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Low Private Investment and Government Failure as the Binding Constraints to Pakistan's Economy Growth Diagnostics Analysis

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Abstract

This research targets the most binding constraints in the economy of Pakistan during the period from 2007 to 2013 using Husmann-Rodrick-Vilasco (2005) decision tree. The growth diagnostics proves that the economy of Pakistan undergoes and passes from the stages of dilemma and huge economic complexities during this period. The economic growth of Pakistan is continuously being affected by structural problems including domestic energy crisis, low investment, high inflation, and security issues. Growth diagnostics points out to four major constraints to economic growth of Pakistan and these are: energy crisis, inadequate market development, poor performance of institutions, and lack of efficient public sector management. Only two of these constraints are explained in this study including low level of private investment and government failure. For policy implications, several areas like private sector growth, good governance, institutional strength, market development, macroeconomic stability, infrastructure development are important to make considerable reforms.

Keywords: Binding constraints, Growth diagnostics, Economic growth, Pakistan

Introduction

Growth performance of Pakistan is volatile throughout its history. It has seldom faced smooth patterns of growth. Its growth history started with its partition in 1947. The newly established government of Pakistan was deprived of institutions, human capital, and resources to develop the economy rapidly. It was a great job to grow in such situation. Therefore, rapid industrialization was made as a central requirement and as a medium for economic growth during 1950s. Investment was increased both in physical and human capital and created strong economic institutions, notably State Bank of Pakistan, WAPDA (Water and Power Development Authority), PIDC (Pakistan Industrial Development Corporation), and PICIC (Pakistan Industrial Credit and Investment Corporation). Average economic growth rate had been 3.4 per cent per annum in the 1950s.

During 1960s, Pakistan has experienced higher episodes of growth. Average annual real GDP growth rates were shot up 6.8 per cent in the 1960s and Pakistan was seen as a model of economic development around the world. The manufacturing sector expanded by 9.0 per cent annually and various new industries were set up. Agriculture grew at a respectable rate of 4.0 per cent with the introduction of green revolution technology. In 1970s, the state role vastly expanded in economic activity by nationalizing educational institutions, banks, insurance, and a number of heavy industries. The oil price shock of the 1970s, liberalization war of Bangladesh 1971, droughts, floods and the withdrawal of external assistance adversely affected the economic growth. With loss of fiscal and monetary discipline, income inequalities rose compared to the previous period while inflation accelerated, averaging 16 per cent between 1971 to1977, thereby hurting the poor. The

large-scale manufacturing sector performed very sluggishly, netting a growth rate of only 3 per cent. Average annual real GDP growth rates were decline to 4.8 per cent during 1970s.

GDP grew at 6.5 per cent annually, with agriculture at 4.0 per cent and the manufacturing sector at 9.0 per cent during 1980s. Fiscal deficits, however, widened to 8.0 per cent of GDP despite a decline in development expenditure. Domestic borrowing to finance these deficits did not weaken growth immediately but had serious repercussions for public finances and macro-economic stability in the 1990s. As a consequence, Pakistan had to approach the International Monetary Fund (IMF) for assistance in 1988. Growth performance of Pakistan's economy has deteriorated in the 1990s and shrunk to 4.3 per cent. Agriculture average growth rate was 4.4 per cent during 1990s. Large-scale manufacturing slowed to an average of 4.8 per cent. Services sectors slowed to an average of 4.6 per cent. Poverty rose to 33 per cent, inflation was in double digits. In 1999, Pakistan's total public debt as percentage of GDP was the highest in South Asia – 99.3 per cent of its GDP.

Pakistan became one of the four fastest growing economies in the Asian region during 2000-07 with its growth averaging 7.0 per cent per year for most of this period. As a result of strong economic growth, Pakistan succeeded in reducing poverty by one-half, creating almost 13 million jobs, halving the country's debt burden, raising foreign exchange reserves to a comfortable position and propping the country's exchange rate, restoring investors' confidence most importantly. From 2007-2013, there exist huge fluctuations in economic growth of Pakistan. The economy continues to face numerous domestic and external shocks from 2007 onwards. Economic growth performance was affected from the devastating floods and rains, the internal security hazards, and the energy crisis. The economy of Pakistan during the last seven years grew on average at the rate of 3.6 per cent per annum. The highest GDP attained during these last years was 3.8 per cent in 2009-10. As two to three per cent growth rate is considered "natural rate of growth". It shows that during last 7 years, there is almost stagnation in the economy of Pakistan. Table 1 explains the growth performance in Pakistan during different time periods.

Table 1: Growth Performance of Pakistan (%)

Year	GDP Growth	Decade	Average GDP Growth
2006-07	5.5	1950s	3.4
2007-08	5.0	1960s	6.8
2008-09	0.4	1970s	4.8
2009-10	2.6	1980s	6.5
2010-11	3.7	1990s	4.6
2011-12	4.4	2000s	5.64
2012-13	3.6		
Average	3.6		

Source: Pakistan Economic Survey, 2012-13

The growth episodes observed overtime raises a series of questions like what constraints are binding the growth performance and what policy reforms are needed for considerable economic growth. Therefore, the most important task is to recognize the constraints which bind growth of a country. As Hausmann, et al. (2005) explains that targeting the most binding constraints has important advantages over other approaches to policy selection. This research article looks at particular case study of Pakistan and identifies the most binding constraints to the growth of Pakistan using HRV (Haussman, Rodrick, and Velasco) decision tree and also provides their

empirical evidences. Certainly, it is not a simple matter to find a single binding constraint. There can be uncertainty about the "position" of each constraint in the economy so we can only make a probabilistic assessment of which one is binding. The Present study has been conducted to mark the binding constraints to the economy of Pakistan using data from 2007-2013.

Review of Literature

Hausmann et al (2005) examined that targeting most binding constraints has important advantages over other approaches to policy selection. HRV demonstrated their decision strategy by case studies of EI Salvador, Brazil and the Dominican Republic. They have shown that each country has different binding constraint to its growth. HRV has demonstrated that El Salvador has dull growth in spite of quite remarkable policy reforms. It has experienced a long period of decent growth caused by modest reforms, but recently it is facing a financial crisis. It has low tax revenue, low saving and investment rate, little educational attainments, poor quality of infrastructure, lack of competitive environment and self discovery, macro stability problems (currency deprivation, small inflation rate, low bank spreads, modest fiscal deficit and undersized Government). However, El Salvador is a country with very good institutions with low income. HRV suggest that El Salvador should implement the strategy to support more entrepreneurship and improvement of new business opportunities by replacing traditional cotton, coffee and sugar sector.

Richter et al. (2006) analyzed growth path of Thailand using theoretical framework (Rodrik 2004 and Hausmann et al 2005) for identifying binding constraints to growth. Thailand is one of the most booming developing countries. Its real per capita growth rate (4.8 percent) since 1960 was the seventh highest internationally. From 1987 to 1996, Thailand growth rate was 8.1 percent, the second highest growth rate after China. However, the country faces lower growth rate after 1997-98 Asian Crisis. Richer et al identified that lower growth today shows the end of extensive capital accumulation: After Asian Crisis recovery stands focuses only on exports rather than both exports and investment. Before the Asian crisis Public investment were 10 percent of GDP reached only 6 percent after crisis. The extensive capital accumulation during the high growth period was due to a large capital inflow from abroad, much of it as short-term loans, attracted by high growth rates, low inflation, a liberalized capital market and a fixed exchange rate.

Elena Ianchovichina et al. (2007) used a growth diagnostics approach of Hausmann, Rodrik, and Velasco (HRV) to recognize the most 'binding' constraints to growth in Mongolia. Elena et al. (2007) argues that Magnolia is a small, low-income, mineral-rich, transition economy. Investment is mainly made into a limited number of firms working in mining and construction sector. The low level of private investment in other sectors is due to low returns. The constraints to low returns identified by Elena et al (2007) are untrustworthy transportation services; long and multifarious shipment procedures, including customs and trade rules; taxes distortions; coordination failures (domestic and international) and rising corruption, poor financial intermediation, high cost of finance. By removing these binding Mongolia will enjoy sustained, broad-based growth.

Abdul Qayyum et al (2008) studied the growth diagnostic of Pakistan using HRV decision tree targeting most binding constraints to growth of Pakistan at that time. They used data till 2006. They have empirically proved failure of governance, failure of institutions (legal institutions, educational institutions, labor market institutions and State bank of Pakistan) and lack of competitive environment to be binding constraints in Pakistan. However, they ruled out high cost of finance, low saving rate, infrastructure and human capital to be binding constraint in Pakistan.

J. Rahman et. al (2010) have tried to highlighted the constraints to Bangladesh growth path by using the growth diagnostics framework developed by Dani Rodrik and colleagues (2005). They

have pointed out that the freedom War of 1971 damaged about a fifth of Bangladesh's economy. After that the country has experienced a slow growth path for two decades. The economy's growth performance has improved incredibly from 1990. They have identified that low levels of human capital, poor infrastructure, market failure, low levels of trade, corruption, and complicated regulations are factors which binds the growth of Bangladesh.

Collin Constantine (2013) attempted to recognize the constraints to growth in Guyana using the Hausmann et al (2005) methodology. Collin Constantine (2013) has identified that market failures such as information externalities, the root cause of low level of self discovery, are a binding constraint to long term growth in Guyana. Although Guyana bears low domestic savings and high interest rate; Collin argues that high cost of finance is a nonbinding constraint on private investment sector. The HRV growth diagnostics cannot explain high cost of finance and government failures as binding constraint or not. Collin describes the stagnant economy of Guavana and suggests non-competitive policies to motivate structural transformation and to internalize the information spillover. Collin argues that Guyana has freeze economy structure and entrepreneurship does not have competitiveness and creativity.

Theoretical Framework

The diagonistic growth of Pakistan and its binding constraints are based upon the theoretical frame work developed by Hausmann, R. D. Rodrick and A. Velasco (2005). HRV Growth Diagnostic Tree framework assumes following functional relationships among different variables to explain the growth diagnostic:

Economic Growth = f (private investment & Entrepreneurship); Low level of private investment = f (low return to economic activity, high cost of finance and entrepreneurship); Low return to economic activity = f (low social returns, low appropriability); Low social returns= f (poor geography, bad infrastructure, low human capital); Low appropriability = f (Government failure, market failure); Market failure = f (self discovery problem, coordination problem); High cost of finance = f (bad international finance, bad local finance); Bad local finance = f (low domestic savings and poor intermediation); Where 'f' means 'function of'

An underperforming economy is one where market imperfections and distortions are widespread. These distortions prevent the optimal use of the economy's resources and keep the economy away from its possible productivity frontier. Such distortions create a wedge between private and social valuations of specific economic activities. These wedges can be represented by: $\tau = \{\tau 1, \tau 2, \ldots, \tau k\}$…(1), Where τi represents the distortion in activity i. The distortions can be modeled as constraints on the policy making problem that take the general form: $\mu i^{s} (\tau, ...) - \mu i^{p} (\tau, ...) - \tau i = 0$…(2), Where $\mu i^{s} (\tau, ...)$ net marginal valuation of activity i by society, $\mu i^{p} (\tau, ...)$ net marginal valuation of activity i by private agent. The economic activities depend not just of the set τ of distortions, but on levels of consumption, labor supply, asset holdings, etc. Keep in mind that private and social valuation functions for each activity will depend in general equilibrium on all the wedges in the system. If u is welfare of the average member of society, then the gain in welfare from reducing one of the distortions marginally is:

$d\mu/dt_j = - \lambda_j * \lambda_i [d\{\mu i^{s} (t,\ldots) - \mu i^{p}(t,\ldots)\}] / dt_j$.....(3), $\lambda i \geq 0$, i = {1, 2, . . . , k} are the Lagrange multipliers corresponding to the constraints connected with each of the distortions. The first term on the right hand side of equation (3) captures the direct effect of a small change in tj: a small reduction in tj increases aggregate welfare by an amount given by the multiplier associated with the jth constraint, j. The second term captures the effect of varying tj on the aggregated sum of

the gaps between the social and the private valuation, with the weights corresponding to each distorted activity's own Lagrange multiplier.

The standard growth model consists of number of distortions in the economy yielding the result that along a (constrained) balanced growth path consumption and capital grow according to

˙ct /ct=˙kt / kt = σ [r (1 − τ) − ρ].....(4), Where: c = consumption, k = capital, r = the rate of return on capital, t = the tax rate on capital, actual or expected, ρ= the world rate of interest, s = intertemporal elasticity of consumption and dot over a variable denotes the rate of change over time. In addition, the private return on capital r is given by: r = r (a, θ, x)…(5), where a = indicator of total factor productivity, x = availability of complementary factors of production, such as infrastructure or human capital, θ = index of externality (a higher θ means a larger distortion).

Equation 4 and 5 summarize the possible factors that can affect growth performance. An exercise of growth diagnostics simply consists of reviewing and analyzing these factors to ascertain which of these are the most binding constraints on growth. As the analysis above reveals, all factors (including market distortions and policy wedges) are likely to matter for growth and welfare. The challenge is to identify the one that provides the largest positive direct effect, so that even after taking into account second best interactions and indirect effects, the net impact of a policy change is beneficial. It helps to divide the factors affecting growth into two categories. The basic decision tree of HRV is presented in figure 1 below with arrows leading to 10 bottom boxes (that is, the box from which no arrows extend further).

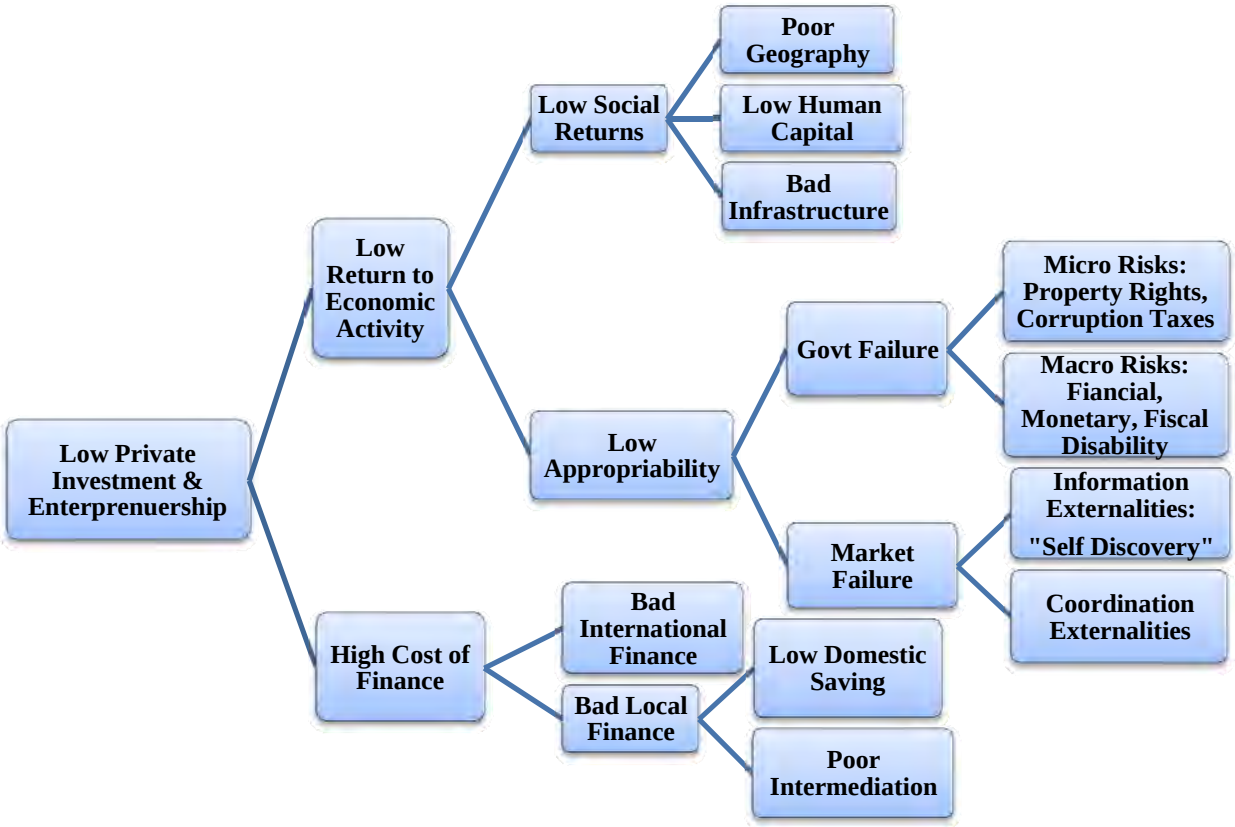


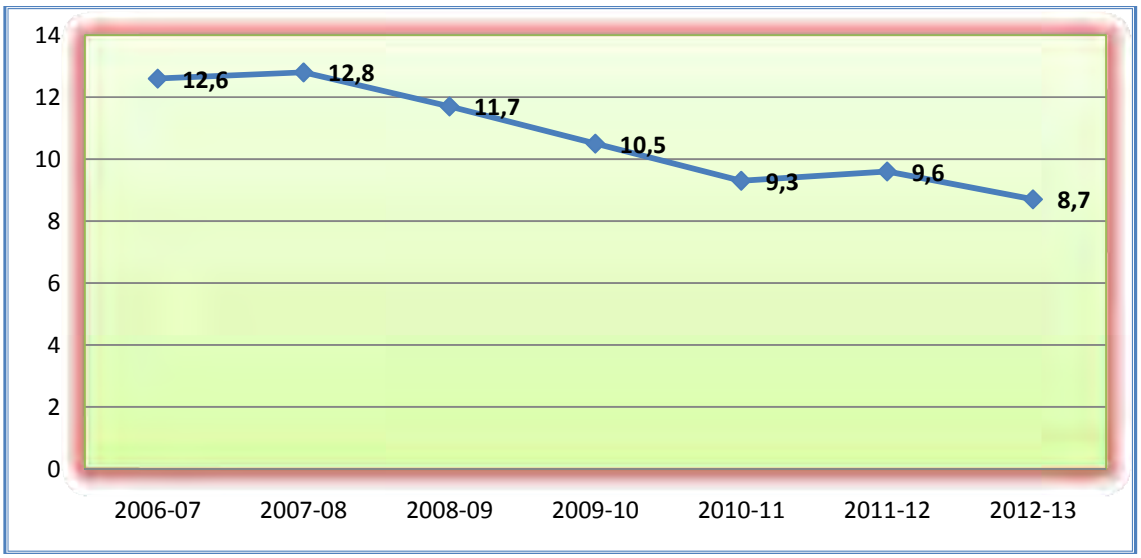
Figure 1: Growth Diagnostic Tree adapted from Hausmann et al. (2005)

Private investment in Pakistan

Private investment has remarkable potential to contribute to growth. Private markets are the engine of productivity growth, creating productive jobs and higher incomes. Private initiative and investment can help provide the basic services and conditions that empower poor people by improving health, education, and infrastructure.

Pakistan's economy continued to face challenges like energy shortages, floods and rains, poor law and order situation, and a mass of other structural obstacles that have seized private investment and growth in the country. Private investors doing business in Pakistan seems to face frequent change in policies, lack of follow up for effective implementation of the good decisions, unfriendly attitude of government officials, corruption. Energy sector in Pakistan has been the focal point of the investors since last many years and evens in the current scenario the major part of the foreign investment is coming in this sector. Figure 2 shows the declining trend of private investment in Pakistan.

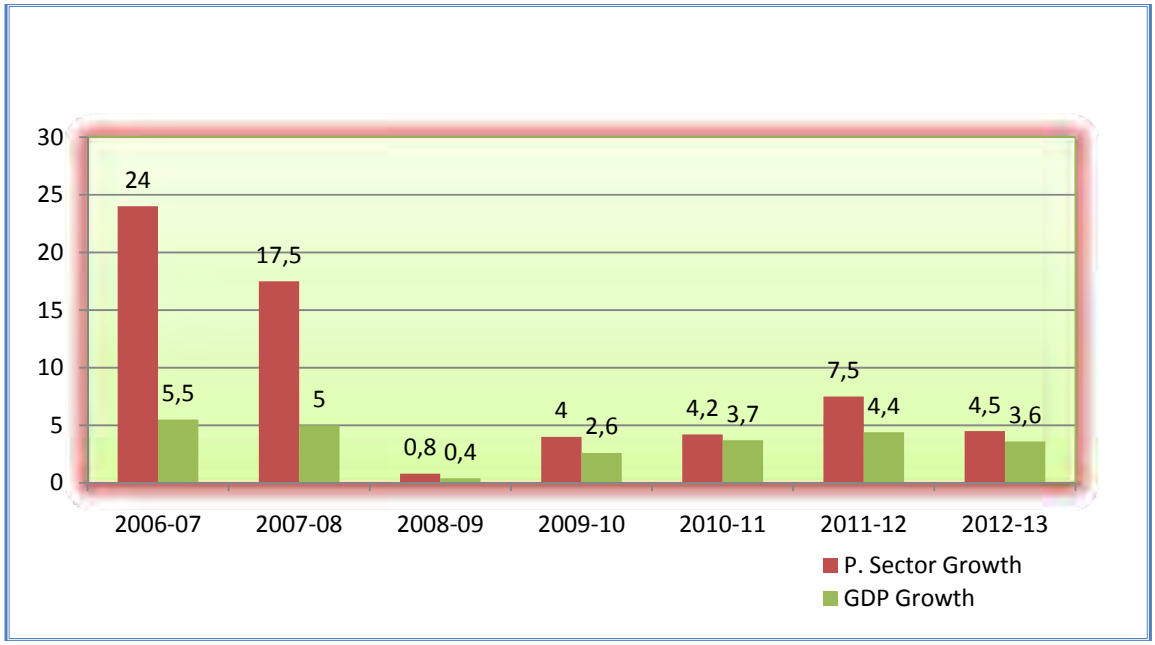
Private investment shows an expansion of 12.8 per cent of GDP in 2007-08 as compared to 12.6 per cent of GDP previous year. Since 2007-08, it exhibits continuous contraction till 2010-12, 11.7 per cent in 2008-09, 10.5 per cent in 2009-10, 9.3 per cent in 2010-11. The private investment expands by 9.6 per cent of GDP in 2011-12 as compared to 2010-11. It again declines to 8.7 per cent of GDP in 2012-13. In short private investment witnessed a contraction of 8.7 per cent of GDP in 2012-13 as compared to 12.6 percent of GDP in 2006-07.



Source: Pakistan Economic Survey, 2012-13

Figure 2: Private Investment in Pakistan (% GDP)

The HRV assumes that economic growth is a function of private investment and entrepreneurship. The figure 3 analyzes this relationship in the economy of Pakistan.



Source: Pakistan Economic Survey, 2013

Figure 3: Private Sector Growth (%) and GDP Growth (%) of Pakistan

It is very obvious from the above chart that there exist a strong relationship between economic growth and private sector growth. It is also examined from the chart that percentage of private sector growth and hence GDP growth is quiet low in Pakistan. Why is it so? To answer this, there is need to analyze the binding constraints of growth of Pakistan's economy.

An Analysis of Plausible Binding constraints in Pakistan

Low Saving

The average gross and net savings as percentage of gross national income of different regions of the world are given in Table 2 during 2011. It is observed that net saving in Pakistan is 9.3 per cent of gross national income which is found very low as compared to many other regions of the world. The savings are 30.3 per cent in East Asia and Pacific, 21.2 per cent in South Asia and 15.6 per cent in Low Income and Upper Middle Income.

Hausmann et. al (2008) criteria, low saving as binding constraint follows: (i) High foreign debt (ii) High current account deficit (iii) High real interest rate to chase lender and (iv) High rate of return on deposit.

Using Hausmann et. al (2005) criteria, it is analyzed that low savings are binding constraint in Pakistan. Macroeconomics indicators are provided in Table 3. The foreign debt & liabilities are increased from 28.1 per cent of GDP to 30.2 per cent of GDP during the period from 2006-07 to 2011-12. Current Account deficit as a percentage of GDP is consistently declining since 2006-07 to 0.1 per cent of GDP in 2010-11. Then it has slightly increased to 2.1 per cent of GDP during the period of 2011-12. Weighted Average Return on deposits shows an increase of 4.13 from 2.6 during the period from 2006-2007 to 2007-08. After that it is almost same till 2011-12 and is not passing through huge fluctuations.

Table 2: World's Average Savings during 2011

Region	Gross Savings as % of GNI	Net Savings as % of GNI
Low Income	26.5	15.6
Middle Income	30.0	15.1
Lower Middle Income	28.1	13.4
Upper Middle Income	31.0	15.6
Low & Middle Income	29.9	15.1
East Asia & Pacific	47.7	30.3
Europe & Central Asia	22.9	6.2
Latin America & Carib	21.5	8.6
Middle East & North Africa	21.5	8.6
South Asia	33.3	21.2
Sub-Sahara Africa	16.8	-2.4
High Income	17.6	5.7
Euro Area	20.1	8.6
World	19.4	6.7
Pakistan	20.4	9.3

Source: World Bank (2013), World Development Indicators.

The Table 3 reveals that the real interest is much low as 0.9 % during 2011-12 and it has even stayed negative during two consecutive years from 2007 to 2009. Low level of real interest in the Pakistan economy in the light of Hausmann, et al. do not measure Pakistan is as savings constrained. In spite of that Pakistan may be considered as savings constrained keeping in view other indicators of Hausmann, et al.

Table 3: Macroeconomic indicators of Pakistan (2006-13)

Year	Foreign Debt & Liabilities (% of GDP)	Current Account Deficit (% of GDP)	Weighted Avg. Return on Deposits	Interest Rates		
				T-Bill Rate	CPI (% Growth)	Real Int. Rate
2006-07	28.1	4.8	2.6	8.9	7.8	1.1
2007 -08	30.8	8.2	4.13	11.8	12.0	-0.2
2008-09	33.5	5.5	4.44	12.0	20.8	-8.8
2009-10	35.5	2.2	4.29	12.3	11.7	0.6
2010-11	31.6	0.1	4.53	13.7	13.7	0
2011-12	30.2	2.1	4.56	11.9	11.0	0.9

Source: SBP Annual Reports & Various issues of Pakistan Economic Survey

Low Appropriability

It was described that HRV Growth Diagnostic Tree framework assumes and explains that low return to economic activity arises by low appropriability and low social returns. And low appropriability in turn affected by failure of Government and failure of market.

Failure of Government

Pakistan is politically an unstable country with various issues. It has experienced twenty seven Prime Ministers in its history of sixty six years. Size of its government throughout its history is considerably large. It consists upon sixteen federal ministers, nine ministers of states, four chief ministers, one President and one Prime minister. Despite sufficient government size, Pakistan is facing extreme challenges in lack of democracy, political unprofessionalism by our leadership, military takeovers, over population, high rate of illiteracy, foreign conspiracy, corruption, load shedding, inflation, no justice, social and religious fractionalization etc.

Government of Pakistan is facing different political issues form past to present. Every time there is new government with new political issue. All of these political issues did nothing except making Pakistan more and more week. Famous political issues of Pakistan are Kashmir, Kalabagh Dam, North and South Waziristan tribal regions clashes & violence with foreign forces. Pakistan government is unable to solve any of these issues.

Pakistan is ranked 27th most corrupt countries of world in international transparency survey of 2013. Transparency International analyzed that political parties are supposed the most corrupt institutions, followed by the police, the judiciary, parliament and public officials. Religious institutions are seen as the least corrupt. High bribery rates for land services in Pakistan, which range from 39 pc to 75 pc, are an especially marked concern. Pakistan continued to experience significant terrorist violence, including sectarian attacks, with loss of more than 2,000 civilian lives and around 700 security personnel in 2012. Government of Pakistan has failed to control external and internal shocks of terrorism.

The Table 4 shows the poor ranks of governance in Pakistan assigned by global competitiveness report 2013.

Table 4: Competitive Indicators

Indicators	**Value**	**Rank/144**
Public Trust in Politicians	2.3	99
Judicial Independence	4.1	57
Govt. Services for Improved Business Performance	3.0	108
Organized Crime	3.4	136
Brain Drain	3.5	62

Source: Global Competitiveness Report (2013)

In global competitiveness report 2012-13, Pakistan's overall score in competitiveness is 124 out of 142. While judicial independence rank is 57 out of 144. Global competitiveness report says, to start a new business, 10 different procedures and 21 days are required in Pakistan. The country is almost running throughout on favoritism and bribery. It reduces the efficiency on which an economy depends, and by increasing the cost of investment, lowers the potential return. Therefore, it is concluded that failure of government is one of the major binding constraints to growth in Pakistan.

Conclusion and Policy Implications

Pakistan is a lower middle income South-Asian country. Like other developing countries, the economy of Pakistan is undergoing many problems. Growth rate of country has fallen drastically during last decade. Using Husmann et. al (2005) methodology, the most binding constraints to Pakistan are analyzed in this research article, which are responsible to slow down the present economic growth (2007-2013) of the country.

Government failure, market failure, failure of institutions, macro risks and bad infrastructure are the key binding constraint to the growth in Pakistan. In short, Pakistan's economy seems to be stuck in multiple binding constraints and only two constraints including low level of private investment and government failure are explained in this research study.

In order to get out of these exceptional adjustments and constraints, the following steps must be taken:

The state has to play a role to incentivize private sector to grow as private sector savings need to be mobilized to bring the economy back on track. At the moment private sector confidence has shattered to invest in Pakistan. Conditions do not exist in Pakistan to allow the private sector to lead infrastructure led-growth. Besides private sector, overall public sector net growth is essential for any long-term sustainable growth in Pakistan. Private sector must accompany and not replace the public sector.

Restructuring the economy to enhance the efficiency and outward orientation of the agriculture and manufacturing sectors. This is necessary for Pakistan to improve its external balance, service its huge external debt, and meet the challenges of globalization. Pakistan should attempt to reduce its foreign dependency through import substitution, industrialization and by obtaining economies of scale of production which will strengthen and stabilize the state. Creation of a strong industrial base is necessary in Pakistan through improved physical infrastructure and increased productivity among manufacturing firms.

Role of government will be as a facilitator not an entrepreneur which will encourage multi-national companies to invest in Pakistan. A comprehensive plan for infrastructure development needs to be launched along with modern teaching & training institutions, so that investment friendly climate may be encouraged.

References

Abdul Qayyum, Idrees Khawaja and Asma Haider (2008) Growth Diagnostic in Pakistan, Pakistan Institute of Development Economics, Working Paper No. 47, Volume No. 24, pp. 433-450.

Collin Constantine (2013) Why Guyana's self discovery is the missing link in its development strategy, University of Guyana, MPRA Paper No. 44205.

Government of Pakistan (2013) Economic Survey of Pakistan 2012-13, Finance Division, Islamabad.

Government of Pakistan (2013) State Bank of Pakistan, Karachi.

Elena Ianchovichina and Sudarshan Gooptu (2007) Growth Diagnostics for a Resource-Rich Transition Economy: The Case of Mongolia, Policy Research Working Paper No. 4396.

Hausmann, R. D. Rodrick and A. Velasco (2005) Growth Diagnostics. John F. Kennedy School of Government, Harvard University. http:// ksghome. Harvard.edu/ drodrik/ barcelonafinalmarch 2005.

Richter, Kaspar (2006) Thailand's Growth Path: From Recovery to Prosperity. World Bank Policy Research Working Paper No. 3912.

Rahman, J. and Yusuf, A. (2010) Economic Growth in Bangladesh: Experience and Policy Priorities. Journal of Bangladesh Studies, 12 (1).