

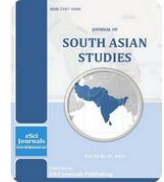


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## PATTERN OF DEVELOPMENT AND SUSTAINABLE ECONOMIC GROWTH IN PAKISTAN: A DESCRIPTIVE ANALYSIS

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### ABSTRACT

Economic growth and development in Pakistan has always been erratic. This study attempts to examine possible causes and ramifications arising as a result. Major macroeconomic, social and environmental variables are examined using data from 1950 to 2013 and policy implications are chalked out. Literature shows that low savings and investment rates, budget deficit, institutional shortcomings, lack of human development and environmental degradation remains some of the major issues faced by the country. These factors together along with bad governance are considered as the major cause of unsustainable development. The descriptive analysis of the growth rates and averages of selected variables is conducted to study the pattern of economic growth and development. The study reveals that Pakistan has experienced unsustainable economic growth since its birth. Savings and investment has remained low and there is persistence of fiscal deficit. Furthermore trade deficit worsens the balance of payment situation. Investment in infrastructure, especially social infrastructure is inadequate and, hence human development is neglected. In addition, there is environmental degradation. Thus there is need for policies that encompass economic, social and environmental sectors. In other words policies should aim at achieving sustainable development.

**Keywords:** Data analysis, Economy in retrospect, Pakistan economy, Pattern of development, Sustainable growth.

### INTRODUCTION

Economic development in Pakistan has always been a slow process. The country has witnessed cyclical movements of GDP growth rates and the social sector has lagged behind. According to Human Development Index (HDI), ranking of Pakistan is 145 out of 187 countries (Human Development Report, 2011). Bad governance, lack of competitive environment and institutional shortcomings are the primary constraints on the economic growth of the country (Hyder *et al.* (2008)). Retrospectively, the process of deterioration of governance, institutions and economy's structure has been an ongoing dilemma. Ayub's regime created social and economic disparities in the country. It locked the economy into an inadequate industrial structure. Z. A. Bhutto's period was marked with increasing budget deficit and growing losses because of nationalization. During Zia regime (1977-1987), Pakistan witnessed a

decline in investment and economic growth as well as increasing poverty. GDP growth rate and private investment declined during the decade of 1990s. The poverty and unemployment increased due to bad governance. President Musharraf's era was not much different, thus Pakistan fails to achieve sustainable economic growth and development (Hussain, 2009).

Pakistan has faced numerous challenges since 1947. The country inherited small industrial base, traditional and backward agriculture, lack of banking and financial institutions as well as entrepreneurship, refugee problem and poor social and economic infrastructure. In spite of all the challenges, the process of socio-economic development in Pakistan continues but with slow speed (Aslam, 2011).

A bird eye view of current socio-economic conditions of Pakistan is given in table 1. It is the sixth most populous country of the world with the population of 180 million. Rural population is greater than the urban population and 22.3% of the population lives below poverty line. This makes poverty alleviation

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one of most important objectives of the development process. At present the economic outlook of the country is bleak. GNP per capita is only \$1372 and inflation rate 10.8%. Real GDP growth rate was 7.5% in 2004. After the world financial crisis (2008) it

declined to 1.7% (2009) and now it is only 3.7% (2012). The public debt also increased after 2008, from 55.5 % of GDP in 2007 to 58.1% in 2009. It now stands at 59.4% of GDP (Pakistan Economic Survey, 2010-11, 2011-12 & 2012-13).

Table 1. Pakistan: Economic and Social Indicators (2012).

GNP per capita (US \$)	1372	Population Growth Rate (%)	2.03
Real GDP growth rate (%)	3.7	Labor Force participation rate (%)	32.83
National Savings (% of GDP)	10.7	Infant Mortality rate (per 1000)	69.0
Total Investment (% of GDP)	12.5	Total Fertility Rate (TFR)	3.4
Inflation rate (CPI)	10.8	Crude Birth Rate (per 1000)	27.2
Fiscal Deficit (% of GDP)	5.0	Crude Death Rate (per 1000)	7.2
Trade balance (Million \$)	-12683	Pop. Living below poverty line (%)	22.3
Population (Million)	-	Life Expectancy at Birth (Years)	
Rural	113.16	Male	64.3
Urban	67.5	Female	66.1

Source: Pakistan Economic Survey, 2012-13.

In addition to financial resource constraint and insufficient infrastructure investment there are also limitations posed on economic growth because of the shortage of natural resources and destruction of environment, as was pointed out by Club of Rome many years ago (Anderson *et al.*, 2003). It is this particular reason that makes sustainable development one of the important topics in modern economics and it has become a goal in development strategies of many countries. Today importance is being given to environmental concerns while mapping out the policies for developing countries because of the linkage between the two. There is no universal definition of sustainable development but the widely accepted definition is by Brundtland Commission (1987) which states that it is *“the development that meets the needs of present generations without compromising the ability of future generations to meet their needs.”* In other words to achieve sustainable development a country must balance its social, economic and environmental objectives or needs for future, while making decisions today. According to another definition the sustainable development means *“improving the quality of human life while living within the carrying capacity of supporting ecosystems”* (IUCN; UNEP; WWF, 1991).

Sustainable development means that the economic activities should not be extended farther than the level of maintenance of man-made and natural capital stock will permit (United Nations Statistical Office (1992)). The investment in social and economic infrastructure and its maintenance can bring us closer to the goal of

achieving sustainable economic growth as it will increase economy’s potential for growth along with preserving the environmental resources (e.g. by building dams, roads, wind mills, developing infrastructure for the availability of safe drinking water etc).

In Pakistan, savings and investment remain low on one hand. On the other hand, there is poverty (table 1) which is an important cause and effect of environmental degradation. According to environmental performance index (EPI), Pakistan’s rank is 120 and the Trend EPI rank is 72. Pakistan’s environmental performance has shown little to no improvement over the last decade, as EPI rank was 123 and EPI trend rank was 72 in 2000 that shows weak performance. Similarly, GAIN index shows ranking of Pakistan as 140<sup>th</sup> with the score 48.5 and the trend is decreasing instead of improving. Vulnerability rank is 133 and readiness rank is 156. It makes Pakistan 21<sup>st</sup> most vulnerable to climate change and 56<sup>th</sup> least ready country to improve resilience.

Hussain (1988) outlines some important issues regarding Pakistan’s economy which had been a hindrance in achieving economic sustainability. It is argued that the economic growth in Pakistan could not be sustained when domestic savings, export growth, debt servicing expenditure and energy export bill are performing badly. The result was budget shortfall and balance of payment deficit. Fragile economic structure, poverty, unemployment, child labor, energy crisis and environmental degradation were argued to be the hurdles in the path of sustainable development. Policies were recommended to achieve the goal of sustainable

development one of which was investment in infrastructure development, especially in energy production.

In another study, Hussain (2009) discusses the process of deterioration of governance institutions and economy's structure concluding that the policies followed in Ayub's regime created social and economic disparities on one hand and locked the economy into an inadequate industrial structure on the other. Z. A. Bhutto's period was marked with increasing budget deficit and growing losses because of nationalization. During the Zia regime (1977-1987), Pakistan witnessed decline in investment and growth side by side an increasing poverty. In 1990s the growth rates as well as private investment declined, while poverty and unemployment increased due to bad governance. President Musharraf's era was not much different thus Pakistan's fails to achieve sustainable economic growth.

#### **REVIEW OF LITERATURE**

Pakistan's growth experience since 1947 to 2007 has also been studied by Husain (2010). It chalks out some of the achievements as well as failures and proposing policies to make growth sustainable for the future. According to the study, the growth experience of Pakistan shows that GDP growth is associated with the growth of total factor productivity (TFP), adequate investment in human capital would have ensured higher per capita income, pattern of growth to pre-poor can be influenced by public policies and that the inequality and regional disparities have increased regardless of the economic performance. Some of the prerequisites for better economic performance are political stability, strong institutions and investment in infrastructure and human capital.

Similarly McCartney (2011) has overviewed the factors affecting economic growth in Pakistan since independence utilizing the methodology of case study. The purpose was to verify the common belief that Pakistan's economy is influenced by external factor rather than domestic forces. The results show that the "dependant" Pakistan belief is misplaced and the economic growth is driven by domestic forces rather than global. The paper has identified five broad episodes of stagnation and growth, three of growth and two of stagnation, and although the growth episodes of Ayub and Musharraf's era does weakly support dependency hypothesis the whole story is different and domestic policy and governance reforms are the factors effecting

growth most. Although the case study methodology has no formal method for the selection of case study the paper argues that it has allowed greater attention to be given to the causal mechanism linking policy and growth, furthermore, there is little correlation between growth rates across time periods in LCDs (evidence is given for India), therefore, case study methodology can be used but it would have been more appropriate if correlation between growth rates across time periods was analyzed for Pakistan.

Iqbal and Zahid (1998) examined the impact of some important macroeconomic variables on the economic growth of Pakistan over the period of 1956 to 1996. Multiple regression analysis is utilized for that purpose. Simple growth equations are used and the variables which are included follow regressions of Easterly (1993) and Barro (1991). Empirical results show that primary education, physical capital and trade openness has positive impact on economic growth where as budget deficit and external debt has negative impact on the economic growth. Furthermore, it is suggested that long-run growth-oriented policies are needed for sustainable growth. The development of said key variables is also examined over time which shows the need for the development of human and physical capital, as well as, the mobilization of domestic resources.

Sherani (2008) has also overviewed the macroeconomic conditions prevailing in the country concluding that Pakistan's imbalances are the result of wrong priorities and the flawed policies rather than exogenous factors. It is argued that the need of the hour is to introduce policies which will help the economy to deal with both the short-run hardships and the long-run sustainability. If the issue of macroeconomic stability is ignored then investment and growth will slow down and ultimately poor will be affected adversely.

Another study by Qayyum *et al.* (2008) has tried to determine the binding constraint on economic growth for Pakistan by utilizing decision tree methodology, following Hausmann *et al.* (2005). The analysis indicates that three binding constraints are poor governance, weak institutional framework and lack of competitive environment. They ruled out low savings rate as a constraint to economic growth because of low interest rates on savings. The decision tree methodology has several advantages but it can give bias results when the outcomes are linked and the data include categorical variables, therefore, these results should be interpreted

with caution.

Qureshi *et al.* (2010) have analyzed the impact of political instability on economic development taking the annual time series data for the years 1971-2008 and the results show a negative relationship between the two. It is concluded that for the long-run sustainability and prosperity of the country a stable political setup is a prerequisite. Political instability index is constructed using principal component technique and traditional variables are utilized to measure the economic development. Simple OLS technique is used for the analysis, which although is often used for time series analysis, is more appropriate for cross-section data rendering it inefficient (Simonoff, 2011). Still the study is a contribution to meager amount of literature on political instability and economic development in Pakistan.

There have been evidence that openness and integration with other countries is not conducive for Pakistan's economic growth. Ahmed and Khan (2008) studied the possible economic impact of the integration of Pakistan with South-East Asian countries concluding that it will not be sustainable for Pakistan. Empirical evidence show that in Pakistan (from 1987-2007) inflation has been above 4% per annum and exchange rate has been moderately volatile. The world wide trade share of the country is 0.2%. Pakistan has 10% of the region's population whereas its contribution to GDP is only 6%. Furthermore, there the long-run economic growth is unsustainable and short-run macroeconomic instability is prevailing in the country. Possible policy measures which could help improve the situation include, increasing investment in human capital, focusing on skill development in the labor market and promoting technological and managerial innovations. In their study Shahbaz *et al* (2008) analyzes the macroeconomic determinants of sustained growth after the Structural Adjustment Program (SAP). The results show that SAP has failed to achieve its objectives. It reveals that inflation and trade-openness have negative effect upon economic growth while remittances and domestic investment have positive impact on growth in Pakistan. Some variables were not included in the study because of non-availability of the data. Therefore it would be useful to conduct more comprehensive study to find out the impact of other important macroeconomic variables on economic growth.

Comparative studies have also been done using data

from various countries and finding the factors affecting the pattern of economic growth and development. Berg *et.al* (2008) have identified the structural breaks in economic growth of 140 countries using an extension of Bai and Parro's (1988, 2003) approach and analyzed some economic and political characteristics which seem to make economic growth sustainable. The results show that growth duration is significantly related to the equality and income distribution in the country, export orientation, democratic institutions and macroeconomic stability.

Syrquin and Chenery (1989) studied the long-run pattern of development from 1950-1983, using panel data from 108 countries. This study tried to determine the structural changes in the economy by focusing on the processes of resource allocation. It concluded that level of development is associated with the structure of the economy and the structural change can be explained by the transformation of economy from agriculture to industrial economy with high income. Furthermore, the pattern of development varies over time depending on the exogenous factors influencing the structural change at micro-level. The degree of trade openness also affects the pattern of structural change and the results suggested that the higher level of trade openness achieved better performance. Alamet *al.* (2007) have investigated the impact of population growth, urbanization, economic growth and energy intensity on environmental degradation in Pakistan. The paper analyzes the impact of all these variables on sustainable economic growth as well. The paper argues that for sustainable development, the environmental degradation must not increase but it should decrease with time. Results show that development depends upon energy use and resulting CO<sub>2</sub> emission. It has significant positive effect on economic growth. The urbanization and population growth also increases the process of environmental degradation and decrease development in the long-run.

It can be concluded from literature review that economic development in Pakistan has been less than satisfactory over the years. The country succeeds in achieving economic growth but it is not sustainable and it is in spurts. Various studies are conducted over the years to identify the reasons behind unsustainable growth. Many conclude that inefficient policies and corruption are among the most important reasons. Different studies utilize data of different set of variables some focus on the

political and institutional inefficiencies others on the degree of trade openness. This study has also made an attempt to determine the underlying variables which can bring economy towards the path to sustainability and prosperity.

**MATERIALS AND METHODS**

The pattern of development is a descriptive analysis. Major macro-variables are used for the analysis purpose. It is a horrendous task to select macro-level variables for studying pattern of development, as an array of indicators is available. Only the most relevant variables are selected in this study to keep the discussion precise. Growth rates are used in order to study overall economic performance. Growth rates are helpful to analyze the general direction and magnitude of economic growth. The GDP, GNP, GDP per Capita, population, agricultural, industrial and services sectors growth rates are used. To compare economic performance over the years, rates of

investment and savings are used. Taking data in percentage form makes it easier to make comparisons. It gives more information than raw data. In addition to this the study uses various indices related to human development to overview country's position in the global economy, as well as, its potential for further development. The infrastructure data is also analyzed to study the pattern of infrastructure development. The study uses water and sanitation data, CO<sub>2</sub> emission, forest density and natural resource rent to analyze environmental degradation in the country. All the variables are taken in real terms. In case of non-availability, the data is converted into real terms by dividing GDP deflator with base year 1999-2000. The data sources are given in table 2. Data is collected from various different sources. In case variables are not available from the same data source, they are compiled using different sources.

Table 2. Data Sources.

Data Source/Year	Published By	Variables
Economic Survey of Pakistan (2011-12 & 2012-13)	Ministry of Finance, Government of Pakistan	National Accounts, Mobile Subscribers, Internet Users, Telephone Lines, Educational Institutes, Health Establishments, Direct Tax, Number of Post Offices, Cargo Handled at Sea Ports
Handbook of Statistics on Pakistan Economy (2010)	State Bank of Pakistan	National Accounts, Sectoral Shares in Gross Domestic Product, Gross Investment, NERI, Private Investment, Gross Total Investment, Foreign Direct Investment, Balance Of Payment, Educational Institutes, Health Establishments, Electricity Generation & Generation Capacity, Direct Tax
50 Years of Pakistan in Statistics (1998)	Pakistan Buearue of Statistics, Government of Pakistan	Population, Labor Force, Crude Birth Rate, Crude Death Rate, Population Growth Rate, Railway Route, Road Length, Air Transport, Number of Post Offices, Cargo Handled at Sea Ports, temperature at selected Centers
Pakistan Statistical Yearbook (2007 & 2011)	Pakistan Buearue of Statistics, Government of Pakistan	Population, Labor Force, Crude Birth Rate, Crude Death Rate, Population Growth Rate, Railway Route, Road Length, Air Transport
Asian Development Bank, Online Database System (2012)	Asian Development Bank	Population Density, Forest Area (percentage of total land area)
World Bank Indicators (2013)	The World Bank, Available at <a href="http://data.worldbank.org/indicator">http://data.worldbank.org/indicator</a>	Sectoral Growth Rates, Domestic Savings Rate, Private Savings Rate, CO <sub>2</sub> Emission, Net Natural Resource Rent, Interest Rate, Energy, Mineral, Net Forest and Natural Resources Depletion, Adjusted Savings, Particulate Emission Damage, Consumption of Fixed Capital
Human Development Report (2011 & 2013)	United Nations Development Programme	Education Index, Health Index, Income Index, Human Development Index

Source: Self compiled by the authors.

By studying the pattern of development not only past performance of the country is unveiled but also the

future prospects are revealed. It provides a guideline for policy makers. It facilitates them with the knowledge to

avoid mistakes of the past. Sustainable development encompasses all the sectors of economy. It shows the importance of preserving the natural environment and resources to meet future human needs. In other words it balances the present as well as future needs of a country. To study the pattern of development in Pakistan the study analyzes the trends of all the important indicators of social and economic development, using data from 1950-2013.<sup>i</sup>Indices, graphs, growth rates, averages etc. are used for that purpose. In order to get more information from the data, five year averages are taken. To make the comparison more comprehensive, different aspects of development are studied.

### RESULTS AND DISCUSSION

At the time of its birth the natural and human resources were underdeveloped in Pakistan. There was neither any industrial base nor skilled labor available. The first decade was a struggle to overcome the challenges which country faced after independence. In spite of this, the early decade was the decade of rapid industrialization. Average GDP growth rate during the first decade remained low at 3.1%, agriculture and industrial growth rates were 1.4% and 9.1% respectively. Inflation was 2.5% and it was perhaps the only time when there was fiscal surplus of 2.2% of GDP. During the second decade, efforts were made to build the institutions which contribute to the economic growth of the country. The economic policies followed during this time period focused on the improvement of GNP growth rate and welfare strategy was based on the “trickle-down effect”. Furthermore, the dependence on foreign aid increased to fill the dual gap (saving-investment gap and import-export gap). As a result, the GDP growth rate increased (6.8% on average) but the social sector was largely neglected, inflation increased to 3.2% and fiscal deficit was 2.1% of GDP on average. The inequality also increased substantially during this time period, proving that “trickle-down effect” was not the right notion to base the economic policies on (Aslam, 2011).

The average GDP growth rate decreased to 4.8% during the Bhutto regime. Industrial and agriculture growth rates were low, 5.5% and 2.4% respectively, and fiscal deficit increased to 5.3% of GDP.<sup>ii</sup>

In the early 1980's, the flexible exchange rate policies and the remittances from abroad helped improving balance of payments. The GDP growth rate also One of the reasons behind low GDP per capita is high population growth rate in the country. In 2011 the GDP,

increased to more than 6% on average but the fiscal deficit remained an issue (7.1% of the GDP).

1990s was the era of political instability in the country which affected the economic conditions as well. The GDP growth rate remained low (4.6 % on average) and fiscal deficit remained unmanageable (6.9% on average).

The decade of 2000s can be considered as mixed success. Where on one hand the major economic indicators improved on average, but the social sector remains neglected.

Bakai (1979) suggested that the policies of the 1960s should once again be implemented as that was the decade of high and sustained economic growth. But the data shows that social sector was neglected during that time period. Similarly in 1980s, there was high GDP growth but again the social sector remained underdeveloped, the need is, therefore, to devise policies that improve not only economic sector but the social sector as well. The most important areas for development are agriculture, industries and the administrative and political systems of the country (Burki and Robert, 1986).

**Economic Growth:** The five year averages of GDP, GNP, GDP per capita growth rates, the net factor income from abroad (every fifth year's value) are given in table 3. According to these results it can be seen that the GDP and per capita growth rates were low during the 1950s. Growth rates increased substantially during the 1960s but decreased once again in the beginning of the decade of 70s. These results are consistent with Bakai (1979). In the late 70s, growth rates increased once again. There was also considerable increase in NFIA, Rs. 258 million in 1975 to Rs. 3152 million in 1980, and further increase during early 1980s (Rs. 28814 million). This is also reflected in the difference between GDP and GNP growth rates. In 1980 GDP growth rate was 4.65, whereas, GNP growth rate was 4.70. Growth rates were also high during early 1990s but decreased later on. This was also a time of political instability in the country. During the early 2000s the growth rates remained low, real GDP growth rate was 1.97% in 2001 and the GDP per capita growth rate decreased by 2.38%. After 2004 growth rates increased but decreased once again, GDP growth rate from 7.2% in 2008 to 3.63% in 2009. The increased average growth rates during the late 2000s were because of the high growth rates during 2005-08. GNP and GDP per capita growth rates were 3.7%, 3.58% and 1.65% respectively.<sup>iii</sup>

Table 3. Output Growth Rates of Pakistan Economy (5-Years Averages)

Year	GDP	GNP	GDP/Capita
1951-55	3.23	3.23	0.75
1956-60	3.08	3.08	0.7
1961-65	6.79	6.79	4.17
1966-70	6.66	6.66	3.9
1971-75	5.52	5.52	2.61
1976-80	4.65	4.7	1.39
1981-85	6.41	6.77	2.84
1986-90	6.43	6.15	3.01
1991-95	4.94	4.8	2.17
1996-00	4.02	3.98	1.37
2006-05	5.25	5.93	2.86
2006-10	5.56	5.83	3.68
2009-13	5.14	5.42	3.22

Source: Handbook of Statistics on Pakistan Economy, 2010, WDI Data Bank & Pakistan Economic Survey, 2012-13.

Sectoral growth rates were quite low during the 1950s. During the 1960s, the industrial and services sectors grew rapidly but the agriculture potential of the country remained untapped, as is shown by the data in table 4. There were droughts in 1970-71, 1971-72 and 1974-75. A flood in 1973-74 and a major rust attack on wheat crop in 1977-78. In addition to this there was a mishap at

Tarbela and public investment in Pak Steel Mill and port Qasim, which diverted the funds from public investment in agriculture and its growth rate decreased to 0.84% (1966-75). These factors were probably the reason because of which growth rates decreased in all sectors during late 70s. During the decades of 1980s and 1990s, there was marginal increase in the growth rates but they decreased again during 2000s as shown by the figure 1.

Table 4. Share of Major Sectors in GDP (%)

Year	Agri.	Indus.	Ser. & Utilities
1950	53.2	9.6	37.2
1955	48	13.4	38.6
1960	45.8	15.5	38.7
1965	39.7	20.7	39.6
1970	38.9	22.7	38.4
1975	32.7	23.5	43.8
1980	30.6	25.6	43.8
1985	27.4	23.4	49.2
1990	25.8	25.6	48.6
1995	24.9	25.8	49.3
2000	25.9	23.4	50.7
2005	22.4	26.3	51.3
2010	20.3	27.2	50.2
2011	20.9	25.8	53.3

Source: Handbook of Statistics on Pakistan Economy, 2010 & Pakistan Economic Survey 2011-12.

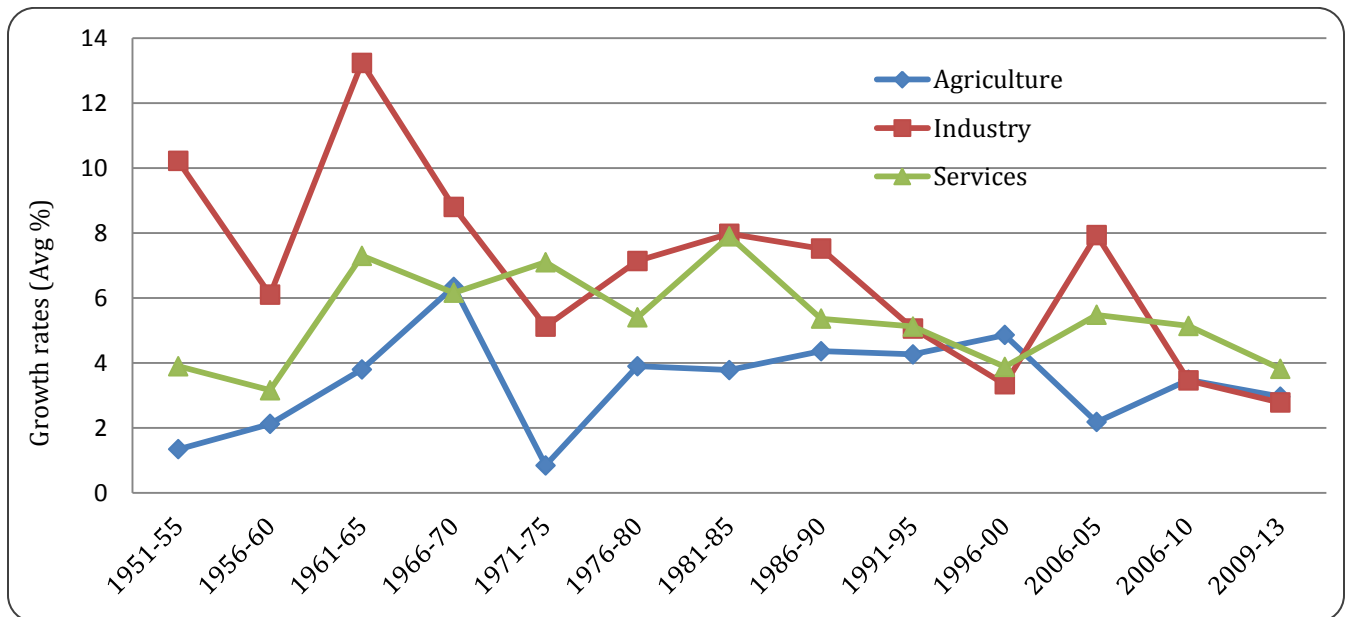


Figure 1. Sectoral Growth Rates (Average %).

Source: Handbook of Statistics on Pakistan Economy, 2010 & Pakistan Economic Survey 2011-12.

It also shows that the agricultural growth rates remain lowest than the other two sectors during all time

periods. Services sector growth rates show lesser fluctuations and industrial growth rates are highest in

the early 1950s and 1960s.

The share of agricultural sector in GDP is decreasing consistently, whereas, that of services sector is increasing as shown in table 4. The share of industrial sector has increased as well but not by much. In 1950 agriculture sector, was 53.2% of GDP and the services sector was only 37.2% of GDP but in 2011 services sector is 53.3% of GDP whereas agricultural sector is only 20.90% of GDP. Industrial sector was 9.6% of GDP in 1950 and now it comprises 25.80% of GDP. In other words Pakistan has shifted from agriculture sector economy to services sector economy.

The current method of calculating GDP and GNP does not include all the activities in the economy. Existence of informal economy renders these indicators insufficient to indicate true state of macroeconomic conditions

Table 5. Financing Investment (% of GNP)

Year	Private Investment	Public Investment	Gross total Investment	FDI	National Savings	Public Savings	NERI
1966-70	9	5.74	12.14	9.44	-	-	-
1971-75	6.09	5.19	12.67	4.26	-	-	-
1976-80	5.32	8.64	18.16	1.51	13.25	1.73	4.91
1981-85	7.59	5.82	18.96	1.6	15.08	2.27	3.87
1986-90	8.55	5.78	19.8	2.54	15.56	1.39	4.24
1991-95	10.42	5.71	21.64	2.61	16.58	2.42	5.06
1996-00	10.21	4.56	19.15	2.8	14.36	0.82	4.8
2001-05	11.94	2.58	18.22	1.54	18.76	2.74	-0.98
2006-10	14.28	1.91	20.99	4.06	13.44	1.11	5.49
2009-13	10.32	0.98	14.98	-	-	-	-

Source: Self calculated using data from various sources.

The private, public, gross and foreign direct investment in Pakistan as percentage of GNP (average %) are shown in table 5. It can be seen that in 1970s the private investment was decreasing. It decreased from 9% of GNP (1966-70) to 5.09% (1971-75) and then further decreased to 5.38% (1976-80). The average private investment is only 10.32% of the GNP (2009-13).

Public investment on the other hand has been decreasing since 1980s. On average it was only around 5% of GNP in 1970s, increased in late 70s to average of 8.64% of GNP but since then it has decreased and stands at only 0.98% of GNP.

According to data the gross total investment, although increasing, is still very low in Pakistan. It was around 12% of GNP in late 60s and early 70s, 18% in 80s, increased in early 90s but again decreased during the late 90s to an average of 18 to 19% of GNP. It has increased in late 2000s to an average of 20% of GNP, now it is 14.98% (2009-13).

prevailing in the country. The informal or black economy is that part of the economy which is not monitored by the government and hence not taxed. Literature shows that black economy and tax evasion has been increasing in Pakistan since 1980s (Ahmed & Ahmed, 1995). More recent work shows a decline in informal economy during 2000s. According to an estimate currently 20% of economic transactions are taking place in informal sector (Arby, *et al.* (2010)).The role of informal economy is important and it must not be ignored while making inferences using traditional macroeconomic indicators.

**Savings and Investment:** Savings and investment are the two important factors which play a significant role in uplifting the economy. Unfortunately in Pakistan savings and investments have always remained low as shown by the table 5.

The reason behind low investment rates is lack of sufficient domestic resource mobilization in the country and surmounting fiscal deficit. The national and domestic savings has always remained low in the country as shown in table 5. It can be seen that during the 70s the investment cannot be matched by the national savings and hence to finance it the dependence on external resource inflow increased. One of the reasons can be political instability and the separation of East Pakistan during early 70s but the most important factor was the nature of investment. During that time period most of the investment was done in housing, transport and agriculture sector (Bakai, 1979).National savings was 7.88% of GNP in the late 70s and it increased to only 11.38% of GNP in late 80s, which is still very low. On average the national savings is at maximum in 2005 at 17.82% of GNP but it still did not match with the standard of 20% of GNP in comparable economies. It has decreased again and it is 13.44% of GNP in 2010.



The public savings as a percentage of GNP have always been very low, on average only 1-2% of the GNP. The net external resource inflow was 4.91% in 1976-80, it increased to 5.06% of GNP in 1991-95 and has stayed around 5 to 3% of GNP with the exception of 2001-05, when it was -0.98% of GNP. The reason is that for the years 2002, 2003 and 2004 the net external resource inflow is negative, showing that resource outflow is more than the inflow. Interestingly, these are the years for which national savings is at its maximum i.e. average of 18% of GNP. The external resource inflow is used to fill the gap between domestic savings and the investment. For year 2005, the domestic savings almost matches the investment. But for year 2010, the gap between investment and savings increases once again and so does the external resource inflow as show in the table 5. Two of the possible reasons, that have an effect on the savings rate, can be low real interest rate and lack or inefficiency of financial institutions. Some of the past studies show the evidence of both (Zaidi, 1999).

**Balance of Payment:** The balance of payment situation in Pakistan has not been very strong either.

Brief overview of the balance of payment since 1950 is given in the table 6. In 1950 the trade deficit was \$113.9 million and current deficit was \$98 million. In 1955 the trade account is surplus of \$53.7 million and current account deficit decreased to \$20 million. After that the trade and the current account deficits increased until 1970. By 1975 the trade deficit had increased to \$1057.4 million and current account deficit to \$1397 million. This situation worsened in 1980, when the trade deficit and current account deficit stood at \$2345.1 million and \$3036 million respectively.

In 1990 there is minor decrease in two deficits but in 1995 they increased once again. Similarly in 2002 the deficit is less than 1995 but increased in 2005 and increased further in 2010, when trade deficit is \$15163 million and current account deficit is \$3946 million. The persistence of deficit in Pakistan can be attributed largely to the foreign trade pattern of the country.

**Human Development:** The population of Pakistan was 33.74 million in 1951<sup>iv</sup> and it has increased to almost five-folds to 184.35 million in 2013. Pakistan is the sixth most populous country of the world and currently the population growth rate is estimated to be 2.05%. The population growth rate of Pakistan increased to more

than 3% in the 70s and 80s. It started declining in the 90s and was 1.77% in 2005. On the other hand the crude birth rate and the crude death rate have also decreased since 1950s. In the table 7 demographic profile of Pakistan is given. It includes rural and urban population since 1950, labor force as percentage of population, crude birth rate, crude death rate and population growth rate of Pakistan. From the table it can be seen that the crude death rate of Pakistan has decreased from 15 per 1000 (1965) to 7.3 per 1000 (2011), whereas, the crude birth rate has decreased from 42 per 1000 (1965) to 27.5 per 1000 (2011). The CBR has decreased faster after the 1990s while the CDR has been decreasing slowly since the 1960s.

Table 6. Pakistan's Balance of Payments (Million Dollars).

Year	Trade Balance	Capital Account Balance	Current Account Balance
1950	-113.9	95	-98
1955	53.7	-3	-20
1960	-129.8	-25	-182
1965	-623.2	381	-633
1970	-383.7	399	-570
1975	-1057.4	1049	-1397
1980	-2345.1	818	-3036
1985	-3381.3	294	-4367
1990	-1922	1775	-4101
1995	-2224.9	2476	-4921
2000	-1691.8	-4179	-4206
2005	-6183.8	685	-1534
2010	-15163	178	-3946
2013	-11,264	180	-1,028

Source: Handbook of Statistics on Pakistan Economy, 2010.

The labor force of the country and the rural and urban population is also shown in the table 7. The percentage of civilian labor force has decreased since the 1960s and that of non-civilian has increased until 2000s.

Standard of living, healthy life and access to education are the three dimensions which Human Development Index measured. It consists of Education Index, Health Index and Income Index. The Education Index is calculated using the mean years if schooling index and expected years of schooling index. If a country has attained perfect education then the Education Index will be 1. Its value is 0.8 or greater for most of the developed nations. In Pakistan Education Index has increased from 0.211 (1980) to 0.386 (2011).

Regardless of the improvement the value is still very low and there is a need to invest more in education. Education is one of the major components in

determining the well being and quality of life. In 2011 the literacy rate was 58% in Pakistan, 69% for male and only 46% for female.<sup>v</sup>

Table 7. Pakistan's Demographic Profile.

Year	Total Population (Million)			Labor force (% of pop)			CBR	CDR	NRI
	Total	Rural (%)	Urban (%)	Total	Employed	Un-Emp.	/000 ppl	/000 ppl	CBR-CDR=
1960	45.92	-	-	-	-	-	-	-	-
1965	51.99	-	-	33.76	33.28	0.48	42.00	15.00	27.00
1970	59.38	-	-	30.34	29.88	0.60	-	-	-
1975	68.48	-	-	29.50	29.00	0.50	-	-	-
1981 <sup>vi</sup>	85.09	71.59	28.41	27.57	26.72	0.85	-	11.80	-
1985	95.47	-	-	29.4	28.51	0.90	43.30	11.50	31.50
1990	109.70	-	-	-	-	-	40.60	10.60	30.00
1995	124.49	76.27	23.73	27.46	25.98	1.48	37.40	9.50	27.90
2000	139.96	66.90	33.10	28.97	26.70	2.27	25.00	8.00	17.00
2005	153.96	65.96	34.04	-	-	-	27.00	8.40	18.60
2010	173.51	63.66	36.34	-	-	-	28.4	7.3	21.10
2013	184.35	62.10	37.90	-	-	-	26.80	7.0	19.80

Source: 50 Years of Pakistan in Statistics, 1998 & Pakistan Economic survey, 2011-13.

Health Index is calculated using life expectancy at birth data represented in the form of an index. The Health Index score has improved from 0.523 (1970) to 0.717 (2011). The life expectancy is 65.99 (2011). Although there is an improvement in the index but it has been very slow because of the external factors which affect the opportunities of healthy life. Pollution and environmental hazards remain one of the major factors. For example, the massive floods in 2010 caused a significant decrease in the health and nutrition expenditures, from Rs. 79 billion (2010) to Rs. 42 billion (2011). Total health and nutrition expenditures for the year 2013 are estimated to be Rs. 79.46 billion.<sup>vii</sup>

Income Index represents GNI per capita (PPP) in the form of an index (<http://hdr.undp.org/en/data/indicators/>). It measures the living standard. The Income Index has improved from 0.366 in 1980 to 0.464 in 2011. It does not account for the inequality in income. If the inequality is considered then for year 2011 there is 11.1% loss in the value of this index.

The Human Development Index of Pakistan is shown in table 8. Pakistan's HDI in 2011 was 0.504 and the ranking as 145 out of 187 countries. It has increased from 0.359 in 1980. It shows on average 1.1% annual increase.<sup>viii</sup> Although the GDP growth rate and economic stability are very important but the quality of life is the most important indicator of progress. The HDI is a more comprehensive measure of well being than GDP. It takes

into account three important dimensions of human development; healthy life, being educated and standard of living. In 2011 HDI was adjusted for inequality as well. For Pakistan the inequality-adjusted HDI is 0.346 (Human Development Report, 2011). It shows a loss of 31.4% in HDI score. It shows that if inequality is considered the situation becomes even more precarious as majority of the population is deprived of basic human needs such as access to health facilities and education.

**Infrastructure Development:** Infrastructure is one of the fundamental requirements for the smooth functioning of the economy. Transport infrastructure is required to move good from one place to another, within and across countries. Electricity is required in homes and industries. Hospitals and schools are required to provide people with access to knowledge and better health services. Similarly, effective sanitation and water is necessary for the betterment of health and living standards in other words infrastructure facilitates the working of all sectors of an economy (The Pakistan Infrastructure Report, 2011).

The availability of communication facilities per thousand people is shown in figure 2. In the 2000s there has been an increase in the mobile phone and internet services. In 2010, as seen in the figure 2, mobile phone subscribers increased tremendously. There was also substantial increase in the internet users but the telephone lines have decreased.

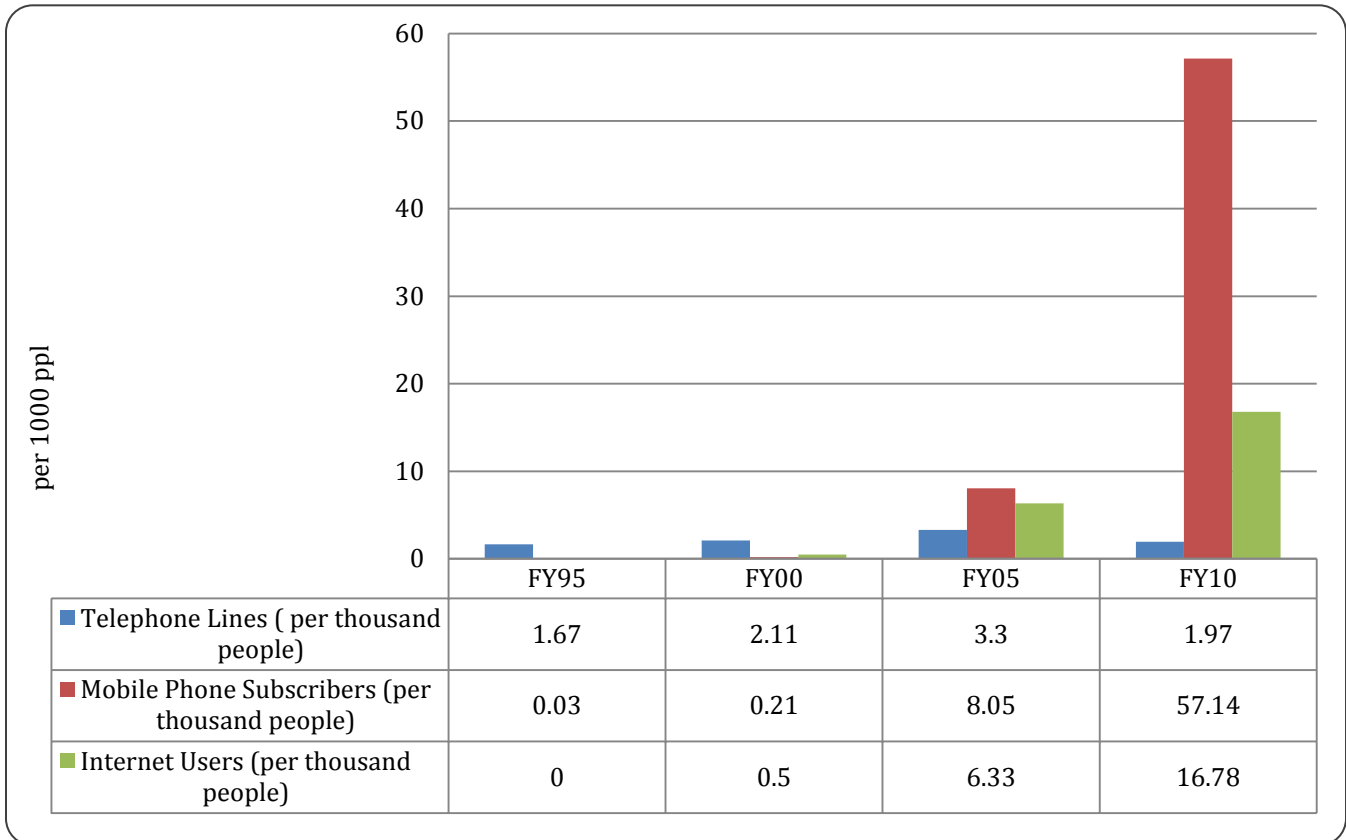


Figure 2. Telephone Lines, Mobile Phone Subscribers & Internet User (per 1000 ppl).

Source: 50 Years of Pakistan in Statistics, 1997-98 & Pakistan Economic Survey, 2010-11.

The total number of health establishments and educational institutions in Pakistan is given in the table 8. The health expenditure has only increased from 0.05% of GDP in 1950 to 0.54% of GDP in 2010 (Handbook of Statistics on Pakistan’s Economy, 2010). It shows that the availability of health and education facilities in the country is very low. Health facilities fall under one of the most important determinants of development for Pakistan as it is still in the first stage of development (Jan, et al., 2012).

Insufficient energy supply is another hurdle in the development of the economy. It adversely affects the industrial sector and the effect of energy consumption and economic growth is well established in the literature, furthermore, it has been found that electricity consumption leads to economic growth, although the economic growth caused total energy consumption (Aqeel & Butt, 2001).

The five year average growth rates of electricity generation capacity and total generation are given in table 9. Even after taking 5-year averages the growth rates do not show much improvement. In the 50s the

electricity generation capacity grew at 14% on average and the total electricity produced increased by 28.82%.

Table 8. Human Development.

Year	Education Index	Health Index	Income Index	H.D.I.
1970	-	0.523	-	-
1980	0.211	0.597	0.366	0.359
1985	0.231	0.621	0.395	0.384
1990	0.241	0.642	0.411	0.399
1995	0.266	0.663	0.421	0.42
2000	0.288	0.68	0.423	0.436
2005	0.358	0.695	0.445	0.48
2006	0.358	0.698	0.45	0.483
2007	0.374	0.702	0.455	0.493
2008	0.378	0.705	0.455	0.495
2009	0.383	0.709	0.458	0.499
2010	0.386	0.713	0.462	0.503
2011	0.386	0.717	0.464	0.504

Source: <http://hdr.undp.org>.

The electricity generation capacity growth rate decreased in the late 50s and further decreased in the 60s, whereas the total electricity generation growth rate decreased in late 50s but increased again in the early 60s. After 1970 the growth rates of both electricity

generation capacity and total electricity generated have been very low. In the late 2000s the electricity generation capacity and total generation have decreased and the average growth rates are only 3.09% and 2.75% (2010).

Table 9. Educational institutes, Health Establishments, Transport and Electricity Generation Growth Rates (Average %).

Year	Educational Inst.	Health Estab.	Roads (total)	Railways (Route)	Air Traffic (Flown)	Generation Capacity	Total Generation
1950	12136	1218	25303	8506	257		
1955	16625	1515	30735	8533	2721	14.59	28.82
1960	21210	1921	30854	8524	8458	25.17	13.07
1965	37330	2628	35008	8534	18905	13.04	24.43
1970	47396	2954	31673	8515	28646	15.08	14.36
1975	60105	4718	38632	8811	28183	6.46	7.49
1980	66573	5931	95660	8823	67456	10.8	9.33
1985	85447	7926	118471	8775	47562	9.04	9.79
1990	135455	10398	162345	8775	62330	6.93	9.99
1995	163375	10824	207645	8775	72339	8.15	6.77
2000	193364	11487	248340	7791	76212	6.31	3.66
2005	207306	12637	258214	7791	80699	2.19	6.7
2010	231692	12948	260760	7791	81588	3.09	2.75
2011	231052	12985	259463	7791	84898	-	-

Source: 50 Years of Pakistan in Statistics, 1997-98, Pakistan Economic Survey, 2011-12 and Handbook of Statistics on Pakistan Economy, 2010.

Transport facilities are just as important for the economic growth and human development. It facilitates the sustainable economic growth (Phang, 2003). There are many reasons for this, for example, the transportation infrastructure can be viewed as a direct input in the production process and sometimes as an unpaid factor of production, it can make other existing inputs more productive, for instant, well developed roads network can reduce the transportation cost by facilitating the transport of good to the markets in less time. It can also affect economic growth by influencing the aggregate demand and realizing the goal of providing people with access to education and health facilities. In addition to all this it can also attract resources from other region thus proving that transportation infrastructure is crucial for economic development (Pradhan & Bagchi, 2012).

The availability of roads, railways and air traffic transport facilities in Pakistan are also shown in table 9. The railways (route) has decreased since 1980s, whereas, the roads (lengths) and air traffic (flown 000)

have increased since 1950s. The quality of these facilities cannot be determined from this data. It is also important that the roads networks and railway networks are well designed to make it more productive.

**Environment:** One of the important dimensions of sustainable development is the environmental sustainability. The health concerns arise if there is inadequate pollution control. Similarly, availability of natural resources is important for the economic growth. It is important to preserve these resources and manage them to avoid costly shortages e.g. if surface water management is improved then water shortage can be mitigated. As the country is facing water scarcity, which is affecting agriculture sector as well as households' consumption, the achievement of sustainable development will be a challenge (Compendium of Environment, 2010). There is a need to manage the existing water sources in a way that will ensure sustainability.

Pakistan is among the countries with lowest forests area (ranking 113 among 140 countries) (Compendium of

Environment, 2010). The forest area is only 2.19% of the total land area (2010) as shown in table 10. Another environmental concern i.e. population density has increased almost four folds to 225.19 persons per sq. kilometer in 2010 from 54 persons per sq. kilometer in 1960. CO2 emission has also been increasing and was 0.86 in 2005. Natural resources rents as percentage of

Table 10. Pakistan's Environment (Selective Variables).

GDP are also given in the table 10. In 1970 it was 0.80% of GDP, it increased in 70s and early 80s but decreased after that and was 3.37% of GDP in 1985. It decreased to 2.49% of GDP in 1995 after which it increased and was 7.85% of GDP in 2005 but has decreased since then, 3.92% (2005). Infrastructure development can improve the management of environmental resources.

Year	Forest Area	Population. Density	CO2 Emission	Net Resources Rent (% GDP)
1960		54	0.31	-
1965		67.45	0.38	-
1970		77.03	0.41	0.80
1975		88.84	0.34	2.89
1980		104.42	0.40	3.93
1985		123.85	0.49	3.37
1990	3.28	145.09	0.61	3.56
1995		165.20	0.66	2.49
2000	2.74	187.48	0.74	4.45
2005	2.47	205.80	0.86	7.85
2010	2.19	225.19	-	3.92
2011	2.13		-	

Source: World Development Indicators and Asian Development Bank, Database

Variables: Forest Area is as percentage of total land area, CO2 Emission is metric ton per capita emission.

**CONCLUSION**

The economic growth and development experience of Pakistan since 1950s is analyzed and based on this analysis we can deduce that Pakistan has failed to achieve macroeconomic stability and prosperity, especially in regard of building physical and human capital. The economy has shifted from agricultural to services sector economy with 57.7% share in the GDP. The agricultural growth rate has remained low, only around 3% on average in 2000s. This indicates that there is a need for agricultural reforms so that the country can tap into its potential. Another reason to focus on this sector is that most of Pakistan's exports include agricultural commodities and it is seen that the trade deficit is one of the main contributor to overall budget deficit. The terms of trade of Pakistan are deteriorating. Another constraint on agriculture growth rate is the availability of water resources. There is a need for surface water management infrastructure to avoid shortages. Industrial growth has also been slow since 1970s. It is only around 5% on average in recent years. There is insufficient energy supply and low investment which has

been a hindrance in achieving high growth rates. Low savings rate, unmanageable budget deficit and lack of domestic resource mobilization are among few of the difficulties the country is facing. Due to this Pakistan has failed to sustain economic growth. As shown in the table 3 the GDP growth rate has structural breaks with periods of high growth rate of 6% or more and low growth of rate 2% or less. Same trend can be seen in the growth rate of GDP per Capita. The literature review revealed that among the variables which sustain economic growth, domestic savings, export growth and degree of equality of income distribution are also influential.<sup>ix</sup> Considering this we can see from above discussion that the persisting low domestic savings, increasing trade deficit and inequality of income distribution has contributed to the unsustainability of economic growth in the country. In addition to this the human development has also been unsatisfactory. The increasing population and the lack of proper resource management have resulted in unaffordable increase in energy consumption and degradation of environment. The insufficiency of financial resources has caused low investment in human capital in

the form of education and health. The HDI is only 0.504, showing that the living standards are low in Pakistan. There is insufficiency of sanitation system and water supply system in the country. In addition, the decreasing forest area and increasing CO2 emission and population density also pose serious environmental issues.

The literature reveals that the most important determinants of a country's prosperity are physical and human capital, trade openness, macroeconomic stability, technological progress, institutions and geography (Chaniet *al.*, 2011). To achieve sustainable development Pakistan has to improve both economic and social infrastructure so that some of the major issues facing by the country can be tackled including human capital in the form of health and education, insufficient energy supply, low agriculture growth rate, deteriorating terms of trade, budget deficit and environmental degradation e.g. deforestation, pollution and water scarcity etc. The areas which have growth potential include agriculture and human resources. Resources should be utilized in a way to achieve efficiency in potential areas of the economy.

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<sup>i</sup> Some variables may be of different time duration depending on the availability of the data.

<sup>ii</sup> The values are average of the time period 1970-78.

<sup>iii</sup> Pakistan Economic Survey, 2012-13.

<sup>iv</sup> Handbook of Statistics on Pakistan Economy, 2010.

<sup>v</sup> Pakistan Economic Survey, 2011-12.

<sup>vi</sup> Census Year.

<sup>vii</sup> Pakistan Economic Survey, 2011-12 & 2012-13.

<sup>viii</sup> Recently the number of countries included as well as underlying methodology has changed, therefore, it might be misleading to compare the values with previously published reports (Human Development Report, 2011).

<sup>ix</sup> For details see literature review.