human capital per worker, geography, infrastructure, institutions, productive diversification etc. If any of the factor(s) is a binding constraint, the main reason(s) would be lying somewhere in (a) low private returns and (b) high costs of finance[51] (see Figure 8 in main text), because it is the gap between expected returns to assets accumulation and acquisition cost that determines the level of investment effort. Hence, the growth diagnostic identifies binding constraints with the help of the analysis of rate of returns, and the impact of change in the supply of these factors on growth. These constraints would have high rate of returns, but would bring down the returns on other factors of production, implying that because of observed low returns on some factors, something else—associated with (a) or (b)—with high rate of return is constraining growth and bringing down returns of other factors.

[51] Further decomposition of (a) low private returns will lead to the identification of issues being related with low social returns (poor geography, low human capital, or bad infrastructure), or low appropriability (government failure or market failure), (b) high cost of finance may be related with lack of access to domestic savings, foreign savings, or poor intermediation.

Annexure 4 – Pakistan's Export Connectedness: A Visual Analysis

Maximum Spanning Tree

With the help of Maximum Spanning Tree diagram (presented by Hidalgo and others, 2007), we can visualize export connectedness and identify opportunities for product diversification of an economy. The tree is made up of different export products of a country, shown as nodes. The creation of product space or distance between products is based on the inputs (assets and capabilities) required for producing those products, which have varying degree of substitutability for the production of other goods. If existing product capabilities or inputs are adaptable enough to produce new goods, it will be easier to jump to new products (nearby products and even other clusters) and the product space will be closely connected. But it all depends on the current location of the country's exports concentration/comparative advantage in the product space, which also indicates level of available capabilities.

So, to find out if certain goods need similar capabilities, we define a measure of distance between pair of products, which would show up as products in which the country has high comparative advantage. This pair-wise distance creates a product space within which countries jump from one export sector to another. As reflected in the figures below, color codes are used to define linkages between products depending on their proximity. A light blue link indicates proximity of under 0.4, a beige link a proximity between 0.4 and 0.55, a dark-blue link a proximity between 0.55 and 0.65 and a red link is a proximity greater than 0.65. Links below 0.55 are only shown if they make up the maximum spanning tree, and the products are color-coded based on their commodity group. Moreover, these products in the form of clusters of capital intensive and peripheral products appear on different locations on the network. The core of closely connected products in the center of the network mainly comprises machinery and other capital intensive goods. The peripheral products that are weakly connected to other products are located on the outer edges of the space, with specific color coding, such as petroleum products (large red nodes on left side of the network), seafood products (below petroleum products), garments (dense cluster at the bottom of the network), and raw materials (the upper left to upper periphery).

Implications for structural transformation

This heterogeneous structure of the product space has important implications for structural transformation. If a country is producing goods in a dense part of the product space, then the process of structural transformation is much easier because the set of acquired capabilities can be easily used for other nearby products. However, if a country is specialized in peripheral products, then it is more challenging to use the same capabilities for products requiring different capabilities. Thus, the base of a country's production (low-peripheral, or high capital intensive) determines its location on the product space and the process of its structural transformation.

Pakistan's location in product space

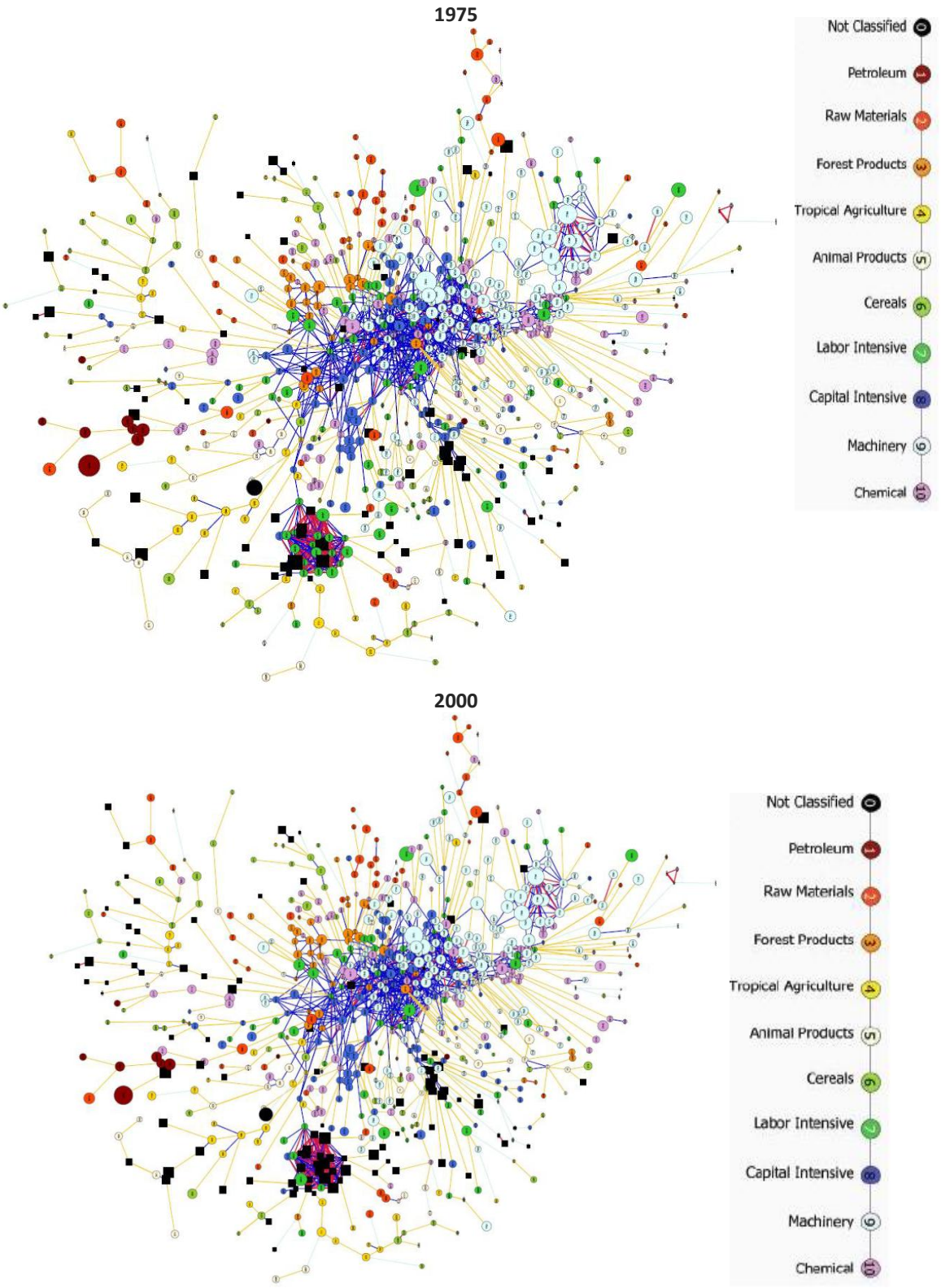
Overall analysis indicates that Pakistan's orientation in product space is based on 'peripheral products', which it has fully exploited. Comparing its position in 2000 with the one in 1975, the country has not made any significant jump to new product areas (see Figure A4.1 and Figure A4.2). First, it has almost no production in the tightly-packed industrial core of the product space, in which structural transformation is rather easy. Instead, the country's

productive capabilities are spread in the periphery of the space, particularly in garments and textiles (lower portion). Second, over this period, Pakistan has consolidated its presence in garment cluster. But this cluster, although is tightly connected within itself (e.g. once you make pants, it is then easy to make shorts and skirts), it is very weakly connected to other capital-intensive products/clusters (e.g. once you make pants, it is not easier to make spark plugs or hard drives with similar inputs). Pakistan has almost fully occupied garments cluster and seems to be left with only few options for structural transformation around these sectors, but they do not lead to other core sectors. This is exactly what the visuals in Figures A4.1 and A4.2 show, i.e. Pakistan did not make any big leaps to occupy new areas of product space between 1975 and 2000.

Moreover, Pakistan has exploited all of the related opportunities within low-skill clusters (garments and textiles), which are already tight (has many competitors, including Bangladesh and Sri Lanka specializing in garments and textile, Figure A4.2). The country is now left with very few nearby opportunities for exploring its comparative advantage, whereas, its competitor countries have diversified their product structure. For example, besides having occupied garments cluster, Philippines has also made jump to another closely linked cluster of electronics (see upper-right black squares in Philippines). Likewise, Thailand and Indonesia have managed to diversify their export structure by dominating not only in garments, but also in industrial core area of electronics. Pakistan, on the other hand, is in a difficult position[52]!

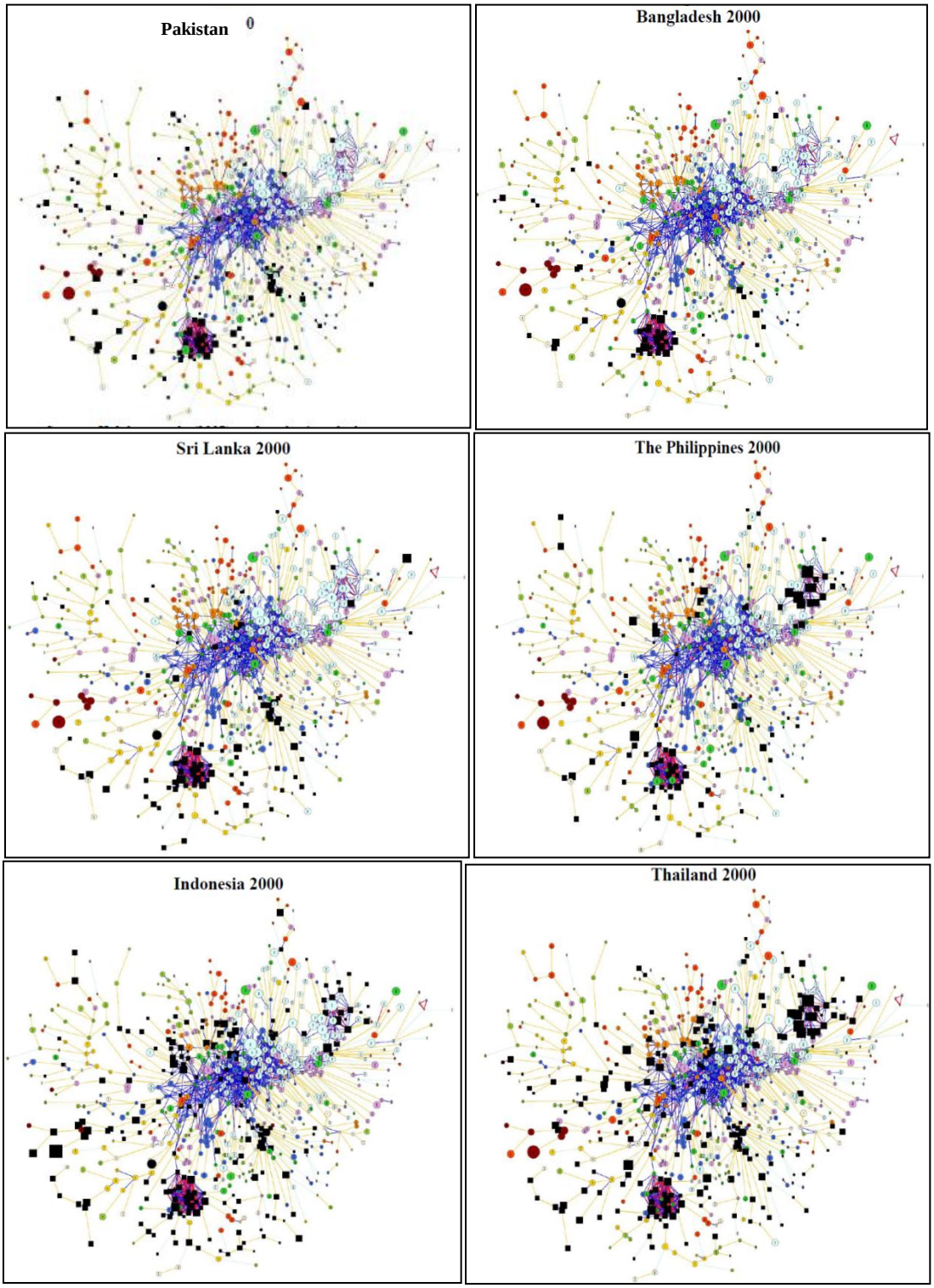
[52] Also, Pakistan ranks 82 out of 128 countries on Economic Complexity Ranking, indicating lower amount of productive knowledge as implied by its export structure.

Figure A4.1 Pakistan's Location in Product Space (1975-2000)



Note: A black square on every product denotes export concentration (significant exports in the particular year).
Source: Hausmann and Klinger 2008.

Figure A4.2 Pakistan's Location in Product Space - International Comparison



Note: A black square over every product shows significant exports in the particular year, showing production/export concentration.
Source: Hidalgo and others 2007; Hausmann and Klinger 2008.

Annexure 5 – Pakistan's Labor Laws and their Impact on Labor Market

Costly Non-Wage Benefits

Pakistan imposes generous entitlements with low coverage which results in low value to workers and can significantly increase cost to employers. The social security and welfare programs help improve the welfare of employees by providing them health care, funds for children's education, income support in old age, and other mandated benefits. Pakistan's major benefit programs include: Worker's Profit Participation Fund (WPPF, tax on profits); Provincial Social Security (ESSI), Employees Old Age Benefits (EOBI) and Gratuity (tax on payroll); group insurance, and education cess (tax on number of workers). These programs are targeted for formal sector employees, largely financed by employers. In general, these programs provide very few benefits to workers value, and have limited coverage as only large and medium sized firms are the ones that cater for such programs for its employees. Firms in textile and garment industries that contain most of the formal employment in Pakistan are less likely to provide these benefits. Thus, along with lower than potential coverage these programs also provide inadequate benefits.

In addition to above issues, the implementation and enforcement of labor regulations is weak. Despite rigid regulations, most of the firms do not consider them to be a major constraint, according to World Bank (2009b). Also, owing to the corrupt practices, the law enforcement is taken as optional and settlement mechanisms are weak, costing substantially to the economy. The inspectors pay selective visits to the firms and ask for bribes/gifts to avoid regulatory charges. This way, the regulations become less constraining for most of the large firms, as they manage/pay to evade the laws.

Annexure 6 – Pakistan's Movement along Efficient Frontier and Unskilled Labor Intensive Sectors

Figure A6.1 Pakistan's Low Hanging Fruit

Product	2006 Exports (USM)	World Market (USB)	PRODY	Strategic Value
Other oilseed processing	6	30	3384	5717
Frozen food manufacturing	13	19	3985	6682
Coated and uncoated paper bag manufacturing	5	12	6560	8022
Forest nurseries, forest products, and timber tracts	12	18	2431	4717
Breweries	12	17	5736	7787
Tree nut farming	2	3	4321	5848
Cut stone and stone product manufacturing	9	10	5208	6680
Greenhouse and nursery production	2	14	2784	5468
Animal production, except cattle and poultry and eggs	6	17	7672	6335
Roasted nuts and peanut butter manufacturing	3	9	4746	6431
Blankbook and looseleaf binder manufacturing	2	4	7497	9360
Coffee and tea manufacturing	11	24	3947	9210
Other animal food manufacturing	1	7	4182	8203
Bread and bakery product, except frozen, manufacturing	7	16	6824	9335
Mattress manufacturing	1	3	5893	8944
Soap and other detergent manufacturing	2	20	5795	10180
Primary aluminum production	1	45	10692	6074
Cigarette manufacturing	0	14	11020	8420
Jewelry and silverware manufacturing	96	174	7081	7008
Ferroalloy and related product manufacturing	0	19	1918	5604
Dry, condensed, and evaporated dairy products	16	48	10094	9103
Wood container and pallet manufacturing	1	3	6487	9382
Veneer and plywood manufacturing	0	9	4049	7759

Products with RCA<0.5 and density above the 90th percentile for all un-exported sectors, excluding minerals and oil. In order of decreasing density.

Note: These are un-exported products with high density.
Source: Adapted from Hausmann and Klinger (2008)

Figure A6.2 Moving Up the Efficient Frontier

Product	2006 Exports (USM)	World Market (USB)	PRODY	Strategic Value
Miscellaneous fabricated metal product manufacturing	17	49	12421	12266
Fabricated structural metal manufacturing	12	26	9969	11935
Plastics plumbing fixtures and all other plastics products	78	100	10074	11883
Prefabricated metal buildings and components	0	11	10366	11850
Electric power and specialty transformer manufacturing	1	15	9251	11422
Household refrigerator and home freezer manufacturing	3	14	6290	11100
Iron and steel mills	42	208	10420	10886
Institutional furniture manufacturing	9	45	7772	10828
Other communication and energy wire manufacturing	1	39	7284	10557
Prefabricated wood building manufacturing	0	6	9776	10499
Frozen cakes and other pastries manufacturing	2	9	9370	10415
Office furniture, except wood, manufacturing	1	3	6687	10367
Other snack food manufacturing	2	11	9436	10355
Paperboard container manufacturing	2	13	6550	10350
Plastics bottle manufacturing	3	5	7857	10004
Mayonnaise, dressing, and sauce manufacturing	0	5	8933	9958
All other food manufacturing	34	39	10418	9900
Cheese manufacturing	0	20	14139	9869
Flavoring syrup and concentrate manufacturing	10	23	10033	9796
Confectionery manufacturing from cacao beans	1	18	4738	9525

Un-exported sectors with density above 75th percentile, top 20 by strategic value.

Figure A6.3 …. And the strategic bets

Product	2006 Exports (USM)	World Market (USB)	PRODY	Strategic Value
Paint and coating manufacturing	18	24	8803	12595
Plastics packaging materials, film and sheet	18	50	14361	12453
Plastics pipe, fittings, and profile shapes	6	22	9919	12270
Adhesive manufacturing	6	8	11973	11487
Nonupholstered wood household furniture manufacturing	9	60	7416	11456
Other concrete product manufacturing	0	4	9336	11429
Blind and shade manufacturing	3	10	8384	11394
Metal tank, heavy gauge, manufacturing	2	10	5667	11370
Aluminum sheet, plate, and foil manufacturing	1	39	10976	11339
Showcases, partitions, shelving, and lockers	1	8	10021	11297
Tire manufacturing	4	47	13251	11151
Metal window and door manufacturing	0	9	7106	11145
Reconstituted wood product manufacturing	3	9	13780	11110
Tire cord and tire fabric mills	1	6	28470	11018
Other household and institutional furniture	0	28	8006	10884
Fabricated pipe and pipe fitting manufacturing	0	4	12074	10814
Wood office furniture manufacturing	1	3	11119	10646
Boat building	0	12	12213	10519
Gypsum product manufacturing	0	2	3494	10374

Un-exported sectors with density above 50th percentile, top 20 by strategic value.

Figure A6.4 Unskilled Labor Intensive Sectors

Product	Exports (USM)	Market (USB)	PRODY	Strategic Value	Density	Unskilled Labor
Cigarette manufacturing	0	14	11020	8420	0.15	0.852
Other tobacco product manufacturing	1	3	6239	8214	0.12	0.852
Logging	0	9	6455	9456	0.12	0.835
Cattle ranching and farming	0	7	4314	8796	0.13	0.801
Poultry and egg production	1	3	4907	8885	0.14	0.801
Forest nurseries, forest products, and timber tracts	12	18	2431	4717	0.17	0.797
Lime manufacturing	0	1	4278	9089	0.13	0.797
Clay refractory and other structural clay products	1	6	8626	11846	0.11	0.793
Gypsum product manufacturing	0	2	3494	10374	0.13	0.793
Other concrete product manufacturing	0	4	9336	11429	0.13	0.793
Ceramic wall and floor tile manufacturing	0	13	8322	8042	0.15	0.793
Cut stone and stone product manufacturing	9	10	5208	6680	0.17	0.793
Asphalt shingle and coating materials manufacturing	0	2	11374	11024	0.11	0.793
Nonclay refractory manufacturing	2	6	7211	11366	0.09	0.793
Oilseed farming	12	22	2153	5617	0.13	0.754
Grain farming	7	40	5252	7345	0.15	0.754
Sugarcane and sugar beet farming		1	9424		0.09	0.754
Tree nut farming	2	3	4321	5848	0.17	0.754
Wood windows and door manufacturing	0	5	7810	9504	0.13	0.724
Wood container and pallet manufacturing	1	3	6487	9382	0.15	0.724
Reconstituted wood product manufacturing	3	9	13780	11110	0.13	0.724
Engineered wood member and truss manufacturing	1	6	8440	10596	0.10	0.724
Veneer and plywood manufacturing	0	9	4049	7759	0.15	0.724
Greenhouse and nursery production	2	14	2784	5468	0.17	0.709
Animal production, except cattle and poultry and eggs	6	17	7672	6335	0.17	0.707

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