PUBLIC SECTOR FINANCIAL MANAGEMENT AND OUTPUT GROWTH: A CASE STUDY OF PAKISTAN

SUBMITTED BY

Saima Ashraf

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SUPERVISED BY

Dr. Ahsan-ul- Haq Satti

Department of Economics and Finance

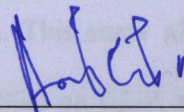## PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMICS, ISLAMABAD
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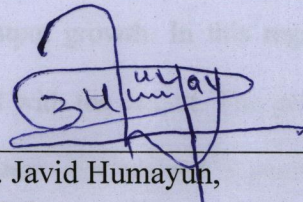
Supervisor:

Dr. Ahsan ul Haq
Assistant Professor,
PIDE,
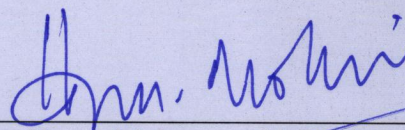Islamabad.

Internal Examiner:

Dr. Mahmood Khalid
Senior Research Economics,
PIDE,
Islamabad.

External Examiner:

Dr. Javid Humayun,
Chief,
Ministry of Planning, Development
& Reforms, Planning Commission
Islamabad.

Head, Department of Economics and Finance:

Dr. Hasan Muhammad Mohsin
PIDE,
Islamabad.

ABSTRACT

Financial Management in the Public sector is an essential part of the development process of the country. Public sector financial management (PFM) encompasses the collection and utilization of revenue. Financial Management Reforms are developments and changes over time in the field of finance. In this context, the objective of this study is to explore the impact of public financial management on output growth in case of Pakistan. This study also investigates the effect of public sector financial reforms (implemented in 1990s) on GDP, which is the proxy of output growth. Tax reforms included in this study to show a structurally different tax pre and post. The time series data covering the period from 1977 to 2015 has been taken in this study. Econometric methodology includes Unit root test, Causality test, Two Stage Least squares (2SLS) and Generalized method of moments (GMM). There exists endogeneity in our model. Therefore, we used Two Stage Least squares (2SLS) and Generalized method of moments (GMM). There is existence of the reverse causation between the variables which shows that the change in domestic and external debt show bilateral causality with output growth. The results of 2SLS and GMM show that PFM put a promising impact on the output growth. In this regard, domestic debt positively and external debt is negatively associated with the output. The government spending on social services, community services and economic services put a positive impact on the economy. On the other hand, government expenditure on administration, defense and transfer of payment are resulting in decreasing output. There is a positive relationship between financial reforms and economic performance.

DECLARATION

I, Saima Ashraf d/o Muhammad Ashraf, declare solemnly that this thesis has been authored by me for the fulfillment of requirement of M.Phil. degree from PIDE. This dissertation is the result of my own effort and use of resources quoted in the thesis explicitly. Any item copied from the internet or any other written source used has been quoted with reference to the source of citation.

Saima Ashraf d/o Muhammad Ashraf

ACKNOWLEDEMENT

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LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
BOP	Balance of payment
EU	European Union
GDP	Gross Domestic Product
GTEAD	Government total expenditure on administration
GTEES	Government total expenditure on economics services
GTESC	Government total expenditure on social community services
GTTRA	Government expenditure on transfer
IMF	International Monetary fund
IT	Information Technology
LDC	less developed country
OECD	Organization for Economic Cooperation and Development
NPFM	New Public Financial Management
PFM	public sector financial management
PIFRA	Project to Improve Financial Reporting and Auditing
PRP	Poverty Reduction Program
PRSP	Poverty Reduction Strategy Paper
SAPs	Structural Adjustment programs
UN	United Nations
WB	World Bank

Chapter 1

INTRODUCTION

The effective management of the government collection and expenditure of fund is known as Public Sector Financial management. It is the system for generating and controlling public financial resources for effective and efficient public service delivery. Public sector financial management (PFM) underlines all government financial activities. It encompasses the mobilization of revenue; the allocation of these funds to various activities; expenditure; and accounting for funds that has been spent. It involves planning and budgeting, accounting and reporting, internal controls, audit and external oversight. The flows of the financial resources depend upon the structures, process and administration of the government itself. (Odiora and Alenoghena, 2014) discussed that the management of the inflows and outflows of funds from the government treasury has a strong association with economic performance. Growth of the economy moves positively with better utilization and management of the public funds and expenses.

The government financial management is an important topic to understand. It has a strong historical background. Public sector financial management means the process of the transition to a natural state to an open-access society (Allen, 2009). The government financial management should be given due importance. It is needed to understand the system of various functions, rules and regulations that govern the management of public resources. These functions are ultimately intended to have an impact on the growth (Simson et al, 2011).

The prime objective of the Public Sector Financial Management is that all the public resources must be utilized as efficiently as possible. There will be minimum wastages of public funds at government level. Effective PFM systems maximize financial efficiency. The efficient uses of financial resources are central to creating a relationship of mutual trust between the government administration and citizen. This atmosphere of trust is at the core of the development process. In other words, it is a system which is used for promoting the availability of benefits to the greatest number of citizens; supports good governance. With the increase in populations, resources become scarcer or as economies grow more complex, the importance of PFM rises. It is helpful in poverty reduction and useful to achieve sustainable economic growth.

In the last few decades, the issue of Public sector financial management got much more popularity. Many developing countries have started a strategy to improve its budgeting system; accounting and financial statistic or treasury. There are 50 different donors that are providing Public Financial Management (PFM) support at worldwide level. (Allen, 2009)

There is an increasing emphasis on implementation of effective public financial management around the globe. Both developed and as well as developing countries are trying to get an impressive achievement in strengthening public financial management and governance. Every government continues to struggle with the increasing complexities of public financial management and the pace of change. Political instability, staff shortages, training and retention, poor reward system and lack of strong leadership make the system of public financial system more complex. It is really a challenging situation for the emerging economies. The basic objective behind the debate of public sector financial management is to free the country from the status of the less developed country (LDC) by 2020. The strategy of the government identified the direction of development and poverty reduction. (ACCA, 2010)

Public Sector Financial Management (PFM) in Pakistan has got recognition over the years. It has achieved some key milestones in this regard. The most significant achievement is the development of centralized and advanced financial reporting system with the support of the World Bank. Institute of Chartered Accountants of Pakistan is helping public finance managers with the collaboration of Governance Global Practice. These actions enable the government to improve financial reporting and auditing system in Pakistan.

Infective Public Financial Management systems need to be changed through implementation of certain reforms. Foreign assistance may contribute funds. Donors can help in ideas and technical skills. International institutions like IMF and World Bank, etc. can develop strategies to support reforms. However, reform itself is a strategy of the government to improve its financial management. In this regard, it is necessary to cut government costs and wastages and implement credible macro-economic policies. Government should empower the key institution with appropriate operational, legal and independent authority like Auditor General, Parliamentary committees, etc. Reforms also mean transparency and openness in Public Financial Management in governance generally. It will help to maximize the efficient use of limited public resources. It will create the highest level of transparency and accountability in finance at government level. Moreover, it will help to generate more and better services for the citizens of the country.

Government of Pakistan has designed a strategy to improve its Public Financial Management through certain reforms. Government takes appropriate steps in the domain of provincial planning and budgeting; reporting, budget execution, accountability and transparency, budget control and resource mobilization etc.

In the 1990s, the government of Pakistan introduced a new Chart of Accounts. The government took this step in order to modernize its accounting and auditing function. This new system is a computerized accounting system. It establishes an independent audit function, and improving professional capacity. In the 1997, following a World Bank diagnostic study, the Project to Improve Financial Reporting and Auditing (PIFRA) became effective. The Reforms included computerization and gradual migration to accrual accounting and modern accounting guidelines etc.

A new economic policy known as Poverty Reduction Program (PRP) was designed in 2001. This policy was implemented to facilitate the New Public Management (NPM) influenced transformation. Moreover, public reforms were operationalized under this new economic policy. Strengthen the market and public sector simultaneously was the main objective of these reforms. This strategy of new reforms was based on the World Bank's (WB) experience of developing countries. Under this program, actions were taken to train public servants, improve their salaries, and enhanced the use of information technology (IT) (Iqbal, 2014).

In this regard, Dr. Ishrat Hussain (2015) former Governor of the State Bank of Pakistan has given some suggestions. He highlights the role of audit in the PFM cycle. He called for creation of a Supreme Audit Institution. The Department of the Auditor general solely performs public accountability and fiscal transparency in the government's operations. It is a supreme audit institution of Pakistan. This institution is independent and autonomous. Moreover, it has professional, competent staff.

Recent reports and indicators confirm that Public sector financial management in Pakistan is still considered as cumbersome, corrupt and inefficient. Despite a long history of reforms, the situation in Pakistan has remained unchanged for its citizens and international development

community. It is needed to check the impact of these modern reforms on the economic performance.

1.1 Research Gap

An enormous amount of studies has examined the impact of public debt on economic growth rate. Different reviews of literature investigate that changes in Public expenditure bring positive or negative changes in economic growth. A lot of studies examine the impact of Public revenue on economic growth. However, in terms of the connection between PFM and economic growth, we have found limited empirical work. Therefore, it needs to explore the relationship between PFM and economic growth, especially in case of Pakistan

1.2 Objective

➢ Examine the association between public sector financial management and GDP, which is the proxy of the economic growth.

➢ Analysis magnitude of the relationship between the public sector financial management and output growth.

➢ Investigate the effect of different public sector financial reforms on GDP growth rate of Pakistan.

1.3 Significance of the Study

Without a strong public sector, life in the world would be less just, less free, more unequal, and more insecure. It is the responsibility of government to protect the individual rights of its citizens. These functions of the state enhance the economic growth. But, the government needs funds to run administrative unit. The government has to raise the financial resources in other to

meet the expenditures. There exists a relationship between the expenditure of the government and the economic growth. For development and growth of the economy, an effective management of public finance is fundamental. When population increases, then resources become scare and economics grow more complex. In this regards, public sector financial management has a vital role.

1.4 Study Plan

The study is organized into 6 chapters. Chapter 1 is the brief introduction, giving a general idea of the research. Chapter 2 is about literature review both theoretical and empirical. Chapter 3 explains Pakistan economy's overview. Chapter 4 gives the information about sources of data, description of the variables and econometric methodology. Chapter 5 is the estimation of model and interpretation of results. Chapter 6 includes conclusions and policy recommendations.

Chapter 2

LITERATURE REVIEW

The literature review aims to synthesize the historical background of the public sector financial management, and the theoretical work based on PFM. It is finding from assessment of PFM reform programs, and to identify knowledge gaps. The study of public financial management (PFM) is essential to improving the practice of public management and to our understanding of the politics and organization of public institutions. The literature of public financial management closely scrutinizes developing trends and standards in various areas. Public Financial Management (PFM) is concerned with aspects of resource mobilization (Tax and non-tax revenue) and expenditure management in the public sector. In this way, section 2.1 represents the background of the interference of the government in public sector and section 2.2 tells the history of the development of PFM concept in economy. Section 2.4 represent public debt and GDP, Section 2.5 shows impact of revenue on GDP, Section 2.6 shows effect of public expenditure on GDP, Section 2.7 deals with empirical work on PFM reforms and section 2.8 explains PFM reforms in Pakistan. The literature analysis comprises of various academic articles and papers, manuals, publications, handbooks and different websites, etc.

2.1 The Government as Prime Mover Phase

When the societies tried to organize them, the concept of government came to light. The role of the Government was entrepreneurial from the period of 1940 to 1979. The classical economists like W. Arthur Lewis, Rosenstein Rodan, David Ricardo, Thomas Malthus, Nurkse, Singer, Prebish, Hirshman and Leibenstein observed that economic development as a growth process which needs efficient utilization of factors of productions. In 18th and 19th century, the functions

of the government were limited because of the philosophy of the Laissez-Fair. Consequently, the government's budgets were balanced. However, in 20th century when the economics problems sour-up to the government had to increase its intervention in economics affairs.

Pretorius and Pretorius (2009) noted that OECD countries and some developing countries started to analysis the management of their public sector during the seventies and eighties. This led to the introduction of the development of the New Public Management (NPM) model. It emphasizes managerial accountability. It also accompanied by the introduction of financial management measures. It often referred to as New Public Financial Management (NPFM). Analyses in OECD countries show that the precise direction and speed of these PFM reforms were influenced by the political and social heritage of the country.

Great depression of 1930s increased the importance of the government intervention. Later on, the societies faced the problem of the proper utilization of financial resources at administration level. In 1980s, developed and developing countries faced a major macroeconomic problem. It is a combination of economic, political science, public administration and accounting crises at government level.

By the mid-nineties, there was a general realization that the transferability of ideas to under-developed countries using as a useful approach in arcading the problem of resource allocation. In this context, the methods of developed countries will help to solve the problem of the developing countries. Holmes, M. (1998) represented that the Public Expenditure Management (PEM) of the World Bank characterized another approach. This approach highlighted the need adopt due process approach. It is a budget process which involves all actors and practices.

In the early 1980s, many developing countries experienced macroeconomic instability. It was the implication of wrong economic policies which result in various macroeconomic difficulties.

These countries get the assistance from the International Monetary Fund (IMF) regarding designing a policy package that includes measures to restore macroeconomic stability and sustainable economic growth. Many developing countries implemented the Structural Adjustment programs (SAPs) of the IMF in order to get the economic growth and stability.

There are lots of theories and definition regarding the public sector financial management. Public finance does not merely deal with pubic revenue and public expenditure; it is also concerned with budgeting and auditing (Charles Bestable, public finance, 1903). It means that public finance deals with the distribution, classification, and underlying principles of public expenditure, the measure to raise pubic revenue and principles of taxation and the matter relating to public debts which include the principles of raising public debt.

Tanzi (1999) in Onuorah and Appah (2012) represented that good governance is an essential part in the context of economic and financial management. It comprises of macroeconomic stability and commitment to social and economic equity. It is the duty of the state to promote efficient institutions through structural reforms like trade liberalization and domestic deregulation. Poor governance is associated with ineffectiveness, ignorance, lack of effective institutions, the pursuit of economically inefficient ideologies, or misguided economic models. Poor governance is often linked to corruption and rent seeking.

Premchand (1999) in Onuorah and Appah (2012) observe that there is a link between public financial management and the community's aspirations with resources. Public Finance is a science where the statement of the economics activity is analyzed. It is follow to raise material financial resources in order to perform necessary functions of state (Karl Pelhem, Introduction to Public Finance, 1926). The research and investigation relating to nature and laws of public resources and public expenditure is called pubic finance (Armitage Smith, principal and methods

of taxation, 1935) HarlyLeist in his book "Public Finance (1939) defines public finance as "Public Finance deals with the provision, distribution and government of resources which are required to perform the governmental functions".

Mrs. Ursla Hicks has given a wider definition of public finance "Public finance comprises the analysis of those methods which are used to raise necessary government funds so that those wants could be met which are linked with the whole society". Findlay Sharaz in his book 'Science of Public Finance (1951)' writes "Public Finance deals with the principles underlying the public expenditure and raising the revenues. Being a positive science it analysis the facts as they are found".

2.2 Economics Growth and PFM

The literature; in particular, the empirical part, is scarce on the relationship between Public sector financial management and GDP growth. Various studies on this vary issue highlight the impact of external debt and domestic loan on economic growth in developing countries, while analyzes on the relationship between the Public sector financial management and economic growth, particularly in Pakistan, and are virtually absent. This analysis becomes even more relevant as developing countries are facing rising unemployment, external disequilibrium, price instability and the financial and economic crisis.

In this regard, (Odior and Alenoghena, 2014) have pointed out the existence of the significant relationship between government financial management and output growth in the case of Nigeria. This study used the technique of predictive causality test, a two-stage least squares (2SLS) an instrumental variables approach. Time series data were used for empirical analysis and the covering period is from 1970-2012. The authors conclude that the management of the inflows and outflows of financial funds from the government treasury has strong connotation

with economics prosperity. They show positive elastic with respect to economic performance and appropriate management of financial resources. Growth of the economy moves positively with better utilization and management of the public funds and expenses. However, they said that certain time period is required for the realization of the set goals. Social context and behavioral pattern are also important for the public sector financial management in case of Nigeria.

Growth means an increase in economics activates over the long period of time. Todaro (1995) citing Kuznets explains economic growth of the country as a long-term phenomenon of increase in size of supply increasingly diverse economic goods to its population. The advancement in technology and the institutional and ideological adjustment bring this increasing growth capacity. It is the responsibility of the government to achieve high employment, sustainable economic growth, poverty reduction, service delivery, price stability, long viability of the balance of payment. Strong Public Financial Management (PFM) systems are essential to any successful development process to get desired goal. Effective PFM systems are useful for achieving maximum financial efficiency, improving transparency and accountability and PFM is also helpful in attaining sustainable economic growth of the country.

Simson et al. (2011) presented a guide for the policy makers who seeking to deepen their knowledge on public financial management, especially in the case of less developing countries. It enables the governments of the underdeveloped countries to utilize scare financial resources in a best possible way. This study is divided into two parts. The first part describes the system of PFM and budget cycle. The second part is about the problem associated with the system of public sector financial management like political instability, untrained servants and limited financial resources, etc. This study also caters to the needs of the government officials who want to acquaint themselves with the introductory public sector financial management literature.

PFM is a technique or tool which a government used to achieve macroeconomic objectives. The macroeconomic objectives encompass economic growth, price stability, reduction in unemployment and balance of payment equilibrium. It is important to highlight the significance of government financial management. The relationship between Public sector financial management and economics growth has not been empirically analyzed in the case of the economy of Pakistan.

2.3 Government Policies and Economics Growth

In monetary policy, central bank uses interest rate to get macro objective and in fiscal policy, the state uses taxes and government spending to get its eco objective. Monetary policy is a tool or technique of the central bank of the state to achieve macroeconomic policy objective, such as price stability, full employment, and stable economic growth. According to prof. Shaw, "central bank is an institution which controls credit". While prof. Hawtry says "the main function of the central bank is that it should serve as a last resort for commercial banks".

 Another way around fiscal policy is related to government revenues and government expenditures. Prof. Lindhalm said "Fiscal policy is attached with the determination of time, type and procedure to be followed in making revenue and government expenditures". The relationship between economic growth and fiscal policy is complex and critically important for policymakers. Fiscal policy holds crucial implications for economic growth in both the short and long run.

Fetal (2013), in his paper investigates the effectiveness of monetary and fiscal policy on economic growth during the financial crises in developing and emerging countries. The study used the ordinary least squared procedure with robust standard errors and GMM estimator against annual data from 1970 through 2008 for the 66 developing and emerging countries. He

examines that monetary and fiscal policy contractions are related to an increasing output cost during the financial crises. Moreover, the finding of this paper suggests that the fiscal policy is most effective tool for handling with financial crises in developing and emerging countries. It means that monetary policy is less effective in developing countries.

K. Havi and Enu (2014) examined the relative significance of monetary policy and fiscal policy on economic growth with special case to Ghana. They investigated that which of these two policies is more influential in increasing economic growth of Ghana. The study period used in this research was from 1980 to 2012. The Ordinary Least Squares estimation technique was used in this study to get the results. According to this study, both monetary and fiscal policies are positively linked with economic growth. However, the finding of the empirical results shows that the monetary policy is more influential in promoting economic growth in Ghana as compared to the fiscal policy.

Ahmed (2011) in his study checks the part of fiscal policy as economic growth in Pakistan by taking annual time series data from 1982 to 2010. Fiscal deficit is used as a proxy of fiscal policy with government expenditure and revenue. Moreover, Ordinary Least Square procedure has used in this study. Non-tax revenues of federal and provisional government have a positive and significant impact on economic growth and it shown to empirical result. However, federal taxes have a meaningful negative impact on economic growth. On the contrary, development expenditures play vital role and non-development expenditures play insignificant role in enhancing economic growth.

Iqbal et al. (2013) presented a study which is an attempt to cross check impact of fiscal reorganization on economic growth. For empirical analysis, time series data has been taken that

covers period is from 1972-2010. The generalized method of moments (GMM) technique applied in this study to get the result. The finding of this paper shows that the decentralization of revenue increases economic growth. On the other hand, decentralization of expenditure puts a negative impact on economic growth. However, economic growth and composite decentralization are positively associated with each other due to the positive effect of revenue decentralization.

2.4 Public Debt and Economic Growth

Public debt comprises of external debt and domestic debt. The economists believe there exist a connection between public borrowing and economic growth of the country. A country with low saving rate has to borrow from international as well as domestic insinuations in order to meet its expenses. Economic, financial and global crises are also likely to contribute to increase government debt. The theoretical literature shows both negative and positive relationships between public debt and economic growth. Growth models augmented also tend to exhibit that certain public debt has negative relationship with economic growth, particularly in a neoclassical setting. The national debt is a burden for next generations, which creates a lot of problem for the nation in the long run. (Modigliani, 1961)

Schclarek and Ramon-Ballester (2005) explores link among the external borrowings and per capita GDP growth in twenty-four developed economies. Data averaged over the time span of seven five-years from 1970 to 2002. Methodologically, this study uses a dynamic system GMM panel estimate. The findings of this paper reveal that lower rate of external debt is associated with high growth rate. Checherita and Rother (210) investigated the average impact of government debt on per-capita GDP growth of twelve-euro area countries for the period 1970 to 2011. This study found a non-linear impact of debt on growth. It unveils a concave or inverted

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U-shape relationship between the public debt and the economic growth rate of twelve euro countries.

Mencinger et al. (2014) attempted to empirically explore the transmission mechanism regarding the short-term impact of public debt and growth in the 25 sovereign member states of the European Union. These countries of EU are divided into subgroups. The old group of countries is covering the period 1980–2010 and the new states are covering the period of the 1995–2010. This research employs a generalized theoretical economic growth model augment with a debt variable. In this paper, fixed effects (FE) panel regression and instrumental variable (IV) approach employs to avoid the problem of the heterogeneity and endogeneity which give inconsistent and biased estimates. This study finds non-linear and concave relationship between public debt ratios on the annual GDP per capita growth rate for both new and old members of the EU. This research may contribute to a better understanding of the problem of high public debt and its effect on economic activity in the countries of the EU.

Pakistan is a developing country and it is facing a lot of macroeconomics crises like increasing debt problem. The international figures reveal that Pakistan is one of the highly indebted countries. The absolute value of external debt was 9.93 billion dollars in 1980. It is interesting to note that the absolute value of external debt has been just 3.4 billion dollars in 1970. This figure of external debt doubled during the period from 1981 to 1990. In 2010, the value of external debt extended to 54.60 billion dollars. (Government of Pakistan, 2010 and World Bank report, 2007)

Akram (2011) presented his paper to examine the consequences of the impact of public debt on economic growth of Pakistan for the period 1972-2009. He applies Autoregressive Distributed Lag (ARDL) method for the sake of estimation. This paper finds that there exists negative

relationship between external debt and per capita GDP. The present study examine that the public foreign debt of Pakistan has an inverse and significant association with per capita in short as well as in the long run.

Ali and Mustafa analyzed the long run and short run impact of external debt on economic growth of Pakistan during the period from 1970-210 with the help of annual data which is taken from various sources. In this analysis, implication of long run estimation employed a cointegration analysis and rest of the short run analysis relied on an error correction method. The results of this paper show that there exists a negative relationship between external debt and economic growth. The debt is overhanging in Pakistan both in the short run and long run.

Ahmad et al. (2010) explores the effect of domestic debt on economic growth in Pakistan. Research reveals that there exist positive relationship between economic growth and domestic debt of Pakistan during the period of 1972 to 2009. Ordinary least square (OLS) method is employed in this paper to check the nature of the relationship between the variables under study. In other words, resources, generated from domestic borrowing used in those projects which were contributed to economic growth.

2.5 Government Revenue and Economic Growth

For the sustainable economic growth, taxation plays a significant role because taxation is a main source of revenue for the country. The state needed revenue to finance economic development policy. Tax cut increases the federal budget deficit, which means reducing government revenue and having the negative effect on growth. Marsden (1983) points out that any type of change in tax policy will affect the economic planning.

Ismail and Hamzah (2006) assessed the impact of fiscal decentralization of Indonesia. The result shows that the revenue indicator of fiscal decentralization is negative, and the expenditure indicator of fiscal decentralization is positively related to the economic growth for the period of 1992-2002.

Hakim and Bujang (2012) investigate the effect of the all components of taxes on the ratio of gross saving to GDP and foreign direct investment as a ratio to GDP, among the countries based on the different level of income. The period under study is from 1960 to 2009 and Unit root test, Breusch-Pagan-Godfrey test, Glejser test are applied and to detect it the multicollinearity problem in the ordinary least squares, Variance Inflation Factors method is used. This study found that the developed countries collect tax revenue of 27.60% of GDP and underdeveloped countries just collect 11.89%. The result of this study assessed that the tax revenue to GDP ratio is high in developed countries as compare with the poor or low income and middle countries.

Karras (1999) assessed the consequence of tax policies on economic growth with the help of data from 1960 to 1992 for the 11 countries of the OECD. The results of this paper indicate that the tax rates have exhibited significant persistent changes as compared to output growth rates. A higher tax rate reduces the level of output, but not a permanently effect on the output growth. Moreover, this paper supports the theoretical predictions of the neoclassical growth theory.

G. Gale and A. Samwick (2014) presented the article to show the effects of income tax changes on economic growth. This paper establishes a link between changes individual income tax with long-term economic growth. It investigates that the income tax cut increases the federal budget deficit. Tax cut increase economic growth because it improving the incentive to work save and

invest. On the other hand, the government will find it difficult to meet with its expenditure in case of budget deficit which arise due to reduction in taxes. The budget deficit will decrease national saving then investment which will negatively impact on economic growth.

Ferede and Dahlby (2012) examine the impact of tax rate of the Canadian provincial government on economic growth with the help of panel data during the period of 1977-2006. The empirical result of this paper shows that the higher corporate income tax rate associate with lower private investment and slower growth. Moreover, the empirical estimate suggests that a one percentage point reduce in the corporate income tax rate is associate to 0.1-0.2 percentage point rise in the transitional growth rate. The result of this paper also indicates that there is potentially large increase in growth and private investment when government switch from Retail sales tax to a sales tax that is harmonized with the federal value added tax.

Padda and Akram (2009) presented the impact of tax policies on economic growth for three South-Asian countries namely; Pakistan, India and Sri Lanka. Panel analysis is applied in this study for the period of 1973–2008. These countries have a different fiscal structure and definition of the variables. In order to avoid such spurious issue, the study conducts time series analysis for each country separately. The results of this study show that the tax policies of three Asian countries have just temporary impact on their economic growth. Moreover, a high tax rate may cause reduction in the level of output, but cannot have any permanent effects on the output growth rate. The tax rates in Pakistan, India and Sri Lanka are low as compared to developed countries. In other words, these countries depend on deficit financing.

2.6 Public Expenditure and Economic Growth

Public expenditure has a vital role as far as economic growth is concerned. Appropriate public expenditure can put an effective impact in boosting economic growth. With the help of good public expenditure policy, the production can increase even in the short run having limited recourses. There are a lot of empirical studies, based on time-series or cross-country data, have put a contribution of public expenditure to economic growth. Some studies discuss the relationship between aggregate public expenditure and economic growth; others pay heed to the association between certain components of public expenditure and economic growth.

A variety of empirical studies with the aim of estimating the impact of public expenditure on economic growth have yielded contradictory results. Some studies find that a rise in the share of public spending is linked with a decrease in economic growth (Landau, 1986) and (Scully, 1989); others conclude that economic growth is positively related to public spending (Ram, 1986); and there are certain studies, which examine that there exists insignificant relationship (Diamond, 1989).

Generally, Ordinary Least Square analysis is used to estimate the relation between government expenditure and economic growth in different studies. The conflicting result has found by applying cross section analysis to assess the relationship between government expenditure and economic growth. Aschauer (1989), Barro (1990-1), Folster and Henrekson (2001) prove a negative relationship of government expenditures in output growth by using cross-section analysis. On the other hand, Slemrod, Gale and Easterly (1995) and Agell, Ohlsson and Skogman Thoursie (2003) resulted in an insignificant partial correlation between the size of the government and economic growth. Slemrod, Gale and Easterly (1995) and Agell, Ohlsson and

Agell, Lindh and Ohlsson (1999) blamed the conflicting results on the inappropriate cross-section model to investigate the relation between government expenditure and economic growth.

Fajingbesi and Odusola (1999) investigate in the empirical analysis that the government capital expenditure has a significant positive impact on real out. On the other hand, the real recurrent expenditure has an insignificant effect on the growth. Ogiogio (1995) in this study indicated that there exists a long-term association between the government spending and economic growth.

Oyinlola and Akinnibosun (2013) examine the association between public expenditure and economic growth in Nigeria. The period of research is from 1970 to 2009. Gregory-Hansen structural breaks cointegration technique is used in his analysis. The result of this paper shows that the main objectives of the government expenditure are economic growth and development. Especially, the investment in infrastructure and human resources is essential for economic growth.

Musgrave and Rostow (1960) carried out research on the growth of public expenditure and the pattern of economic growth and development in societies. This research divided the societies in different categories. The rate of growth of public expenditure will be higher in early stage of economic development. This rate is high because it is the responsibility of any government to provide the basic infrastructural facilities and basic necessities of life to its citizen. Therefore, the expenditure of the sate increases due to start capital intensive projects. The second phase is the stage of rapid growth in which private saving increase and public investment fall proportionately. In the third stage, the demand for private goods increased in high income societies which will increase public investment.

Desmond et al. (2012) posted a study to check the effect of public expenditure on economic growth of Nigeria for the period 1970-2009. The OLS multiple regression technique used to analysis the causal relationship between the government spending and economic growth. Time-series data include in the model and gross domestic product used as a proxy for growth and various components of government expenditure. Empirical study revealed that there is a relationship between government spending and economic growth. However, some component of government expenditure puts the negative effects on growth; others exerted the positive effect.

Fan and Rao (2003) assessed that in various continents, the effect of several types of government spending on economic growth is different. Government spending on health and agriculture is significantly affecting the economic growth of Africa. Investments in agriculture and defense have the strongest impact on economic growth of the countries of Asia. However, any type of investment except health investment put a positive contribution to economic growth in Latin America.

In Pakistan, different studies have investigated the association between the government spending and economic growth. The main objective of various studies is to indicate the areas where the government spending should increase for attaining sustainable economic growth. Rahman and Salhuddin (2010) assessed an empirical analysis to show the relationship of economic growth and its determinants in the case of Pakistan with the help of modern time series analysis. In this paper, FMOLS, ARDL bounds-testing and ECM employ for the period from 1971 to 2006. The result indicates that inflation and financial instability harm the economy and stock market, human capital and FDI put a positive effect on the economic growth of the country.

Asghar et al. (2011) investigate the relationship between government spending on human capital and economic growth in case of Pakistan. The period of the study is 1974 to 2008. The paper examines the impact of government expenditure on economic and community services, law and order and subsides. They assessed that a positive relationship between government spending and economic growth, where subsidies appear to be negatively related to economic growth. This study advocates that the expenses on subsidies should reduce. On the other hand, spending on human capital should increase at government level in order to attain sustainable economic growth.

2.7 Public Sector Financial Reforms

Public sector financial management reforms are known internationally as new public financial management (NPFM). In the last few decades, many developing countries have started reforming projects likes budgeting, accounting, financial statistics or treasury. It is also the fact that many PFM experts have a narrow focus to a special issue of PFM (Allen, 2008).

Reforms of ineffective public financial management systems mean, take an appropriate step to maximize the efficient use of limited public resources. It is necessary to create the highest level of transparency and accountability in government finances. Financial reform is a system to generate more and better services for the citizens of the country to achieve a sustainable economic growth. (Commonwealth Secretariat, 2005)

Newberry (2002) has undertaken an analysis which suggests that the public sector financial management system of New Zealand fabricates the condition under which privatization enterprise might be accepted for pragmatic reasons. This paper identifies those features of the

financial management system which are used to rationalize the financial resources-eroding process.

For Effective Public Financial Management (PFM) systems, it is obligatory to maximize the efficient use of limited resources, create the appropriate and pragmatic transparency with efficient accountability in government finances and to ensure long-term economic success. Moreover, Political, historical, social and institutional are the factors which have influenced the direction and speed of NPM and NPFM reforms in OECD countries (Pretorius and Pretorius, 2009)

Renzio et al. (2011) represented a study to examine the impact of foreign donor assistance to the public financial management (PFM) reforms in the special case of the under-developed countries. Data of public expenditure and financial accountability from 100 countries shows very interesting results. PFM systems are effectively responding due to positively changing in economic circumstances rather than to donor efforts. Countries having a high growth rate are characterized with better quality of PFM systems as compared to the countries having a low growth rate. There is positive and significant association between donor PFM and quality of PFM systems. On average, countries that received more PFM-related technical assistance have better PFM systems. This study alsoadmits that these results suffer from a number of serious limitations and challenges like data quality remain an issue, lack of sufficient time series data and it may happen that the donors tend to provide more PFM-related assistance to those countries that have already achieved certain success in improving the quality of their PFM systems.

Bietenhader and Bergmann (2010) raise an issue of proper sequencing of PFM reforms in the paper. Moreover, this paper identifies the most common approaches for sequencing PFM reforms in the developing countries. Structured telephonic interviews with PFM experts, supported by the circulation of pre-interview questions are used as a methodology of the study. However, the experts are representatives of the donor community. The finding of this paper suggests some principles which the donor community should follow when implementing a PFM sequencing strategy.

2.8 Public Sector Financial Reform and Growth in Pakistan

This section of the paper discusses the financial sector reform process and economic growth with specific reference to Pakistan. However, it is essential to know the reason as to why the system reached to a point where the reforms necessary.

The overall growth performance of Pakistan was appropriate during the period of 1961 to 1989. Instead of certain reforms in 1990s, the statistical result shows that this period was furnished with macroeconomic instability and low economic growth. The economy of Pakistan got a good momentum of sustainable growth up to 2006 to 2007 after the period of 2000. Another decline period of economic growth was started from 2008 to 2011. Poor macroeconomic stability, high international oil price, energy crises, commodity price hikes and global financial meltdown were the factors behind such a decline in economic growth in Pakistan.

In the early 1990, the government of Pakistan pursued its agenda of deregulation of the economy; the government realized that public sectors, financial management reforms were needed to boost the economic growth. The government realized this fact that the availability of relevant financial management information is essential for the efficient use of public funds.

Pakistan government was needed to improve the financial reporting and auditing systems. The Department of the Auditor General Pakistan itself tried to improve the public sector accounting. The International Monetary Fund carried out a survey in government accounting. A project to improve financial reporting and auditing (PIFRA) was introduced in 1994. Asian Development Bank, IMF and DFID were the partner of the project. (ACCA, 2010)

In 1996, the government of Pakistan started macroeconomic and financial sector restructuring programs with the help of foreign agencies like the IMF and World Bank. An analytic study to assess the prevalent system was conducted from the period of 1993-1996 with the support and help of the World Bank. In 1996, a project was introduced with the support of the World Bank to Improve Financial Reporting and Auditing (PIFRA). The auditing and accounting function were combined with the office of the Auditor General of Pakistan prior to the year 2001. Under a new economic policy named the Poverty Reduction Program (PRP) was operationalized in 2001.

Haque (1997) argues that the researcher and politician treated fiancé dimension of economic development as an afterthought issue, because it is considered as a more sophisticated matter as compare to the simple economies. The basic role of the financial sector is to mobilize the financial resources to increase the economic growth. It is also observed that the financial development is correlated with current and future economic growth of the country. This paper suggested that the financial system should be reformed in Pakistan, because government is not playing the role of the guardian of the system. In this way, there are lots of hurdles which hinder the government to play a proper role like political interference, corruption, substantial overstaffing and poor human capital, etc. Therefore, the public financial sector in Pakistan is not performing so many important financial functions which are essential for rapid economic growth.

Waheed (2009) addresses the key issues in the financial development and economic growth of the Pakistan. This paper concludes that so many distortions have removed and there is reduction in financial repression over a decade in Pakistan. He believes that financial reforms bring this positive change in the Pakistan economy. At the same time, a large segment of the population is still under served from the existing financial markets. In other words, the reforms helped to increase the credit availability of private sector.

Iqbal (2014) argued that the public sector of Pakistan is still considered cumbersome, corrupt and inefficient for its citizen despite an implantation of various reforms in the public sector. This study was conducted to investigate the reason behind little impact of repeated attempts at reforms. The finding of this paper suggested that it is corrupt practices nepotism, favoritism which create a lot of problems for the whole society.

Theoretical framework

There are lots of models and theories regarding the impact of government size on economic growth and it helps to understand the exact condition of the economic growth of the countries. Theories such as Stages of economic growth by W.W. Rostow and Richard Musgrave theory (1973) emphasis the importance of efficient utilization of scarce resources. Evidently these theories recommend that economic development is a product of prudent management of the limited public resources. However, for fostering economic growth, it is endogenous theory which gives a theoretical basis to the government.

Endogenous growth theory

Endogenous growth theory highlights this fact that it is endogenous factors or forces which influence the economic growth. It is the policies of the government, access to capital and human

resources, and the internal process which affects economic growth. Endogenous growth theory, popularized in the 1980s, holds that investment in the sector of human capital, education and innovation put promising effect on the economic growth of the country. This theory is also used to elaborate the economic advantages of the industrialized or developed countries versus developing or non-industrialized countries. Technological advancements are considering as an essential factor when explaining economic growth.

According to the Neo-classical, it is technological progress that is the key factor to describe the economic growth. In the endogenous growth model, internal factor of the economy is reponsible for affecting economic growth. This theory is based on this concept that source of growth of the independent variables in the growth model is tracked down, with a particular focus on knowledge.

There is a general perception that fiscal policies cannot bring about changes in long-run growth of output in a neoclassical growth model. The introduction of endogenous growth models that incorporates the government sector has led to the opposite conclusion that fiscal policies can affect the long-run growth rate of an economy (Barro and Sala-i-Martin, 1992).

To specify capital accumulation, human capital is added in the model to represent time, energy and money devoted to acquire knowledge by individuals. Obtaining knowledge requires effort and is therefore considered as an investment. As suggested by the assumptions of the model this must be rewarded. Investment in human capital leads to leads to more productive labor, which generates higher wages. Furthermore, skilled laborers may also generate other positive external effects. Therefore, an extra independent variable (H: human capital) is taken in the economy's production function:

$$Y= AF (K, L, H)$$

Furthermore, public infrastructure is a factor directly contributing to economic productivity. Therefore, the economic production function is extended by including this factor KG:

$$Y= AF (K, L, H, KG)$$

However, if the added variables are subject to decreasing returns, then this model is unable to clarify the difference in growth rates across economies. Therefore, countries continue to grow towards a steady state as stipulated in the Neo-classical growth theory. However, the assumption of positive externalities (Alfred Marshall, 1879-1890) is included in the model. This assumption claims that one particular investment may have beneficial effects on other factors, while having a negative effect on itself. In this view, growth can be driven infinitely through accumulation of the production factors considered in the model. However, this requires that the aggregate of the factors in the model are do not show decreasing returns to scale.

This implies that the government can elicit economic growth in the long run by influencing the factors in the model by i.e. investments in capital, research and development and education. However, the government may also influence economic growth negatively.

Endogenous growth theory gives governments a theoretical basis for actively fostering growth. Not surprisingly, many empirical studies have been carried out to test the predictions of endogenous growth theory. Better knowledge on the dynamic relationship between government expenditure and GDP is relevant for policy in two major respects (Arpaia and Turrini, 2008)

Chapter 3

PAKISTAN ECONOMY

Introduction

This chapter represents the overview of the Pakistan economy, especially during the period of 1977 to 2015. Various variables used in this analysis and this chapter deals with how different variables behaved during different periods. We have divided the Pakistan economy into five decades. The purpose behind distributing economy into a different era is that it reveals how differently variables such as GDP, external and internal debt, revenue and public expenditure etc. volatile during each of these periods. These chapters discuss various PFM reforms which have been implemented over the years and some are still on-going to improve PFM in Pakistan. However, this study checks the impact of PFM reforms of 1990s on economic growth. This chapter also discusses whether democratic or nondemocratic governments bring greater economic growth in Pakistan.

PAKISTAN ECONOMY OVERVIEW

Economic growth in Pakistan remained volatile. There are various factors like poor governance, energy shortfall, terrorism, corruption and law and order, etc. which hinder the economy from getting prosperity. Asghar et al. (2011) stated that growth performance was satisfactory during the period from 1961-89. However, the social sector and agriculture sector are highly volatile over the period of 1980 and onwards. Instead of certain financial reforms, the problem of macro-economic instability with low growth started in 1990s. The economy grew at a good pace during the first half of the past decade.

Pakistan being a developing economy ranked 26th in the world in terms of purchasing power parity and Pakistan ranked 41th largest economy in the world in term of nominal GDP. The population of Pakistan is above 190 million and Pakistan is the 6th largest nation in term of population. The geo-political situation of Pakistan has increased its importance. Pakistan has faced a lot of problems of security and economy since her inception in 1947. The 1950s were the initial years of the formation of Pakistan. The disintegration of the sub-continent created lot of troubles for the economy of the reign. Poor human and financial resource endowments proved real hurdles for the economy of the Pakistan. The government of Pakistan faced these problems throughout the decade. The period of 1960 was the period of prosperity. The reasons behind this prosperity were Green Revolution, industrial advancement, encouragement of private investment. Moreover, the physical capital stock growth rate was 13.1 percent per year.

Husain (2010) finds that after independence in 1947, Pakistan had the highest growth rate in South Asia. Pakistan grew faster than South Asia during the period of 1960 to 1980 with an average of 2 percent. World Bank (2002) Pakistan export of manufactures were more than Indonesia, Malaysia, Philippines, Thailand and Turkey combined in 1965.

The averaged economic growth was 5.82 percent during eleven-year government of Ayub Khan. At this time, the manufacturing growth was 8.51 percent and tax collection was less than 10 percent of GDP. Entrepreneurs and exporters got the benefit of the Export Bonus Vouchers Scheme in 1959. This scheme eased to access the foreign exchange for imports of industrial machinery and raw materials, which were used for the production of the products.

1970s nationalization and state control economy

The decade of the 1970s was not a favorable period for the economy of Pakistan. The reasons behind these conditions a were civil war, the nationalization of industries and banking sector, the

high price of petroleum and recession in world market. In order to introduce the foundation of socialist economic reforms, the nationalization process was promulgated and implemented in 1972. During this period, the government took over all key decision variables. The people of Pakistan observed an enormous redistribution of national assess from the private ownership to the state. There were 31 key industries, which were nationalized in 1972 with the objective that the national wealth was being concentrated in the few families. Life insurance companies were nationalized in late 1972, ghee units were takeover in 1973, and commercial banks and shipping nationalized in 1974. However, various factories were takeover in 1976. The drawback of this concentration of wealth was that the rich were getting richer and poor remain poor. It was the major setback to the economy which causing imputes uncertainty and decreased the confidence of the investors. They were reluctant to invest in the economy of Pakistan.

Husain (2009) concluded that the nationalization of institutions with high oil price, drought and withdrawal of external assistance put an adverse effect on the growth rate. It fell to 3.7 percent per annum from the 6 percent recorded in the 1960s.

1980s the era of privatization and stagnation

The state changed its policy of nationalization of institutions in 1980s. It was a period towards denationalization and the role of the public sector was to be reduced. This step boosted the confidence of the investors, which result in lost growth momentum was partly recovered in this period. Moreover, the foreign aid also boosted the economic growth rate. The influx of foreign exchange from Pakistanis working overseas and at the same period there were high crop yields. Therefore, the economy grew an average rate of 6 percent annually during the 1980 with 4 percent agriculture and 8 percent manufacturing sector. At the same time, the economy faced

structural problems which were not properly tackling by the policy makers. Fiscal imbalances also bring problems for economic management subsequently.

Afghan war fallout negative impact on the economy of Pakistan and there was expansion of the black market as well as the proliferation of portable weapons and violence. Despite the high economic growth rate, the disparities between the rich and poor widened. Moreover, the public spending on defense increased which created a lot of problems like fiscal deficit increased to 10 percent of the GDP in 1980s. Pakistan had to approach the International Monetary Fund (IMF) for financial assistance in 1988.

1990s the period of PFM reforms

During the period of 1990s Pakistan become the slowest growing country in South Asia with average trend GDP growth of 4.4 percent per year. There were lots of factors which put an impact on the economy of Pakistan like political instability, frequent changes in government and poor governance. However, there was deregulation of economic policies, liberalization, privatization and public sector financial reforms were introduced in 1991. These reforms and polices did not bring prosperity because the presence of weak governance. The economy faced financial crisis due to greater openness of the economy.

The rate of poverty decreased from 46 percent in the 1960s to 18 percent in the 1980s but, the unfavorable incidence of poverty, rose to 34 percent during the period of 1990s.The government of the USA was with-drawl its aid after the end of the Afghanistan war. The United States imposed sanctions on Pakistan for its nuclear tests in 1998. The government of Pakistan was freezing the foreign accounts of the residences of Pakistan and nonresidents. This act of the stat eroded the confidence of the local and foreign investors which put negative impact on the economy of Pakistan.

Akram et al (2011) have found that decade of 1990s is an example of resources drain due to debt obligation and expenditures on debt servicing. The economy of the Pakistan faced a severe fiscal deficit during the period of the 1990s which, resulted in rising the poverty and hunger.

2000s the phase of economic liberalization

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.

The military government under General Pervez Musharraf took over the control of government in 1999. The military government actively pursued and aggressive and transparent privatization policy. This step encouraged foreign investment flows in Pakistan. Therefore, Foreign Portfolio Investors enter and exit the market without any type of restrictions. (Husain, 2004)

Pakistan participated in the fight against terrorism after the event of September 11, 2001. The alliance of with coalition helped the economy of Pakistan through foreign aid and so many other ways. Lifting of sanctions brought positive changes in the economy of the state. Moreover, some external debts were written off. All these measures easing BOP position and the growth rate of the economy were increasing. The export of the country increased due to access to the markets of the USA and EU countries.

The investment ratio increased from 15.5 percent of GDP in 2001 to 20 percent in 2006. The increased in total-factor productivity (TFP) was responsible for this growth acceleration. The capital utilization increased which translated into higher productivity per unit of capital. It is reflected in the higher-than-average contribution of total-factor productivity.

It is conceded that the momentum of growth slowed down from the year 2007 to 2008. Public expenditures were far more than the revenue collection. Therefore, the government borrowed from the State Bank of Pakistan to a record 359 billion rupees during the early month of the

fiscal year compared to 26 billion rupees in the last fiscal year. The supply of money increased to 17.6 percent due to excessive government borrowing. In this situation, the effort of the Central Bank to tighten monetary policy was also ineffective. Electricity and gas load shedding put adverse impact on manufacturing and export sectors of the economy. Large Scale Manufacturing (LSM) growth slowed down to 4.2 percent in the first half of the fiscal year. Various crops had not performed well due to different factors like 20 percent decline in DAP off take and anticipated reduction in availability of irrigation water. Therefore, the productions of crops were lower than the actual production of the last year.

Inflationary pressures hurting the poor and the fixed income group badly. An increased in the import of oil was created pressures on Rupee-dollar exchange rates. The trade imbalance and fiscal deficit were also responsible for putting an adverse impact on the performance of the economy during the period of 2007 to 2008.

The real GDP of Pakistan grew at 4.1 percent in 2010. However, the economy grew at 1.2 growth rate in 2009 which clearly shows progress in growth rate. The growth rate was slowed down before 2010 due to the impact of various contributing factors like security issues, global economic crises, severe floods and poor governance. The fiscal deficit of the economy rose to 4.5 percent. However, this fiscal deficit was 4.2 percent in 2009. This reveals that the debt increasing more than the expected revenue. Public expenditure increased to 10.3, which are far more than the public expenditure of the previous year. Tax exemptions and power sector subsidies raised the public expenditures. (ECO Annual Economic Report, 2010)

The economy of Pakistan remains in the clutches of the low-income, low-growth trap, with growth averaging about 3.5 percent per year during the phase of 2008 to 2013. The year of 2008

is considered as one of the tough period in the economic history of the country. There were external and internal shocks.

The period from 2010 to 2014

The regime which takes charge in 2008 failed to cope with the economic challenges. Therefore, the economy of the state lurched from one crisis to another due to bad macroeconomic policies and weak governance. The period of 2013 shows a rapidly evolving political scenario. It has been observed that 2013 was different from 2008 for the economy of Pakistan (Khan, 2013).

Oil prices are continually decreasing at international level and steady implementation of its reform program; economy of Pakistan showed resilience in 2014. There was political uncertainty in July to December 2014 and floods affected the agriculture crops of Punjab in the same year. Despite all these problems, macroeconomic indicators of Pakistan have improved. The projected GDP growth is now at 4.3 to 4.6 percent due to favorable slump in international oil price and implementation of the IMF reform program. Instead of energy crises, the economic growth of Pakistan is showing the signs of sustained recovery. Having some gain, low human development indicators of Pakistan undermine its labor force productivity and economic growth. The education sector is still backward with low public spending on education which was just 2.1 percent of GDP in 2013. There is no reasonable improvement in nutritional outcomes over the last two decades. However, health outcomes have improved with a slow pace. Statistics shows that Pakistan got substantial progress in eradicating poverty. Eradication of poverty has been observed both in urban and rural areas (World Bank overview 2015).

Sustainable economic development is the basic objective of the government of Pakistan. To achieve sustainable economic growth, Pakistan is facing significant economic, governance and security challenges. The basic obstacle in the way of economic development is the persistence of

conflict in the border areas and as well as security challenges throughout the country. It is needed to improve governance, justice and possible security measures for unleash Pakistan growth potential.

Figure 1: Real GDP Growth (1991-2015)

Real GDP Growth of Pakistan

Source: Fiscal Policy Statement 2015-16

Figure 2: Fiscal Deficit % GDP of Pakistan (1991-2015)

Trends in Fiscal Deficit % GDP of Pakistan
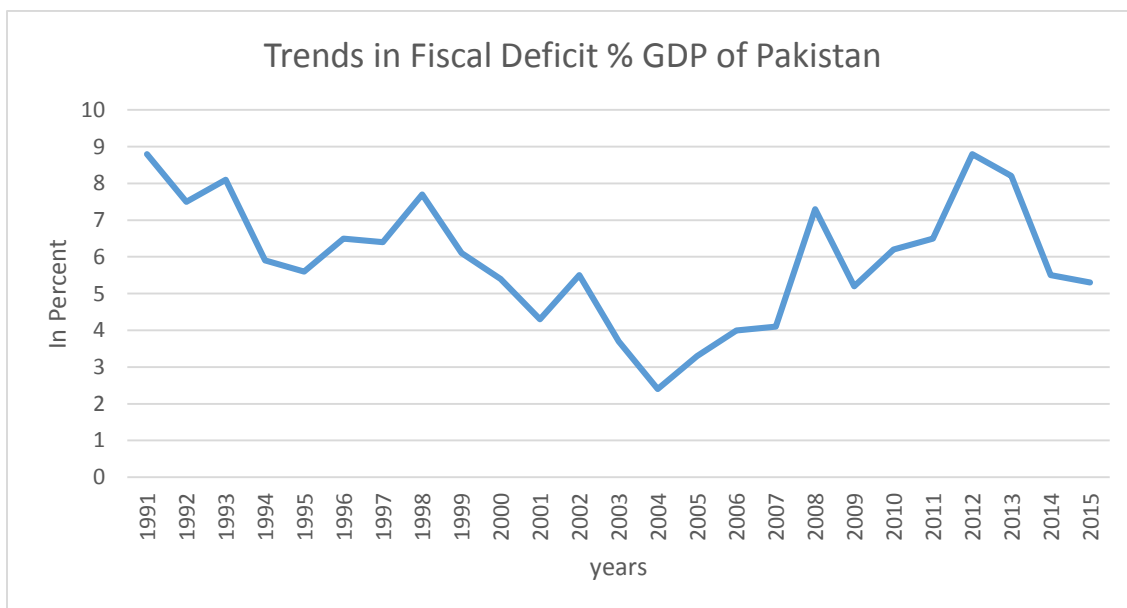
Source: Fiscal Policy Statement 2015-16

Figure 3: Govt. Expenditure and Tax Revenues as the % of GDP of Pakistan (1991- 2015)

Govt. Expenditure and Tax Revenues as the % of GDP of Pakistan
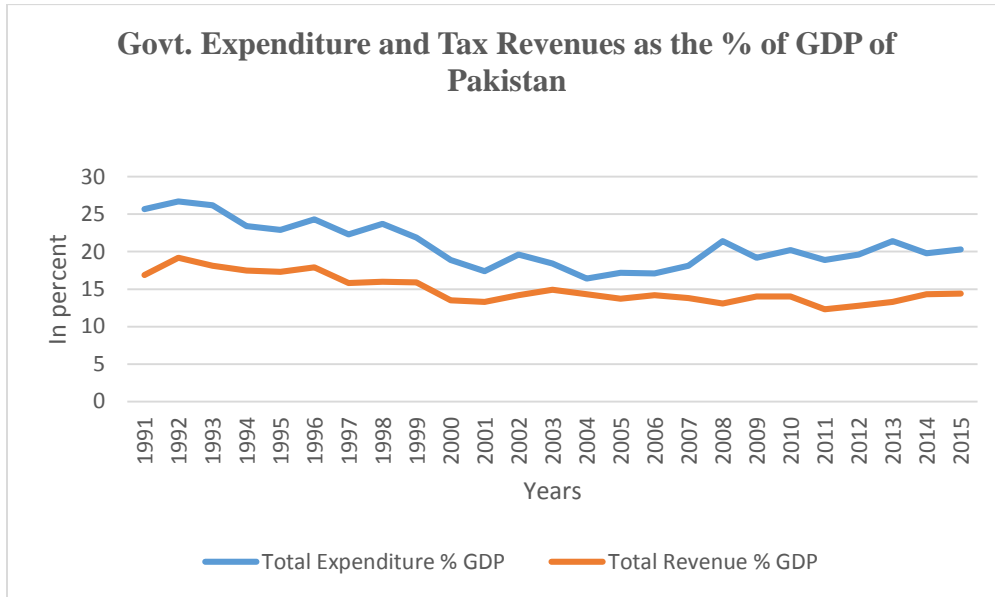
Source: Fiscal Policy Statement 2015-16

Figure 2: External and Domestic Debt of Pakistan (1977-2015)

External and domestic debt of pakistan
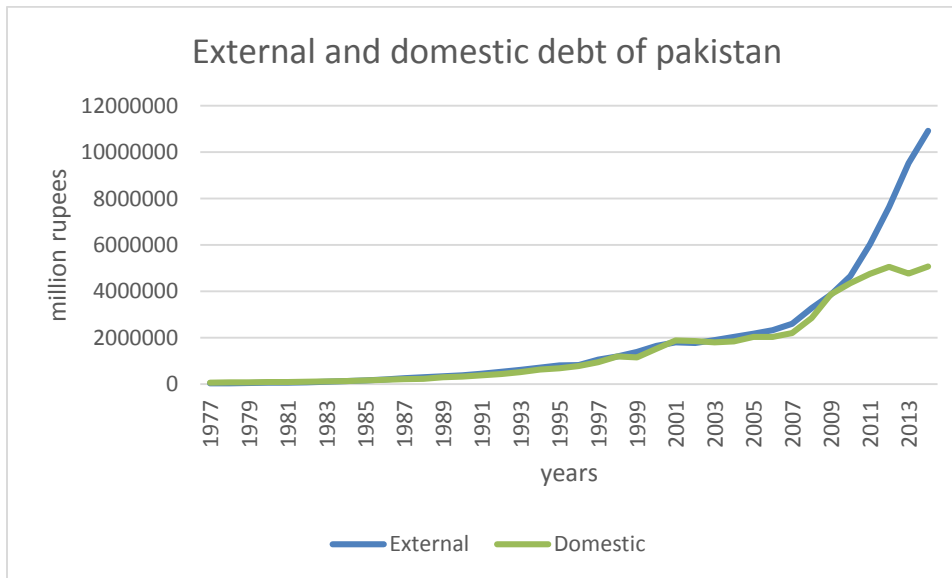
Source: Economic survey of Pakistan

Chapter 4

DATA AND METHODOLOGY

In this chapter, section 4.1 deals with the data sources and its time period. Section 4.2 is about the theoretical background of the model and section 4.3 represents an econometric model. The next section, 4.4 represents a description of the variables which shows the channel through which different variables influence the economic growth. Section 4.5 is about econometric methodology which includes unit root test, Causality test, endogeneity; Two stage Least squares (2SLS) and Generalized method of moments (GMM).

4.1 Data Sources

The time series data has been used in this study covering the period from 1977 to 2015 that is thirty-eight (38) years. The data is collected from the different issues of Pakistan Economic Survey, various issues of Pakistan Statistical year books and World Development Indicators.

4.2 Theoretical background of model

Public sector financial management has three cornerstones such as resource allocation (receiving money), controlled delivery (spending money) and reporting on money (accountability or management) (Graham ,2014). PFM involves the collection of money and spending of money at government level. The Public sector collects funds through taxation system, transfers, fees, the sale of goods. Delegated officials are expected to spend public funds for the purposes for which they were allocated. Therefore, financial management involves having controls in place to monitor expenditures. The government must frequently and systematically monitor and report on the flow of money. This ensures the actual financial activity matches planned financial activity (Flynn, 2007). PFM encompasses the mobilization of public revenue, the allocation of this

collected revenue to various activities and management to utilize this public fund (Simson and Aziz, 2011). It is not an easy task for any country to improve the quality of services, increase productivity and better utilization of the limited resources at the same time. It is difficult to achieve quality and productivity with reduced cost in the public sector because the role of politicians and administration (Milakovich, 1990).

4.3 Econometric Model

Public financial management is associated with all aspects of resource mobilization and the management of expenditure at the aggregate level. In our model, we include Public expenditure, Public revenue, Public debt, financial administration, federal finance as independent variables with output growth of Pakistan as a dependent variable.

Based on theoretical postulates and following Odior and Alenoghena (2014), the relationship between growth and public sector financial development can be specified as:

$$G_t = \alpha + \beta_1 DOEBT_t + \beta_2 EXEBT_t + \beta_3 D * GOREV_t + \beta_4 GTEAD_t + \beta_5 GTEES_t + \beta_6 GTESC_t + \beta_7 GTTRA_t + \beta_8 FD_t + \beta_9 Opnesness_t + \beta_{10} DRM_t + \beta_{11} DRF_t + \mu_t$$

$$(1)$$

G_t is GDP, which is proxy of output growth, DOEBT is domestic debt and EXEBT is external debt. GOVREV represents Public revenue, which comprise of both tax revenue and as well as non-tax revenue. The tax reforms having a dummy along with tax variable included in this model to show a structurally different tax pre and post. GTEAD is government expenditure on defense, general administration and internal securities. GTEES shows public expenditures on economic services. GTESC is government spending on social community services. GTTRA consists of government expenses on transfer of payments. FD is financial development and openness is trade openness both are control variables. In this model, DRM_t and DRF_t are dummy variables.

DRM_t *is* equal to 1 if there is a democratic government and 0 otherwise (military government =0 and democratic government =1). DRM_t shows reform in the public sector and subscript "t" represent time period. This equation shows that economic growth influenced by various factors like domestic debt, external debt, government collective revenue, Government total expenditure on administration, social community services, economic services etc. A reasonable level of borrowing from external and internal sources can boost economic growth. Therefore, the coefficients of these variables are greater than zero showing a positive link with output growth. Contrary, huge borrowing can slow-down the development because the payment of interest against such loan is a burden for the society. Collected revenue along with reforms is used to meet the expenditures so it will stimulate the economic growth and has positive coefficient.

Various government expenditures have a positive impact on GDP growth like government spending on human development and public services etc. brings promising changes in the economy. The expenses made on education and health is considered to be the most important way of building human capital. Expenditure on economic services results in prosperity of the county. Thus, different types of government expenditure increase economic growth indirectly with positive magnitude. On the other hand, government spends on the transfer of payments such as subsidies and grants, etc.is having a negative impact on the economic performance of the country. In this regard, the government expenditure policy should not aim at protecting the interests of special groups. Subsides to boost the industrial sector can increase the production and employment which is good for economic growth.

4.4 Description of the Variables

Different variables have been used in this analyze to assess the impact of public sector financial management on economic growth. The list and description of the variables is as under.

4.4.1 Gross Domestic Product GDP

In this study, Gross domestic product is used as a proxy of economic growth. Growth means the expansion of output of goods and services and it is conventionally measured as an increase in GDP rate. Hence, GDP is perfectly satisfactory to use as a proxy of economic growth.

The GDP at current price represent the actual growth in gross domestic product due to price change. However, it represents only one side picture of actual growth as it is nominal GDP. In constant factor price, we consider the price of base year as constant. Then, we compute the gross domestic product growth rate of current year using the constant price. It will represent the true picture of the actual growth rate in gross domestic product. It is known as gross domestic product at constant price or real GDP.

4.4.2 Domestic Debt

Domestic debt is a loan that a country borrows from domestic institutional and individual investors to meet its expenditures. Over the years Pakistan has faced the problem of shortage of funds to finance its budget. To finance its development activities, the government has to rely on internal financial resources. Domestic debt includes two types of borrowing like bank and non-bank borrowing. A better utilization of this kind of borrowing puts a promising effect on the growth of the country. Extensive borrowing and its misuse create a lot of long-term problems for the economy.

4.4.3 External Debt

External debt is a type of loan that a country borrows from international institutions and state investors to meet its budgetary expenditures. The foreign lender comprises of commercial banks, governments or international financial institutions. These types of loans are in the form of

interest and usually paid in the currency in which the loan was made. A reasonable amount of borrowing from external source can enhance economic growth otherwise; it is a burden on the economy because the government has to pay the principal amount, but its interest also.

4.4.4 Total Government Collective Revenue

Government total collective revenue means earning of the state which include tax revenue as well as non-tax revenue. Tax revenue comprises of various tax returns, like value added tax, sales tax, income tax, property tax and tariff etc. Non-tax revenues the source of income which the government raised through other than tax sources. This income consists of different surcharges and revenue earned by civil government like fines, fees and penalties etc. A National Tax Reforms Commission was set up in 1985 by the government of Pakistan to present recommendations for improving the taxation system in Pakistan. The Commission submitted its final report in December 1986. In this study, interaction dummy variable of revenue is included to show a structurally different tax pre and post. Revenue is used to provide better facilities to the resident of the country. Government needs financial resources if it wants to promote industrial development. In this way, government diverts the scarce resources in productive uses with the help such revenue fund.

4.4.5 Government Total Expenditure on Administration

It covers expenditures related to defense research, military and internal securities. It also includes the expenditures on administration like central accounting, auditing, budgeting and staffing for tax administration and collection. Sound Law and order condition of the county boost economic activity and generates employment opportunities for the citizen of the country. Deteriorating law and order condition discourage domestic and foreign investment which effect economic growth negatively.

4.4.6 Government Total Expenditure on Economics Services

Government expenditure on economic and community services includes spending on the improvement of agriculture sector, construction, transport, communication and spending on the industrial sector. The expenditure made on agrarian reforms and other community services means all those measures which are aimed to improve theses sector. It is also an objective of the government to remove those obstacles which are responsible for keeping theses sector backward. Government spending on economics services plays a significant role in economic growth. Improvement in the agriculture sector will not only provide employment opportunity, but it also increases the welfare of the rural people. Infrastructure, especially transport and communication, is essential for raising the pace of economic development.

4.4.7 Government Total Expenditure on Social Community Services

Government spending on social community services encompasses operating expenses on education and public health. It is regarded as expenditure on human capital. There is consensus upon this fact that for the sake of attaining economic growth, literacy, skilled labor force and healthy manpower play a significant role. The shortage of skilled and semi-skilled manpower is a reason of economic backwardness of the most of the UNDC. The enhancement of educational and health facilities will create a more productive labor force. Skilled and healthy labor force will determine the character and pace of economic growth. Therefore, the expenditure made on social and community services; is regarded as an investment.

4.4.8 Government Expenditure on Transfer

If the government pays the payments to the people without their services, then this type of the expenditure is called transfer payments. Expenditures on transfer comprise of the payments of social security, unemployment allowances, pensions or scholarships to the students. It is like a

financial assistance given by the government to the public sector. In most of the developing countries this public spending is considered to be an important tool of the public financial policy. Development transfer of funds, promotes economic growth. Non-development transfers of payment do not generate revenue to the government.

4.4.9 Control Variables

There are lots of other determinants of GDP. In this study, two determinants of GDP (FD and openness) include as control variables. FD is Credit to the private sector as a share of GDP proxy for financial development and Openness is proxy for trade-openness.

4.4.10 Dummy Variables

There are two dummy variables include in this study like Public sector reforms and Military Vs Democratic government.

4.4.10.1Public Sector Reforms

Public financial reform is a strategy of the government to improve its financial management. It puts positive effect on the performance of the economy. Before 1990s, the public financial sector is backward in Pakistan. The government of Pakistan introduced financial reforms in 1991. In this context, government takes appropriate steps to improve its system of budgeting; reporting, budget execution, accountability and transparency, budget control and resource mobilization etc. PFM reforms have been implemented over the years and some are still on-going to improve PFM in Pakistan. However, we used reforms of 1990s as a dummy variable like DRF_t is equal to 0 in the absence of reforms and DRF_t is equal to 1 in case of existence of reforms.

4.4.10.2 Military Vs Democratic Government

Change in government is another dummy variable. DRM_t *is* equal to 1 if there is a democratic government and 0 otherwise (military government =0 and democratic government =1). Political instability can influence the economic growth.

A brief description and some background of the variables used is summarized in table 1 below:

Table 1: Theory, Intuition and Expected Signs

Variable	*Theory and intuition*	*Expected sign*	**Data Source**
GDP at constant factor cost	Proxy of economics growth	Depended variable	Various Pakistan Economic Survey
Domestic debt	A loan that country borrows from domestic institutions	+/-	Pakistan Economic Survey
External debt	A loan that a country borrows from international institutions	+/-	Pakistan Economic Survey
Public revenue	Tax revenue as well as non-tax revenue.	+	*Various Pakistan Statistical year*books
Expenditure on administration	expenditures to defense, military and internal securities administration	+	*Various Pakistan Statistical* yearbooks
Expenditure on economics services	expenditure on agriculture sector, construction, transport,	+	*Various Pakistan Statistical year*books
Expenditure n social community services	operating expenses on education science and public health	+	*Various Pakistan Statistical year*books
Expenditure on transfer	payments of socials security, unemployment allowances, pensions or scholarships	_	*Various Pakistan Statistical year*books
Reform in public sector	Reforms are positive associated	+	Dummy Variable
Military or democratic Government	Change in government put positive or negative impact	+/-	Dummy Variable
Financial development	Stimulate economic activity and hence increases economic growth	+	WDI
Trade openness	Promote economic growth	+/-	WDI

GDP at constant factor cost represents the true picture of the actual growth rate and known as real growth rate. Over the last 35 years Pakistan has experienced inconsistent real GDP growth rates. Pakistan needs to borrow from external and domestic sources to finance the given rate of economic growth. With lower saving rate, external and domestic debt is obtained to sustain the growth rate of the economy. Domestic debt and external debt may be positive or negative associated with the output growth of the country. Public debt is financing properly, then it will lead to higher growth. The negative effect of public debt work through two main channels, namely debt overhang and crowding out effect. The government collects revenue from different sources, including tax revenue and non-tax revenue. In this way, taxes are the main source of the revenue which is collected with the purpose of providing services to the citizen. If government properly utilizes its revenue, then it will effect of raising the output growth of the country.

There are several theories and studies regarding a relationship between government expenditure and economic growth. The inference of these studies suggests that government expenses on human capital and economic and community services are positively correlated to economic growth. Whereas, expenditure on transfer of payments like pension subsidies are not considered as the proper utilization of scarce resources. It is like exploitation of resources, leading to a negative impact on the output growth. Financial development and trade openness put a positive impact on the economy.

The people of Pakistan faced several decades under military government. The phases of the military rule started from 1958 to 1971 then 1977-1988 and last period was from 1999 to 2008. Military rule puts positive as well as negative impact on the output growth of Pakistan.

(Hussain, 2009) Historically and politically, the phases are divided in different groups. The revivalist eighties period started from 1977 to 1988. The time from 1988 to 1999 was considered

as muddling nineties and the reforming hundreds is the phase of 1999 -2007. These phase bring some positive and negative changes in the economy of Pakistan

Public reforms mean taking action to train the public servants and enhanced the use of information technology (IT). Public sector reforms also include efficient use of resources, transparency and accountability in government finances to ensure economic progress. There are several reports and indicators which confirm that the situation in Pakistan has changed because administration and public reforms. It has been observed that better economic growth is characterized by a better quality of PFM systems. Public sector financial reform appears to be positively related to the economic growth.

4.5 Econometrics Methodology

To capture the impact of public sector financial variables on economic growth (measured by GDP growth rate), it is essential to choose appropriate functional form and econometric model. Our estimation technique is based on four steps procedure. The first step consists of unit root test which involves the determination of order of integration. Non-stationary time series data may lead to spurious and inconsistence results. To avoid this problem, we check stationarity by applying the ADF test. There exists endogeneity in our model. Therefore, in second step, we used predictive causality test. For the estimation of model, we used Two stage Least squares (2SLS) in our third step. We used the technique of Generalized method of moments (GMM) in our fourth step.

4.5.1 Unit Root Test

Non-stationarity of the time series data is considered as a problem in empirical analysis. Spurious regression and inconsistence results arise due to non-stationary variables in the model.

If the variables in the analysis are non-stationary, then it means that the standard assumptions for asymptotic analysis will not be valid. We cannot accurately undertake hypothesis tests about the parameters of the regression. There are various tests to check the stationarity of the time series data. In this study, we applied augmented Dickey-Fuller test (ADF) for the purpose of checking stationarity. In ADF test, the null hypothesis shows that a series (Y_t) is non stationary. For testing stationarity, we are using a t statistic for $\beta = 0$ in the following equation:

$$\Delta Y_t = \alpha + \beta Y_{t-1} + \gamma_t + \sum_{k=2}^{n} \delta_k \Delta Y_{t-k} + \varepsilon_t \tag{2}$$

In this equation α, β, δ and γ are the parameters to be estimated and ε_t is white noise error term. $\Delta Y_t = Y_t - Y_{t-1}, \Delta Y_{t-k} = Y_{t-k} - Y_{t-k-1}$ = and k is equal to 1, 2, 3…. n. The series is said to be stationary if the value of the ADF statistics is not greater than the critical value at the significance level. In other words, it is accepted that if the p-value is higher than 5%, there is unit root. There is not existence of unit root if the p-value is lower than 5% and it will be written as $Y_t \sim$ I (0). If the series is non stationary, then it should be tested whether the series is stationary at first difference. If the series is stationary at first difference, then the series concluded as integrated of order one like Y_t is I (I)

4.5.2. Predictive Causality Test

To check the forecasting of one-time series with the help of other times series we use the Granger causality test that is the statistical hypothesis test. Granger causality test is generally test in the context of liner regression models. Granger causality is only relevant with time series variables. This test was developed in the 1960s. It has been widely used in economics, statistics and financial analysis since the 1960s.

In our analysis, we need to carry out the predictive causality test. Various studies provide evidence for a causal relationship between public debt and economic growth. Checcherita and Rother (2010), Tica et al. (2014) and Puig and Rivero (2014) have found a causal relationship of public borrowing and output growth. It means that the independent variables can be treated as dependent variables and endogenous variables can treat as exogenous variables. In other words, this is a two-way relationship between variables. Therefore, we used predictive causality test to check this phenomenon. For illustration, consider a bivariate linear autoregressive model of two variables GDP and external debt. If GDP is equal to Y and external debt is equal to X, then the mathematical formula of Granger causality is as follows:

$$Y(t) = \sum_{j=1}^{p} A_{11,j} Y(t-j) + \sum_{j=1}^{p} A_{12j} X(t-j) + E_1(t) \tag{3}$$

$$X(t) = \sum_{j=1}^{p} A_{21,j} Y(t-j) + \sum_{j=1}^{p} A_{22j} X(t-j) + E_2(t) \tag{4}$$

In this equation, p shows maximum number of lagged observations. The matrix A represents the coefficients of the model and E1 and E2 are residuals for each time series. If the variance of E1 is decreased by the presence of the X terms in the first equation, then it is said that x granger causes Y and vice versa. In other words, Y G-causes X if the coefficients in A11 are jointly significantly different from zero. F-test is used to test the causality. The null hypothesis is that the independent variable does not Granger-cause the GDP and vice versa in each case. We cannot reject the hypothesis that GDP does not Granger-cause external debt. At the same time, we cannot also reject the hypothesis that external debt does not Granger-cause GDP. We can say that Granger-causality runs two-way from GDP to external debt and not one-way. However, we

assume that all the variables related to government functionaries in our analysis are not correlated with disturbances. We will use these variables as instrumental variables.

4.5.3 Problem of Endogeneity

In regression analysis, it is assumed that independent variables of regression equation are uncorrelated with error term. In the presence of endogeneity, the Ordinary Least Squares (OLS) estimates are not only biased but asymptotically biased.

$$G_t = \alpha + \beta_1 DOEBT_t + \beta_2 EXEBT_t + \beta_3 D * REV_t + \beta_4 GTEAD_t + \beta_5 GTEES_t + \beta_6 GTESC_t + \beta_7 GTTRA_t$$
$$+ \beta_8 FD_t + \beta_9 Opnesness_t + \beta_{10} DRM_t + \beta_{11} DRF_t + \mu_t$$

In this model, domestic and external debts are creating endogeneity. There are different studies about the impact of external and internal debt on economic growth. These studies inferred that external debt and internal debt are creating endogeneity. Checcherita and Rother (2010) investigate the strong potential for endogeneity of the debt variable. There exists reverse causation like low growth rate of GDP will induce higher debt burdens. They use various instrumental variable estimation techniques to address this issue.

Tica et al. (2014) highlight that low economic growth leads to increase public debt. In recessions, public debt can be used as automatic stabilizers. The government increases spending with the help of public debt in order to increase GDP growth. There is increase in debt ratio when GDP falls. It happens, when debt is measured as a debt to GDP ratio. Both pubic debt and GDP growth can be influenced due to third factor. GDP growth, decrease and public debt increase in the situation of wars or economic crises that is an issue of endogeneity.

Puig and Rivero (2014) presented the possible existence of bi-directional causal relationship between public debt and economic growth in European countries. Panizza and Presbitero (2012)

describe the endogeneity problem in the relationship between public debt and economic growth. Abbas and Christensen (2007),Aiginger and Falak (2005) and Kumar and Woo (2010) obtain the similar characteristic of endogeneity of debt variable. While there is evidence that the negative correlation between economic growth and public debt does not imply that debt decreases growth. The low economic growth leads to higher levels of debt. The correlations between these variables are due to a third factor. Reinhart and Rogoff (2012)

The government gets loan from commercial banks and they provide under pure commercial basis. The competition among government and private sector develop. The demand for money, increase leading to increase interest rate. High interest rate decreases private investment as a result, output growth would not increase to desirable extend. (Musgrave, 1973) Bilan and Ihnatov (2015) point out that there exists, reverse causality between economic growth and public debt. There is possibility that GDP growth reduces the relative size of internal and external debt. Consequently, they used GMM estimation to solve the problem of endogeneity.

A government borrows to finance its budget. A government failure to repay of debt weakens domestic investor balance sheet and it's because a contraction of credit supply to the private sector as a result output will decrease. Interest payment and debt burden increasing because of public debt. The amount of loan spends on productive projects increase the productive efficiency of the economy. Productive projects generate revenue for the government. Unproductive loan does not lead to increase the productive capacity of the economy. (Mallucci, 2015).

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4.5.5. Two Stage Least Squares (2SLS)

The explanatory variables should be uncorrelated with the error term that is the fundamental assumption of the regression analysis. The estimates of Ordinary least square are biased and inconsistent in the case of the violation of the assumption. Therefore, two stages Least squares has been used to address the problem of endogeneity. Two Stages Least Squares (2SLS) is the extension of the Ordinary Least Squares method.

$$Y = \alpha + X\beta + \mu$$

$$X = [x_1, x_2 \cdots\cdots x_k]$$

X is a set of endogenous variables and that are correlated with error term E (X, μ) ≠0. In the presence of endogeneity, the estimate is not only biased, but it is also asymptotically biased. The solution of this problem lies in instrumental variables. Let Z be the valid instruments and there are two conditions of instrumental variables (1) Covariance of instrumental variable and endogenous variable is strong (2) Covariance of instrumental variable and error term is zero.Further, there are two stages or steps of 2SLS (1) Regress the variable which creating endogeneity (X) on Z that is instrumental variable to obtain $\hat{X}$ (2) Now Regress Y on $\hat{X}$ instead of X as $Y = \alpha + \beta \hat{X} + \mu$ (Then we get the 2SLS parameter estimates α_{2SLS} and β_{2SLS})

Let K be the number of required instruments and L is the number of available instrument, then Two stage Least squares is possible when L is equal to K or L is greater than K.

Limitation of 2SLS:

The condition for identification is that the number of available instruments is equal to the number of instruments required. Therefore, Two stages Least squares can be applied to identify

the equation. It cannot be applied in case of over identification that is the limitation of the 2SLS method. In order to address this limitation, Generalized Method of Movements (GMM) has been used.

4.5.6. Generalized Method of Moments

Hansen introduced the generalized method of moments (GMM) in 1982 for the first time. He developed the two steps GMM (2SGMM). The development of this method has had a major impact on empirical research in the field of economic and finance. Hansen and Hodrick in 1980 introduced the first vital application and Singleton in 1982 advent second important application of the generalized method of moments in the area of finance. Now it has become a necessary estimation procedure in applied economics and finance. Especially, the generalized method of moments has a lot of contribution in the area of asset pricing models.

The generalized method of moments is a generalization of many other estimation methods such as least squares, maximum of likelihood and instrumental variables. There are certain limitations of least squares and maximum the likelihood like least squares method depends on the exogeneity of the regressors whereas; maximum likelihood depends on the choice of the likelihood function. Consequently, GMM has advantage over other estimation methods. It is not necessary to have complete knowledge of the distribution of data for GMM estimation. It can be computationally very easy as compare to other methods. It is appropriate for the model having more moment condition then model parameters. The parameters of the model can be estimated and test the set of moment condition which arise in the natural way.

Hansen; Heaton and Yaron in 1996 presented two other ways for the computation of generalized method of moments like iterative generalized method of moments and the continuous updated

generalized method of moments. They presented two other ways of GMM as results of the inappropriate properties of the two steps GMM especially, in case of small samples. In 2001, Owen introduced another family of estimation procedures. Newey and Smith in 2004 and Anatolyev in 2005 have compared the second order asymptotic properties. According to them, second order bias of empirical likelihood estimator is less than the bias estimator of the three generalized method of moments. Guggen berger in 2008 concluded that asymptotic results do not necessarily hold in small sample. In case of small sample properties, we can rely on Monte Carlo simulations (Chauss, 2010).

Considering a linear regression model

$$Y = \alpha + \beta X + \mu$$

$$X = [x_1, x_2 \cdots x_k]$$

There are two moment conditions like (1) E (μ) = 0 and (2) E (X μ) =0. In case of violation of this assumption E (X, μ) $\neq$0; there is possibility of endogeneity and the solution lies in instrumental variables Let Z is the valid instruments $Z = [z_1, z_2 \cdots z_l]$. Instrumental variables fulfil the conditions of moments like instrumental variables are uncorrelated with error term E (Z μ) = 0 and Instrumental variables must be correlated with endogenous variable or covariance (Z X) is high. Let K is the number of required instruments and L is the number of available instrument. Two stage Least squares is possible when L is equal to K. If available instruments are greater than required instruments, then the generalized method of moments (GMM) is applicable.

Chapter 5

ANALYSIS OF EMPIRICAL RESULTS

This chapter starts with the descriptive analysis. In the section of descriptive analysis; mean, standard deviation and stability test are used to check how different variables behaved during different periods. In section 5.2, we conduct unit root test, namely the ADF test to investigate the order of integration. The section 5.3 represents the results of the Granger causality test. The section 5.3 shows the results of Two-Stage Least Square and Generalized Method of Moments.

5.1 Descriptive Statistics

The descriptive analysis is used for analyzing mean, standard deviation and coefficient of variation of variables. Estimation of mean, standard deviation and stability ratio is a way to describe economic and financial variables. Stability ratio is the standard deviation as a percentage of the mean. For descriptive analysis, we divide the whole sample period (1977-2015) in different sub-sample.

Here we compare GDP growth, external debt, domestic debt, revenue and various public expenditures during different decades. We have divided the data into five decades. The division of sub-sample is according to each decade. Then we are calculating mean, standard deviation and stability ratio for each era. The purpose behind distributing data into different era is that it reveals how differently, these variables behaved during each of these periods.

Table 2: Stability Ratio of GDP

Year	Mean	Standard Division	Stability Ratio
1977-2015	5666452.97	2757489.62	0.48663 (48.66)
1977-1980	1834965	370320.8	0.201814 (20.1814)
1981-1990	32493850	574405.9	0.017677 (1.7677)
1991-2000	51521433	494226	0.009593 (0.9593)
2001-2010	78469467	1035091	0.013191 (1.3191)
2011-2015	51167057	724727.8	0.014164 (1.4164)

In table 2, we compare the GDP growth during different periods or decades. The mean growth rate varies significantly over different decades with fairly rapid growth in 1977 to 2010. During the period of 1970s, the economy of the Pakistan faces downturn. Separation of East Pakistan and nationalization of industries puts an adverse effect on the economy of the Pakistan. It recovered quickly. Therefore, the economy slowed down in the late 1980s. It did not achieve its peak level and fell into next recession. The economy of the Pakistan experienced third decline in early 1990s. During the decade of 2000- 2010, the economy experience recovery and it continues in 2011 to 2015. The standard deviation moves quite a bit during these decades. The movement of standard deviation shows fluctuation is different time period.

Stability ratio is used to measure the volatility of GDP in each era. A high value of the stability ratio is considered as more volatility and vice-versa. The basic reason behind dividing this data into different decades and then calculating mean; standard deviation and the stability ratio is that it shows how the differently rate of economic growth react during each era. Table 2 provides

detail about the behavior of economic growth. We find that the 1981 to 1990 period is the most volatile.

Table 3: Stability Ratio of External, Domestic Debt and Revenue

Years	External debt			Domestic debt			Revenue		
	Mean	S.D	S.R	Mean	S.D	S.R	Mean	S.D	S.R
1977-2015	2087179	2874160.9	1.377	1527308	1668384.2	1.092	881857.4	1116069.9	1.2655
1977-1980	46750	11528.95	0.246609	74250	9708.244	0.130751	31485.23	10721.36	0.34052
1981-1990	1976000	111644.5	0.0565	1864000	81851.08	0.043912	1064647	45148.64	0.042407
1991-2000	9231000	390284.9	0.04228	8245000	373746.9	0.04533	4128849	199436.6	0.048303
2001-2010	26387000	980304.3	0.037151	24734000	922470.4	0.037296	12664050	582205.1	0.045973
2011-2015	43619000	1910711	0.043805	24425000	166043.7	0.006798	16408953	794440.7	0.048415

The figures of the table 3 aim to evaluate the nature and movement of economic variables by using the stability ratio. The mean values of different periods show that the burden of the external and domestic debt continuously increasing with the passage of time. The standard deviation of the external debt is showing an increasing trend as compare to the standard deviation of domestic debt. The stability ratio shows decreasing trend. We find that the decade

from 1991 to 2000 is the most volatile for domestic debt. The value of stability ratio for domestic debt is high during the period of the 1991-2000.

The revenue of the Pakistan shows an increasing trend. The mean values represent that the revenue of the Pakistan is raising with the passage of time. We have inferred from this table that the period from 1981 to 1990 is the less volatile. The value of stability ratio of revenue in that period is low as compare to the other periods.

Table 4: Stability Ratio of Various Government Expenditures

	GTEAD			GTEES			GTESC			GTTRA		
Years	Mean	S.D	S.R	Mean	S.D	S.R	Mean	S.D	S.R	Mean	S.D	S.R
1977-2015	689344.4	991987.5	143.9	10587.8	15022.02	141.8	20053.8	24172.4	120.5	305022.42	357822.6	117.3
1977-1980	12548.7	5756.415	45.8	348.5	71.83541	20.6	1201.4	277.932	23.1	4596.6	821.191	17.8
1981-1990	46031.96	17827.84	38.7	581.06	505.9213	87.0	3677.14	1426.19	38.7	30456.4	23006.84	75.5
1991-2000	141718	33643.28	23.7	1911.35	1276.832	66.8	10955.1	2528.58	23.0	198672.	84700.28	42.6
2001-2010	1092400	570281.2	52.2	24437.7	17439.81	71.3	27040.8	13778.2	50.9	484915.	239527.4	49.3
2011-2015	2806548	601330	21.4	28446	5798.98	20.3	72112.6	19030.9	26.3	110800	83540.83	7.5

Table 4 shows Mean, Standard Deviation and Stability ratios of various government expenditures. The Mean values of the government expenditure on general administration; defense and internal security (GTEAD) are continually increasing with the passage of time. However, the stability ratio is high during the decade of 2001 to 2010 with high Standard deviation. It is well known fact that the higher the value of stability ratio, the greater the dispersion in the variable. We have found that the period from 1981 to 1990 is the most volatile period for government expenditures on agriculture and transport (GTEES). Stability ratio is used for comparing the degree of variation in the data. When we analysis the statistics of the government spending on economic services (GTESC), we have realized that the period 2001-2010 is more volatile than other decades. In the same way, this table represents that the government expenses on GTTRA are increasing day by day. However, stability ratio is high during 1981-1990 and low in 2011-2015.

Table 5: Stability Ratio of control variables

Control variables	Mean	Standard deviation	Stability ratio
Financial development	24.07828	3.319342	13.78
Trade openness	33.8217	2.804263	7.006

Table no 5 represents the results of mean, standard deviation and stability ratio of financial development and trade openness.

5.2 Results for Unit Root Test

We have used Augmented Dickey Fuller (ADF) test for observing the order of integration of the variables. The results for the existence of unit root are presented in Table 6.

Table 6: Results of Unit Root Test

Name of variables	Level	1st Difference	
	t statistic (P value)	t statistic (P value)	Level of integration
GDP	0.3749 (0.9984)	-6.1807** (0.0000)	I(I)
external debt	0.1212 (0.9649)	-4.6842** (0.0032)	I (1)
Domestic debt	-1.295211 (0.8740)	-5.2153** (0.0010)	I (1)
Revenue	0.858307 (0.9997)	-6.9966** (0.0000)	I (1)
GTEAD	0.232317 (0.9974)	-6.624569** (0.0000)	I (1)
GTEES	-2.892785 (0.1760)	-8.388886** (0.0000)	I (1)
GTESC	1.871491 (0.9998)	-6.061239** (0.0001)	I (1)
GTTRA	0.4792 (0.9988)	-4.7126** (0.0030)	I(I)
CGOV	-1.873509 (0.6484)	-5.884456** (0.0001)	I(I)
Public Reforms	-1.641954 (0.7570)	-6.048738** (0.0001)	I(I)
Financial development	-1.458565 (0.8615)	-5.57818** (0.0003)	I(I)
Trade openness	-3.4217 (0.0638)	-7.607929** (0.0000)	I(I)

Note: - The asterisks (*) and (**) indicates statistical significance at the 5 percent and 1 percent

significance level.

The existence of non- stationarity in time series data is considered as a problem in empirical analysis. It leads to a spurious regression results which mean further inference is meaningless. It is important to check the stationarity of the data set. We used Unit root test to check whether the entire series are stationary or no-stationary. There are spurious results in the time series analysis if the variables I (I) (Newbold, 1974). The result of the table 6 shows that there is an occurrence of unit root. In other words, the entire series are not stationary at levels. Under ADF test, the null hypothesis shows that the series is unit root. The alternative hypothesis reveals that the series is stationary.

GDP, which is a proxy of the output growth is not stationary at level. The calculated value of GDP is less than the critical values at level. Moreover, the P value is also greater than the 0.05. The test statistic shows that the GDP is integrated at order of one. At level, external debt is non-stationary. It is because the value of t-statistic which is 0.1212 is less than the critical values. At first difference, external debt is stationary with one lag. The ADF test statistics, results reveals that domestic debt is integrated at order one, which is I (I). At first difference, the variable of government revenue is stationary. The government revenue is statistically significant at 1%, 5% and 10% critical values in the first difference.

GTEAD is the combination of government expenditure on general administration, defense and security. When we separately check the stationarity of all these variables we have found that these variables are not statistically significant at 1%, 5% and 10% critical values at the level. The P value of general administration, defense and security is (0.0000), (0.0033) and (0.0004) respectively at the first difference. The t statistic and P value of the aggregate expenditures of these variables are -6.624569** and (0.0000) respectively at the first difference.

GTEES is the composition of government expenditures on Agriculture and Transport. The result of tested series of agriculture and transport reveals that there is existence of unit root. At level, the t statistic is -3.1325 and -1.2633 for agriculture and transport expenditures. The value of t statistic is greater than the critical values. Therefore, we tested these variables at first difference and get the stationarity result. As far as the combine expenditures of agriculture and transport are concerned, we get the stationary result at first difference.

GTESC shows expenses of government on economics services like education, health and community services. The separate unit root results of education, health and community services imply that all the series are not stationary at the level. With various probabilities values ((0.0000), (0.0000) and (0.0001)), the test statistic shows that theses variables are intergrade at order of one. The aggregate of these variables, namely GTESC is also integrated at order of one.

GTTRA indicates debt servicing, subsidies and pension etc. From ADF test; the result shows that these variables are integrated at first difference. Collectively, these variables are also stationary at first difference I (I). CGOV is a dummy variable which shows changes in government. The outcome of the ADF test reveals that the dummy variable is also integrated at order one. Public reform is also a dummy variable which represent an improvement or positive changes is public sector financial management. The finding of unit root represents that the dummy variable of public reform is stationary at first difference. It has 0.0001 P values which is less than 0.005. Financial development and trade openness are also stationary at first difference

5.3 Results for Causality Test

We tested the existence of causality for the time series data set. The results of the test for the variables are presented in Table 7.

Table 7: Results of Causality Test

Null Hypothesis:	No of lag	F-Statistic	Prob.	Decision
GDP does not Granger Cause DOMESTIC	2	4.09437	0.0261	Reject
DOMESTIC does not Granger Cause GDP		1.75750	0.01887	Reject
GDP does not Granger Cause External	2	21.8289	0.0000	Reject
EXTERNAL does not Granger Cause GDP		3.38581	0.0464	Reject
GTEAD does not Granger Cause GDP		2.33664	0.0464	Reject
GDP does not Granger Cause GTEAD	2	1.82664	0.1129	Accept
GTEES does not Granger Cause GDP		0.05666	0.1773	Accept
GDP does not Granger Cause GTEES	2	5.25616	0.9450	Accept
GTESC does not Granger Cause GDP		0.97384	0.3885	Accept
GDP does not Granger Cause GTESC	2	1.47432	0.2441	Accept
GTTRA does not Granger Cause GDP		0.44064	0.6476	Accept
GDP does not Granger Cause GTTRA	2	3.04435	0.0621	Reject
REVENUE does not Granger Cause GDP		0.89570	0.4183	Reject
GDP does not Granger Cause REVENUE	2	0.23189	0.7944	Accept
CGOVE does not Granger Cause GDP		1.37932	0.2663	Accept
GDP does not Granger Cause CGOVE	2	0.92547	0.4067	Accept
REFORM does not Granger Cause GDP		0.88003	0.4246	Accept
GDP does not Granger Cause REFORM	2	0.30158	0.7417	Accept
GDP does not Granger Cause GDP Trade		2.30218	0.1169	Accept
Trade does not Granger Cause GDP	2	8.50792	0.0011	Reject
GDP does not Granger Cause FD		2.03647	0.1476	Accept
FD does not Granger Cause GDP	2	2.70543	0.0826	Accept

Causality test is used to check the causal relationship between the variables. Before analysis the consequences of the various actions, policy makers need to understand the causal relationship of the variables. We check either domestic debt cause output growth or output growth effect domestic debt. In the same way, we examine that external debt effect output growth and vice versa. We also investigate the causal relationship between output growth and other explanatory variables including dummy variables.

The result of the causality test is summarized in tables 7. The selection of maximum lag length is significant in the case of F-test. Time series data is used in this study with 38 observations. We have selected a maximum 2 annual lag length for such short observations. The estimation results of F-test for causality show that domestic debt effects the output growth. The finding of causality test presented that output also effect the domestic debt. F test is used to check the causality between external debt and output growth. There is existence of also reverse causation between the variables.

From the Causality test and with 2 maximum lags the result reveals that the government expenditures and government revenue do not show reverse causality with output growth. In other words, the government expenditure like GTEAD, GTEES, GTESC and GTTRA cause output growth and output growth do not cause government functionaries. In the same way, the finding of table 7 shows that the change in government and reforms do not show bilateral causality with output growth. The results of table 7 show that the control variables (financial development and trade openness) do not show reverse causality with output growth.

5.4 Interpretation of the Results of Estimated Model

Table 8: Results of Two-Stage Least Square and Generalized Method of Moments

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Name of Variables	2SLS	GMM
	Coefficient	Coefficient
	(p value)	(p value)
CONSTANT	-3477636.	-2646632.
	0.0106	0.0717
DOMESTIC	1.875457	1.562492
	(0.0000)	(0.0013)
EXTERNAL	-0.295706	-0.164492
	(0.2066)	(0.3726)
REVENUE	1.288472	1.148009
	(0.0651)	(0.0461)
GTEAD	-1.531923	-1.224464
	(0.0671)	(0.1933)
GTEES	33.76653	24.02900
	(0.0146)	(0.0576)
GTESC	13.41347	24.31435
	(0.6751)	(0.2795)
GTTRA	-5.579848	-4.095185
	(0.0082)	(0.0235)
REFORM	1428572.	1727704.
	(0.0000)	(0.0005)
CGOVE	-41808.81	-414673.9
	(0.8775)	(0.2311)
Financial development	11.71065	9.557251
	(0.0182)	(0.0385)
Trade openness	9.151536	8.271103
	(0.0127)	(0.0283)
Prob(J-statistic)	0.000000	0.010168

Instrumental variables

Instrumental variables are a set of variables which are correlated with the explanatory variables and uncorrelated with the disturbances. Results of Causality Test show that Domestic debt and External debt are creating endogeneity. Therefore, in this study, both variables are not used as instrumental variables (IV) and all the other variables are used as instrumental variables.

5.4.1 Two-Stage Least Square

The outcome of the table 8 shows that three parameters are inversely related to economic growth. One unit increases in domestic debt will let to increase the output by 1. 88 units. The P value of domestic debt is 0.0000 which clearly showed that domestic debt is significant for output growth. The positive effects of domestic debt relate to the fact that borrowing funds are utilized properly that leads to higher growth in resource-starved economies (Sheikh et al. 2007). On the other hand, external debt is negatively associated with growth. The output will decrease by 0.29 units due to one-unit increase in external debt. Moreover, external debt is non-significant as the P value is 0.2066 which is greater than 0.05. Interest load of external financing may absorb important government revenues. Huge external debt means capital outflow in the form of interest which will discourage the development of the country (Akram, 2011). Instead of depending on extensive foreign assistance, government should increase domestic saving and as well as reduce useless expenditures.

The result of 2SLS shows that effect of government revenue on economic growth is positive. Furthermore, revenue is significant variable at 10 % as the P value is 0.0651 that is less than 0.10. Revenue is collected by the government in order to provide public services to its citizen. A better utilization of such revenue accumulates the performance of the economy.

Government spending on social and community services (GTESC) will have the effect of removing social and economic backwardness. As the findings of table 8 shows that there will be 13.413 units increase in output as a result of one-unit increase in government expenditure on social and community services. The citizens are active agents of any county and they can accumulate capital; build social, economic and political organization. Educational expenditure will increase literacy and also helpful in improving the skill of manpower. Health expenditure will reduce diseases which result in increasing efficacy and life expectancy of the citizen. Consequently, the productivity of the people will increase as a result of increase in government expenditure on health, education and other social and community services which would accelerate economic growth (Asghar et al.2011).

The coefficient results of table 8 infer that expenditure made on economic services (GTEES) can play a significant role in the economic development of the country. GTEES consists of expenditure on agriculture, transport and infrastructure. If the government increases one-unit expenditure on economics services (GTEES) then output will increase 33.7 units. The government should pay special attention to providing economics services because it has a vital role to get prosperity. For example, if the agriculture sector remains passive the prices of food stuff will increase and the country will have to be imported goods which put pressure on the foreign exchange reserves. Because of government spending on agriculture, transport and infrastructure, the social and economic life of the people will change. The feudalism will shrink and the unequal income distribution will fall which put the economy on the way to progress.

The coefficient in the results indicates that the government expenditures on transfers of payment (GTTRA) appear to be negatively related to the economic growth. One-unit increase in transfer of payment like pension and subsides etc. will let to decline the output by 5.57 units.

Government expenditures on general admiration, defense and internal security (GTEAD) have also negative coefficient. It means that one-unit increase in this kind of government spending will let to decline the output by 1.53 units. Both types of expenditures are significant in nature as the P values for GTTRA and GTEAD are 0.0082 and 0.0671 respectively. Internal security of the country strongly affects the living conditions of the people. It also encourages foreign investment which boosts the economic growth. In our study, the government expenditure on defense and internal security is inversely related to output growth, which clearly means poor financial management in this sector. Most of the transfers of payments are not considered as a good policy tool of the government because it is inflationary in nature and it is a misuse of scarce resources. It was our predictions that the transfer of payment has a negative association with growth and we got the results which are according to our expectations.

There are two dummy variables, namely public reforms and change in regime used in this analysis. The finding of 2SLS represents that pubic financial reforms is significant dummy variable, whereas, change in government is insignificant dummy variable. Financial development and trade openness affecting the economy positively. One-unit increase in financial development and trade openness lead the increase the output by 11.7 units and 9.15 units respectively. Both control variables are significant at 5 %. This entire means that all the parameters jointly influence the output growth. The results also show that three independent variables, including two types of government expenditures have a negative association with output growth.

Then we check the normality which is 0.888 so we cannot reject the null hypothesis. It means that residuals are normally distributed. Then we checked serial correlation with 2 lags. The null hypothesis is there is no serial correlation. We cannot reject null hypotheses because observe R square and corresponding p value is greater than 5 %. If the p value goes down the level of

significance goes up. If p value is less than 5%, meaning that this variable is influence the dependent variable.

Table 9: Results of Heteroscedasticity Test: Glejser

The error terms, do not have constant variance in the situation of the heteroscedasticity. In the presence of the heteroscedastic, the parameters estimated are not biased but, the standard errors are biased. This table shows the results of the heteroscedasticity test.

Table No 10

F-statistic	1.610208	Prob. F(9,28)	0.1606
Obs*R-squared	12.95992	Prob. Chi Square(9)	0.1644
Scaled explained SS	10.30654	Prob. Chi Square(9)	0.3262

Prob. Chi-square (9) (obs*R-squared) (0.1644) > 0.05 (no heteroscedasticity/ homokedasticity)

Table 11: Results of Heteroscedasticity Test: White

F-statistic	1.162293	Prob. F(9,28)	0.3556
Obs*R-squared	10.33535	Prob. Chi Square(9)	0.3240
Scaled explained SS	6.575074	Prob. Chi Square(9)	0.6813

Prob. Chi-square (9) (obs*R-squared) (0.3240) > 0.05 (no heteroscedasticity/ homoscedasticity)

Table 12: Results of Breusch-Godfrey Serial Correlation LM Test:

Obs*R-squared	13.62808	Prob. Chi-Square(2)	0.0011

0.001 <0.05 there is autocorrelation

There is large value of F-stat which is 92.29 and 0 probabilities of error. The results of the 2SLS represent that all the independent variables jointly positively and negatively impact on the dependent variable.

5.4.2 GMM Estimation

The results of GMM estimation show that the output will increase by 1.56 units as the result of a one-unit increase in domestic debt. It is obvious that a reasonable level of borrowing from domestic source can enhance economic growth. The government should promote moderate levels of domestic borrowing for sustainable economic growth Babu et al. (2012) External debt discourages economic growth as one-unit increase in external debt will result in falling of 0.164 units of output growth. External debt may slow-down the performance of the economy by discouraging capital formation and it is also encouraging the expectation of tax increase (Atique and Kamran, 2012). This table also shows that domestic debt is significant and external debt is insignificant at 5 %. The outcomes of GMM estimation, represent a positive association between government revenue and economic growth. Furthermore, revenue is significant variables as the P value is 0.041 that is less than 0.05. The basic purpose of the revenue is to collect a reasonable amount by the government to serve its citizen. With the proper utilization of revenue, the government is in a position to provide basic necessities of life which accelerate the economic growth.

The results of table 8 concluded that the government expenses on social and community services (GTESC) can influence the economic growth positively. This type of expenditure positively affects the economy thought various channels. One-unit increase in government spending on health and education (GTESC) will enhance the output growth by 24.3 units holding other constant. For the sake of development; literacy, skill, training and research play an important role. This entire means that education and better health facilities provide a ladder to uplift the skills of the people, which in a turn become helpful to attain the objective of higher income, output and growths (Asghar et al.2011).

The finding of table 8 concludes that the impact of government spending on economic growth is positive through the provision of economics services to the public. Economics services include expenses on agriculture reforms; infrastructure facilities and transport facilities etc. Expenditure on economic services is insignificant variable as the P value is 0.0576. However, economic growth stimulates to 24.029 units as a result of one unit rise in the expenditure of economic services (GTEES). If the government increases expenditure to improve agriculture sector the productivity of agriculture goods increases, which in turn will increase export and foreign reserves. On the other hand, increase in expenditure to improve infrastructure and transport facilities will provide employment opportunities.

Government expenditures on transfer of payment (GTTRA) and on general admiration, defense and internal security (GTEAD) have not positively contributed to output growth. The result regarding to GTEAD expenditure is quite surprising and it is opposite to our assumptions. It implies that the management of the public resources does not properly utilize in these sectors of the economy. One-unit increase in GTTRA and GREAD will reduce the output by 4.09 and 1.22 respectively. GTEAD is insignificant and GTTRA is significant as the p value is 0.1933 and 0.0235 respectively. Sound law and order conditions bring foreign investment and also give incentive to domestic investors to invest. The internal security also protects individual property rights. But, huge expenditure on defense and security put an adverse effect on the economy. This is the reason behind the inverse association between output growth and government expense on defense and security which we observe in this study. Transfer of payment like pension and subsidies are important tools of the government policy to accelerate economic development. But, our analysis shows the negative impact of such government tools on the economy. This inference

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is quite accurate to our expectations. In this regard, the government should avoid that transfer of payments which are inflationary in nature and that hamper the economic growth.

The results of GMM show that all the independent variables jointly influence the economic growth. The results of the Generalized Method of Moments also represent that some parameters put more influence or variation in output growth as compared to the others. Furthermore, three independent variables are negatively associated with GDP, which is the proxy of the output growth. Two types of government expenditures like GTEAD and GTTRA are also have a negative coefficient, which is quite accurate to our expectations. It simply means wastage of scarce resources and poor public financial management.

The estimation of GMM concludes that both dummy variables, namely pubic reform is significant and change in government are insignificant dummy variables. Financial development and trade openness put promising effect on the economy. One-unit increase in financial development and trade openness lead the increase the output by 9.5 units and 8.2 units respectively. Both control variables are significant at 5 %. In this study, mostly independent variables are significant. It means variation of independent variables successfully explain the variation of economic growth.

Chapter 6

CONCLUSIONS AND POLICY RECOMMENDATIONS

6.1 Conclusions

The evidence of this study examined that the management of the public financial resources have a significant influence on the output growth of Pakistan. The annual data used in this study covers the period from 1977 to 2015. Implications of 2SLS and GMM techniques on the sample data signified that public sector financial management leads to speed up the growth process. In addition, this study also analyzed the impact of financial reforms of 1990s on growth and concluded the positive impact on output growth.

The empirical consequences demonstrate a significant negative impact of certain public expenditures and external debt on the output growth. The finding of this study shows that various types of government expenses have differing impact on the GDP growth. The spending on administration; defense, and transfer of payments have a negative effect on the economy. It indicates that the resources are poorly managed. At the same time, the empirical outcomes reveal a significant positive impact of certain public expenditure on the economy, such as productive expenditure has the capacity to boost the economic growth. Spending at government level is a crucial component of fiscal policy to achieve economic objectives. Therefore, it needs a well-designed government expenditure policy. Otherwise, it will lead to failure of policy and public will bear all the costs.

The domestic debt spent on productive purpose boosts economic growth. As far as external debt is concerned the government should not go for such debt from foreign lenders such as

commercial banks, foreign government and international financial institutions as the country has to pay heavy interest against these loans. In this case, the government is not only supposed to pay the principal amount but interest as well. This results in leakages of foreign reserves having an adverse impact on the economic growth. This study also concluded that financial development and trade openness (control variables) also put a positive effect on the output growth.

This study concluded that properly stacked government projects, better budget preparation, and efficient financial planning process with reform of 1990s are essential for prosperity of the economy. The basic objective of this study is to elaborate the fact that government programs in the pubic financial sector should be well managed. It means openness and transparency is generally a challenging task for the government administration. Reforms in financial management are also difficult as these require the political willingness to make hard choices. Reforms like proper budgeting, reporting, execution and transparency if are devised then they have a positive impact on output growth.

6.2 Policy Recommendations

Despite recent advancement in financial framework, still practices are not up to the standards in case of Pakistan. The need of the hour is to strengthen financial reporting and accountancy profession and practices. Therefore, government should take appropriate steps to educate and train its public servants in order to obtain better results.

The patterns of the expenses should be well managed to fulfil the needs of the economy. Much is recommended that there is still a need to improve the governance. The government should decrease its expenditure on transfer of payments like pension, subsidies, allowances and

payments of social security. These expenditures are inflationary in nature and creating economic and social problems.

Factors such as useless foreign trips; unproductive projects and misuse of resources are just leakages form government treasury, which adversely affect the implementation of governmental fiscal policy. Government should work on the issues related to transparency and accountability. The budget on defense is out of control. But current Geo-strategic situation in the region does not allow the government to reduce defense expenditures. However, rational allocation and utilization of funds in this sector can be redesigned.

The government should limit foreign borrowing which has negative consequences on the economy. For the policy implementation, it is recommended that government should increase domestic savings and export earnings, which will reduce the reliance on external debt. The public administration should closely monitor the implementation of debt managing strategies in order to avoid the leakages of external debt.

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