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FISCAL DECENTRALISATION AND POLITICAL ECONOMY OF POVERTY REDUCTION: THEORY AND EVIDENCE FROM PAKISTAN

Manzoor Ahmed

A Thesis Submitted in Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Economics at Durham University

DECLARATION

I hereby declare that the materials contained in this thesis have not been previously submitted for a degree in this or any other university. I further declare that this thesis is solely based on my own research.

Manzoor Ahmed

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Manzoor Ahmed

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DEDICATION

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ABSTRACT

This thesis explores the relationship between fiscal decentralisation and poverty. The thesis consists of four parts. First part reviews the related literature addressing different aspects of fiscal decentralisation and poverty and highlighting the research gap that this thesis intends to address. It also explains the possible channels through which fiscal decentralisation potentially affects poverty. Second part describes the political economy, fiscal decentralisation and poverty in Pakistan. It underlines that fiscal policy decisions in Pakistan are made to reflect many vested interest groups and institutions that may be failed to provide basic social services. Additionally, it discusses the development of federalism and fiscal decentralisation in Pakistan and shows that how the vertical and horizontal resource distribution affect the social and economic development of the provinces. This part also discusses various approaches, measurements and trends of poverty in Pakistan. Third part presents a systematic relationship between fiscal decentralisation and poverty both theoretically and empirically. The theoretical framework implies that if the federal transfer rate is larger, then the decentralisation measure will be greater. Since a larger federal transfer rate reduces poverty, poverty and expenditure decentralisation are expected to be negatively related. In addition to the model, there is an extensive empirical study on Pakistan to look at the impact of fiscal decentralisation on poverty besides investigating the potential channels through pro-poor sectoral outcomes. Ordinary Least Squared, Fixed and Radom Effect Models and Generalised Method of Moment Instrumental Variables methodology is used on simple time series as well as panel datasets covering four provinces of Pakistan over the period from 1975 to 2009. The empirical results suggest a strong relationship between expenditure decentralisation and poverty – proxy alternatively by headcount poverty, poverty gap, severity of poverty and the human development index. Both rural and urban poverty reduction have statistically significant relationship with expenditure decentralisation. The results also reveal that decentralisation improves pro-poor sectoral outcomes of education, health and agriculture that consequently affect poverty.

The last part illustrates the effectiveness of the devolution reforms by transferring fiscal, political and administrative authorities to local governments on certain social and economic sectors that are believed to be pro-poor. The evidence shows that the devolution significantly changes the size and magnitude of investment on many social and economic sectors. In all provinces, the investment increases in sectors such as education, healthcare, agriculture, water management, water supply and sanitation, rural development and the civil work. Since these services are strongly associated with local needs, it is reasonable to conclude that the devolution implicitly enhances the living standard of the local communities, especially the poor.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

A key argument supporting fiscal decentralisation reform is that it can improve the public sector services and help reducing poverty. This thesis evaluates the impact of fiscal decentralisation on poverty within a political economy framework. We describe and estimate several possible direct and indirect impact of fiscal decentralisation on poverty and pro-poor social services delivery. The review of theoretical and empirical literature reveals that albeit the quest of fiscal decentralisation and its potential effectiveness on various aspects of society has received a considerable attention in public finance and development economics literature, a robust and systematic research assessing the possible impact of fiscal decentralisation on poverty and pro-poor social services delivery has not been conducted. In order to meet this academic need, we therefore conduct a systematic theoretical and empirical analysis of the relationship between fiscal decentralisation, poverty and social service delivery, considering other political economy aspects.

After thorough review of the related literature of fiscal decentralisation and poverty we develop a political economy model based on legislative bargaining principles, where we predict that fiscal decentralisation is an effective policy tool for poverty reduction. Considering the theoretical prediction an empirical analysis is carried out using Pakistan as test-bed. The issue is complex because fiscal decentralisation could have positive or negative impact on poverty. The empirical analysis is based on simple time-series as well as on panel regression with 35 (34) observations and four provinces. Various

indicators of poverty are examined to assess the impact of decentralisation on poverty. The overall conclusion is that fiscal decentralisation actually helps poverty reduction.

1.1 BACKGROUND OF THE STUDY AND MOTIVATION

Undoubtedly, the topic of fiscal decentralisation has received considerable attention over the last three decades both in developed and developing countries for different reasons. The developed countries seek to put in place a more effective public services provision mechanism, especially as an alternative to the welfare state model. The developing countries seek to escape from the centralised planning of the political economy, which causes inefficiency in public services delivery and generates malfunctioning in governance and encourages bureaucratic corruption (Jonhnston, 2000; Fisman and Gatti, 2002). In developing countries the push for fiscal decentralisation has been powerful, where in all international institutions'[1] development programmes decentralisation has been included as a major policy agenda for these countries. The latter therefore have promptly initiated and incorporated decentralisation in order to strengthen their political and socio-economic institutions. For instance, in 2001 decentralisation was launched in Indonesia as a policy reform to support regional development, boost economic growth and alleviate poverty (Salim, 2009). In Vietnam, because of the decentralisation scheme in 1998, 43% of total national expenditures shifted to the local governments, which allowed the local governments to play a major role in human development: about three-quarters of education and two-third of health was undertaken by local governments in Vietnam (Rao, 2000). Bolivian economy decentralised in 1994 where 20% of tax revenue and 40% of expenditure responsibilities have been devolved to local and municipal governments (Faguet, 2004). Brazil also embraced fiscal decentralisation in 1988 through a constitutional mandate and consequently augmented sub-national fiscal autonomy to 22.5% of total revenue collection[2] (Shah, 1990). Among other Latin American countries, Argentina is believed

[1] The World Bank for International Development and Reconstructions, International Monetary Fund, Asian Development Bank and the United Nation Development Programme are the leading International Development agencies. Aids and donations to developing countries, trade agreements and other treaties put pressures on central governments to devolve the critical functions to sub-national governments.

[2] However, Brazil failed to devolve expenditure responsibilities to sub-national governments, therefore, had to face fiscal imbalance at federal level.

to be the most decentralised economy in the region with about half of the total public expending are carried out at the subnational government level (Inter-American Development Bank, 1997).

Similarly, decentralisation has initiated in Tanzania under the Local Government Act of 1982, wherein sub-national governments' sources have been increased significantly that eventually led to improve the efficiency and enhance the responsiveness of local governments in services delivery (Slater, 1989). In Morocco, political unrest and regional inequity led to decentralisation in 1975 to reform its politico-administrative and economic system as well as strengthen the sub-national governments' financial structure (Nellis, 1983). Likewise, in Tunisia decentralisation was introduced as policy to reform the political economy in 1987 (Manor, 1999). Similarly, to improve the essential services delivery and generate employment opportunities to uplift the poor in Colombia, a Law of local governments' functions was promulgated in 1993 to bring together the decentralisation and poverty alleviation programmes (Iregui, 2005). India, though constitutionally a federal structure since the inception (1947) with clear demarcation of financial resources between union and state governments, has initiated more decentralisation reforms in 1992 through the 73rd and 74th constitutional amendments and in 1994 through *Panchayati Raj* Act to revitalise the decades old local government system (Rao, 2000; Chaudhuri, 2005). Mexico implemented decentralisation reforms during 1995-1998 in which 20.5% of tax income (previously collected by the federal government) are now being distributed amongst the states under the regulation of National System of Fiscal Coordination (Fausto and Brenda, 2008).

The wave of decentralisation was not confined to above mentioned countries, but ensued in many other countries across all continents. For instances, Ethiopia decentralised its governing system in 1991 (Egziabher, 1998), Ghana in 1988 (Crawford, 2008), Uganda in 1997 (Azfar and Livingston, 2002) to name but a few.

Fiscal decentralisation gained acceptance as a reform policy in above mentioned and other countries with the realisation that the complex politico-economic and social issues may not be handled through central planning, execution and implementation (Rondinelli and Cheema, 1983). The decentralisation process was further reinforced when local

people started demanding more political and democratic powers at local level. It is widely believed that locally elected governments, mandated with the fiscal and administrative authority, are expected to perform far better and with more efficiency in developing, planning and provision of the public services than a remote central government. To support this argument, Smith (1985) and Manor (1999) consider the fiscal decentralisation as an effective policy tool that may help in resolving issues such as regional inequity and disparity, poverty reduction and political instability.

However, opponents of fiscal decentralisation believe that it causes inefficiency in economics, increases social inequality and adversely affects poverty alleviation (Samoff, 1990; Tanzi 1995; 2002; Blair 2000; Katsiaouni 2003; Devas 2004). Samoff (1990), for example, shows that decentralisation as policy tool has been largely failed around the world. Supporting his conclusion, Slater's (1989) study on Tanzania illustrates that decentralisation was failed to enhance the local capacities in implanting local programmes.

Simultaneously, the issues related to poverty have also been in the interest of development community, international institutions, research organisations and the governments of developed and developing countries. These issues include the measurement of poverty, identifying and targeting the poor. Moreover, these organisations and countries have been engaged in shaping new poverty reduction programmes and adopting poor-oriented economic policies to provide economic assistance to the poorest of the poor and disadvantaged.

While, the two concepts attract equal attention from the development agencies when examining the reform policies and dealing with the structural adjustment of developing countries, it is fair to claim that little or no systematic effort has been made to examine the interaction of both concepts and develop a theoretical and empirical link to the wider public finance and development economics literature. The reasons have been asserted in the leading works of Musgrave (1959); Oates (1972; 1999); Feldstein (1975); Bird (1993); Smoke (2001); Yilmaz and Robert (2002; 2003) where it is argued that fiscal decentralisation and poverty alleviation are two distinct themes of public finance and development economics literature. While, fiscal decentralisation and fiscal federalism

are related to the concept of efficiency in public service delivery, poverty reduction or alleviation as a policy is well connected to the concepts of 'redistribution' of income and wealth of a nation. The literature, therefore, maintains that central government is better equipped in dealing with the externalities that are serious economic issues, which may not be handled by decentralised governments. Similarly, the same literature assigns the redistribution responsibilities to the central government because the latter can adopt and launch more effective re-distributional policies that affect the poor.

However, considering poverty reduction as purely a redistributive matter and assigning this responsibility to central government not only limits the understanding of poverty and dealing with it from a broader socio-economic and political perspective, it also restricts the literary scope of the public finance literature that fails to link fiscal decentralisation and poverty. It is true that a recent strand of literature[3] has made a strong attempt to understand the poverty alleviation outcomes through the fiscal decentralisation, ironically however their results are inconclusive, programmes/sectors specific and indeed skeptical about the role of the fiscal decentralisation in poverty reduction. Therefore, it is appropriate to argue that this literature has failed to provide a systematic theoretical underpinning and empirical evidence that help in understanding a relationship between the two concepts.

1.2 AIM, OBJECTIVES AND HYPOTHESES

The studies mentioned above reveal the fact that both theoretical and empirical perspectives of the impact of decentralisation on poverty are divided and inconsistent. The inconsistency in empirical work on decentralisation and its potential impact on poverty and social service provisions therefore warrant a systematic research. In addition, the lack of a political economy model, where fiscal federalism and welfare are interlinked, demands a thorough and in-depth academic research illustrating the relationship between fiscal decentralisation/fiscal federalism and poverty within a political economy setting. This thesis is an attempt towards this direction in order to fill

[3] Brown and Oates, (1987); Boone, Bird, (1993) and (1998); Braun and Grote, (2000); Crook and Sverrisson, (2001); Alderman, (2002); Lindaman and Thurmaier, (2002); Crook, (2002); Krishna, 2003; Schneider, (2003); Faguet (2004); Bardhan and Mookherjee, (2005); Galasso and Ravallion, (2005).

this academic gap in public finance literature. Thus, the primary objective of this research is to investigate the political economy setting under which the evolution of fiscal decentralisation and devolution process takes place and processes through which it helps reducing poverty and improving social services delivery.

This research has germinated from the idea that efficient provision of public services and goods to the poor and disadvantaged is the basis of any poverty reduction programme, and that fiscal decentralisation potentially enhances the efficacy of certain kinds of poverty reduction interventions. The thesis proposes that because the sub-national governments possess the local knowledge and understanding about the local people needs, whereas the central government lacks while designing and implementing poverty reduction policies. Therefore, the sub-national governments have a strong role to play in poverty reduction policies.

After providing an in-depth analytical survey of the dynamics of fiscal policymaking, evolutionary processes of fiscal decentralisation and poverty, this thesis develops a legislative model that gives insights into how fiscal decentralisation may affect the welfare level and reduce poverty in county level.

To the best of our knowledge, no in-depth theoretical study has been carried out so far to examine the relationship between fiscal federalism, welfare and poverty reduction outcomes. Some of the studies, like Oates (1972, 1985); Brown and Oates (1987); Lockwood (2002, 2006); Besely and Coate (2003); Bardhan and Mookherjee (2005); Galasso and Ravallion (2005); Faguet (2004) modeled and showed both the positive and negative impact of decentralisation on some anti-poverty programmes. They therefore provide a fine background for the construction of a theoretical framework to evaluate the interaction of fiscal federalism and poverty reduction in a political economy setting. However, Marsiliani and Renström's (2007) work on bargaining game and medium voting theorem provides a solid background to develop a legislative bargaining model on fiscal federalism to answer the research question(s) of this study. The theoretical model of this thesis therefore is expected to bridge the current theoretical gap and contributes to both academic and policy-making circles.

The theoretical model of this thesis demonstrates that in the bargaining equilibrium the ratio of local expenditure to total expenditure is increasing in the federal transfer rate. Thus, the model proposes that if the federal transfer rate is larger, then the fiscal decentralisation measure is greater. Since a larger federal transfer rate alleviates poverty, we would expect poverty and expenditure decentralisation to be negatively related.

The use of legislative bargaining model of fiscal federalism for this study is rationalised in chapter 9 with more details. However, at this poin it is worthwhile to mention that the kind of political and economic structure that Pakistan has, would certainly demands a legislative theoretical framework to analyse the political economy of fiscal decentralisation and its consequent impact on social services provision and poverty reduction. The theoretical model is applied on Pakistan to test the validity and prediction of its main proposition. This model suffices to the empirical purpose that we are aiming, using Pakistan as test-bed because; the latter is a federation of four provinces (second tier of government) and with several district governments (third tier of government). Moreover, the federal government of Pakistan collects almost all resources and then shares the same with provinces, and the latter subsequently distributes a part of the transferred resources to district governments. The federal and provincial legislators bargain in the legislative assemblies to grab more funds for their respective jurisdictions. As we will explain and analyse in this thesis that fiscal resource allocation and intergovernmental resource transfer take place, largely, on political economy considerations. Therefore, we expect that a bargaining legislative model is suitable to capture the political economy situation and hence provides us an appropriate framework to assess the efficacy of fiscal decentralisation on poverty reduction within a political economy setting.

As mentioned above, fiscal decentralisation has been widely used around the world as a reform policy to improve the socio-economic well-being, economic and political stability, good governance and particularly to tackle poverty related issues (Dillinger, 1994; Campbell, 2001). However, in spite of its importance in poverty reduction strategy and its potential effectiveness in poverty alleviation policy, a countrywide

empirical research has not been conducted to analyse the link between decentralisation and public goods and services provisions and hence poverty reduction.

Thus, besides exploring the theoretical foundations that link these two concepts, this study seeks to undertake an in-depth empirical study that will cover the width and breadth of a country (Pakistan) to see whether a link exists between poverty and fiscal decentralisation. Interestingly, the available literature does not discuss Pakistan with regard to fiscal decentralisation in any aspect, let alone the impact of the latter on poverty alleviation. Pakistan provides a good case to this study because; first, she is a federal country comprising four federating units (provinces) and numerous local governments. The diversity across provinces requires Pakistan to adopt a decentralised federal structure where the provinces can exercise internal autonomy to run their local fiscal, political and administrative affairs. Therefore, since inception of the country there has been a strong demand for decentralisation by the federating units. Second, Pakistan adopted a widespread devolution plan in 2000-01 to empower the local governments by transferring multiple political, fiscal and administrative powers to the latter. In this way Pakistan's case allows us to examine the effects of fiscal decentralisation and devolution carefully throughout the country. Focusing on one country allows us to avoid problems such as controlling for external shocks and other exogenous factors, political regimes, data comparability, political regimes and social and historical factors.

In order to statistically prove the theoretical prediction(s), this study empirically tests the following main hypotheses using case of Pakistan:

Hypothesis 1: Holding everything else constant, an increase in provincial governments' spending power, as measured by fiscal decentralisation, leads to an improvement in the standard of living of the poor, as proxy either by headcount poverty, poverty gap, squared poverty gap or the Human Development Index ranking.

Hypothesis 2: Fiscal decentralisation is likely to have a statistically significant positive impact on education, which in turn may translate into poverty reduction outcomes.

Hypothesis 3: Fiscal Decentralization has a positive relationship with healthcare outcomes, since fiscal decentralization provides more resources to subnational governments to spend on healthcare sector. Statistically significant impact of fiscal decentralisation on healthcare outcomes may in turn lead to have a positive impact poverty reduction.

Hypothesis 4: Provincial governments' fiscal and political autonomy (fiscal decentralization) leads to more expenditure/investment in agriculture that will transform into improving the livelihood of the poor and the marginalized communities in Pakistan.

Hypothesis 5: After the devolution, the pattern of public investment changes, and sectors related to social services provision receive more expenditure; this may translate into poverty reduction.

In Pakistan fiscal decentralisation may entail great political economy complexities in terms of the intergovernmental fiscal relations and coordination failure in fiscal relations between the federal and provincial governments that are likely to have a strong bearing on the fiscal position of provincial governments in pursuing social services and poverty reduction policies. This research analyses various dimensions of intergovernmental fiscal relations of Pakistan and its potential impact on poverty reduction outcomes. We argue that fiscal policy making in Pakistan has not only been guided by economic principles. Instead, the influence of various lobbyists (military, politicians, bureaucrats etc.) has been the significant reason in diverting the majority of public sector resources to unproductive sectors, leaving an insufficient share for the social sector. The horizontal and vertical composition of the National Finance Commission (NFC) Award – a resource distribution mechanism between federal and provincial governments – reveals that albeit the expenditure share of provincial governments to total national expenditure has increased however population being the sole criterion for the horizontal resource distribution has given the most populated province (the Punjab) a disproportionate share in resources. This consequently led to a great regional inequality

among provinces and socio-economic backwardness and rampant poverty in less populated provinces.

For empirical investigation we use Ordinary Least Square, Fixed Effects model and Random Effects model, Generalised Method of Moment Instrumental Variable and Tobit model empirical procedures. STATA package is used for empirical investigations. Our empirical analysis covers simple time series as well as panel datasets covering four provinces of Pakistan over the period of 1975 to 2009. The period of 1975 to 2009 is chosen because of the data availability. Data that are required to calculate fiscal decentralisation along with use for other variables are available from 1975. The end of the time series is 2009 because the latest poverty data available are till 2009. However, for the third and last empirical chapter the end point of the time series is 2008 instead of 2009. It is 2008 because the newly devolved local government setup completed its second terms in that year and further elections were suspended till the writing of this thesis.

The empirical analysis's results suggest a strong relationship between fiscal decentralisation and poverty – proxy alternatively by headcount poverty, poverty gap, severity of poverty and Human Development Index. Both rural and urban headcount poverty reduction have statistically significant relationship with fiscal decentralisation. Thus, the postulation that fiscal decentralisation is instrumental in reducing poverty is empirically proven. Along with fiscal decentralisation, pro-poor expenditures, size of government, corruption index, governance, unemployment and inflation have significant impact on poverty outcomes. Moreover our estimation results show a highly significant relationship between the interaction terms and poverty which suggests that proximity of elected government to people boosts the effectiveness of the former in terms of poverty reduction outcomes. In addition, we empirically examine the potential transmission mechanism of the effect of fiscal decentralisation on poverty through education, basic healthcare and agricultural sectors that have been suggested in the literature as basic needs and that have a significant bearing on the well-being of the poor. Our empirical investigation shows fiscal decentralisation to be very effective in enhancing the performance and quality of these sectors.

These findings are important because they suggest, contrary to the traditional public finance theory, that sub-national governments can play an important role in the reduction of poverty.

In addition, in this study a whole section is devoted to elaborate and critically evaluate one of the key political economy concerns in Pakistan: the relation of the latter to one of her federating units, Balochistan. This issue justifies a separate treatment, because unlike other federating units constituting Pakistani federation, Balochistan's case has been entirely different. Prior to the colonial rule on India, Balochistan had been a sovereign state with its functioning institutions, although far from international standard (Harrison, 1981). After the British departure from Indian subcontinent and consequently the formation of two independent states, India and Pakistan, Balochistan who gained its independent status back from British was asked to either remain an independent state or become part of Pakistan on the basis of shared religion and geographical integration. However, the democratically elected parliamentarians of Balochistan unanimously voted against the merger. Nonetheless, Pakistan disregarded the decision of Baloch parliament and invaded Balochistan on 27, March 1948 (History, 2011). Moreover, Balochistan has always been the poorest and least developed of all of Pakistan's provinces. Since the mid-1970s its share of the country's GDP has dropped from 4.9 to less than 3% of in 2000 (Bengali and Sadaqat, 2002). Balochistan has the highest infant and maternal mortality rate, the highest poverty rate, and the lowest literacy rate in Pakistan (Baloch, 2007). The government has often tried to co-opt Balochs with development projects, but none has achieved any measure of success. While economic development usually dominates the rhetoric coming from Islamabad, the larger issue for the Balochs remains resource exploitation (Adeel, 2005). Despite being Pakistan's most abundant province in natural gas, Balochistan has seen little benefit from its gas fields relative to the Sindh and Punjab provinces. This is because a new constitution introduced in 1973 set provincial gas royalties at 12.5%. However, the wellhead price of gas from each province was differentiated, based on per capita provincial income in 1953. While this tremendously disadvantaged Balochistan, the dismissal of the provincial assembly in February 1973 left them without recourse.

This has resulted in a wellhead price five times lower than in Sindh and the Punjab, meaning that Baloch receives less in royalties. Furthermore, the government has returned little of the royalties owed to the province, citing the need to recover operating costs. Consequently, Balochistan is heavily in debt and deep economic problems which resulted into widespread poverty.

Thus, in order to redress the allegedly forced annexation of Baloch land with Pakistan, there have five major insurgencies that consequently caused massive human causalities and physical and infrastructure destruction. But more importantly this phenomenon points to an unpleasant relationship between Balochistan with the federation of Pakistan, which resultantly left a great deal of impact on the political economy of the latter.

Moreover, this thesis also looks at the efficacy of the devolution to the third tier of governments (the local governments) in terms of better public services supply. Here we assert that the economic, political and administrative empowerment of the local governments change the course of public resource allocations in the favour of sub-sectors that potentially augment the well-beings of the people, particularly the poor and disadvantaged. The devolution of power to local governments also provides a platform to enable people in exercising their social and political rights at the grassroots level.

Pakistan launched a widespread Devolution Plan in 2000-01 that promulgated through "Local Government Ordinance."[4] Thus, besides the federal government and its four federating units' fiscal distribution principles, the local governments' autonomy provides a good scenario to see a statistical exploration through a country-wide quantitative analysis, showing, how effective financially empowered district/ local governments have been in reprioritising their social and economic expenditures and poverty alleviation through the provision of access to the basic services. We therefore conduct a panel analysis by comparing the pre and post decentralisation (devolution) quality and quantity of basic public services. The evidence shows that the devolution

[4] The ordinance formulated the responsibilities and authorities of local governments ranging from the functions related to primary healthcare, education, some basic tax collection, land revenue, water supply, sanitation, roads, bridges, flyovers, streets, traffic signals, solid or waste, urban and rural infrastructure, master planning etc. Later on, they empowered to enforce laws and functions assigned under the Police Ordinance 2002.

significantly changes the size and magnitude of social and economic investment. In all provinces, the investment increases in sectors such as in education, healthcare, agriculture, water management, water supply and sanitation, rural development and the civil work. Since these services are strongly associated with local needs, it is reasonable to conclude that the devolution implicitly enhances the living standard of the local communities especially the lower income groups and the impoverished.

The analysis of the devolution to the local government is presented in a separated part (Part IV). The local government system is different from the federal and local governments in Pakistan. The political, economic and fiscal structures of local government differ from the both upper tiers of government in various aspects. In addition, historically the local government system has been markedly different from the provincial governments; since the latter does not enjoy a constitutional mandate, therefore, it has been suspended and subsequently revived many a time. Although, the local government system is an integrated part of the federation of Pakistan and same law of the land applies equally on local government as it is the case with other two tiers, however, structural differences of latter may provide a plausible ground to devote a separate part for its analysis, where the evolution, development and significance of local government system is aligned with the empirical analysis in one chapter. The idea behind such a scheme is that it provides the readers a consistency of the historical background of local government and its empirical plausibility on essential social services delivery and in turns its effectiveness on poverty reduction, which is of course is the theme of this thesis.

The outcomes of this research will help policy designers and international development agencies, and concerned officials about the strengths and weaknesses of fiscal decentralisation in attacking poverty directly through poverty alleviation programmes and indirectly though the provision of access to basic services in Pakistan as well as other developing countries. Further, the study will contribute to academic literature of public finance on the impacts of fiscal decentralisation and poverty alleviation.

1.3 SIGNIFICANT CONTRIBUTIONS

The followings may be the main contributions of this research study to the existing literature

The *first* major contribution is the legislative bargaining model which shows that under the game theory framework, how fiscal decentralisation helps in reducing poverty.

The *second* key contribution of this study is an extensive systematic, robust and vigour empirical analysis of the impact of fiscal decentralisation on poverty reduction outcomes. The empirical examination further shows the indirect impact of fiscal decentralisation on poverty by looking at the key social and economic indicators by focusing on three main sectors: education, healthcare and agriculture.

The *third* contribution of the study is the description of the devolution reform – local government empowerment – and empirical evaluation which shows that how fiscal, economic and political empowerment of local government changes the pattern of investment in those sectors that are more pro-poor.

Fourth, this study critically evaluates the issues of fiscal decentralisation and poverty in Pakistan. Notwithstanding the importance of fiscal decentralisation in the political economy discourse in Pakistan the current literature has not done such a thorough work covering all aspects of fiscal decentralisation and fiscal federalism. In addition, a detail elaboration of poverty in Pakistan conducted in this study is likely to opens up a debate in general, and particularly it helps in understanding whether or not (if yes how) fiscal decentralisation may implied as a policy tool to tackle issues related to poverty.

Fifth, the thesis develops a counter argument to the established believe that since poverty reduction is a redistributive phenomenon, and central government is more effective in undertaking distributive work, therefore, in terms of poverty reduction the latter agency (the central government) is likely to be more effective. However, contrary to this notion, this thesis demonstrates that poverty reduction is not only a redistribution process, rather a whole range of social, economic and political, and institutional mechanism determine the role of each tiers/levels of government in affecting poverty.

This thesis ascertains that considering the accountability, proximity and knowing the needs and preferences of the jurisdictions, the subnational governments are more effective in knowing the poor. Moreover, under the new approach to poverty, where political and socio-economic empowerment of the poor is imperative for them to come out of poverty, and local institutions provide a better platform to the poor to exercise their social and political voice to influence the intended poverty reduction polices.

Sixth, this study constructs a unique set of data which did not exit hitherto. Variables such as 'fiscal decentralisation', 'development expenditure' and the 'index of pro-poor' expenditure among others are the variables which do not have data in Pakistan. So this study takes the first initiative to measure these variables to not only use for this research but makes it available for future research.

Seventh, this study highlights and brings to the attention of the importance and imperativeness of other factors for the success of fiscal decentralisation. The study emphasises that the long term success of fiscal decentralisation as policy tool depends upon many institutional factors such as democracy, accountability, people's participation, rule of law and equal treatment of all ethnic, religious and other groups/nationalities. The study argues that these institutional factors hold the key to determine the success or failure of fiscal decentralisation

1.4 STRUCTURE OF THE THESIS

This thesis is divided into two volumes and four parts. There are two chapters in part one. The chapter one gives the introduction, identifies the research gaps and underlines the contribution of this study. Chapter two deals with various definitions of and approaches to decentralisation and poverty, and supplies a review of relevant literature on fiscal decentralisation and poverty. The same chapter also provides an overview of related literature dealing with the relationship between fiscal decentralisation, healthcare, education and agricultural outcomes.

Part two, dealing with historical background and current issues of Pakistan's political economy, fiscal decentralisation and poverty, has three chapters. The first chapter deals with the issues of political economy of Pakistan. This part suggests an explanation for

the failure of fiscal policy to reflect the social and economic conditions and developmental needs of the country. The same chapter discusses the social sector of Pakistan, concentrating on education and health, to show that how weak socio-economic indicators lead to impede economic growth and cause poverty. It gives explanations of Pakistan-Balochistan (one of the federating units of Pakistan) relations and political economy of the latter that caused immense poverty and deprivation to the province. The following chapter examines political economy of fiscal decentralisation in Pakistan. It offers an explanation of why certain resource distribution criteria between central government and provincial governments as well as among the provincial governments were chosen and their link with the subsequent political consequences. It discusses the dominant role of one unit in the federation and implicitly suggests an explanation of its effects on the social and economic development of other federating units. The third chapter contains an analysis of factors affecting poverty in Pakistan. It also provides a profile and trend of poverty over the years.

Part three, dealing with the interaction of fiscal decentralisation and poverty, is divided into four chapters. The first chapter develops a simple theoretical model discussing implicitly the interaction of fiscal federalism, welfare and poverty under the legislative bargaining framework. The second chapter of part three lays down the empirical methodology and discusses the data sources and estimations techniques. The third and fourth chapters of same part probe into the empirical evidence of the impact of fiscal decentralisation and poverty. These chapters examine the causes and consequences of fiscal decentralisation on various measures of poverty along with other pro-poor sectors: health, education and agriculture.

Part four contains one chapter. The chapter gives an overview of the devolution reforms in Pakistan and discusses its impact on social and economic services provision. Finally, chapter 11 concludes the entire thesis and offers suggestions for further research.

PART I

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

CHAPTER 2

FISCAL DECENTRALISATION AND POVERTY REDUCTION

2.1 INTRODUCTION

In this chapter, we discuss the concept of decentralisation with particular emphasis on fiscal decentralisation and survey the related literature. A parallel review of the definition of poverty, various approaches of poverty and the policy environment that potentially affects poverty are presented with some depth. Dealing separately with these concepts enable us to develop a conceptual framework where the interaction of fiscal decentralisation and poverty is examined directly and through various channels with the help of the available theoretical and empirical literature.

2.2 FISCAL DECENTRALISATION

In 1945 Australia, Canada, Switzerland and the USA were the only functioning federal countries in the world, whereas in 2011 some 20 to 30 countries with 40% of the world's population are federal (Anderson, 2011). 95% of the democratic countries have elected regional or local governments with different level of fiscal, administrative and political decentralisation (World Bnak, 2000). Sub-national governments in some countries (the USA, Canada, Switzerland and India) are more autonomous while in many other countries (Thailand, Spain, Indonesia and Chile) they exercise only a restricted autonomy. Several developing countries have adopted decentralisation as policy strategy to resolve many compelling political and fiscal problems, as well as improving the social and economic services delivery (Bird, 1993).

But what is decentralisation all about? Certainly, it is hard to give a straightforward and precise definition of decentralisation. Fesler (1965) considers that decentralisation is rich with conceptual and empirical significance that reflects the dynamic political and fiscal realities, and incremental changes of a society. Many scholars believe that the problems related to decentralisation are purely conceptual, and ironically in many developing countries it is proposed and implemented without the true meaning and spirit that it commands (Fantini and Gittell, 1973; Rondinelli, 1981). Therefore, decentralisation is used differently in different contexts with distinctions among fiscal decentralisation, political decentralisation, administrative decentralisation, deconcentration, delegation and devolution (Martinez-Vazquez 1998; Litvak and Seddon, 1999).

Fiscal decentralisation is broadly defined as the transfer of fiscal decision making and the authority of planning and management of public functions from central government to subnational governments (regional/provincial/local). It encompasses four important elements that are commonly referred to as the key pillars of fiscal decentralisation: 1. transfers of expenditure responsibility to subnational governments; 2. revenue raising authority to subnational governments; 3. the intergovernmental fiscal transfers; and 4. borrowing power to subnational governments (Bahl, 2006). The advocates of expenditure decentralisation assert that because of the absence of significant spillover effect, the provision of public goods and services by subnational governments increases the efficiency (Oates, 1968 and 1972; Ostrom et al. 1993; Qian and Weingast, 1997) and ensures national unity (Litvack et al., 1998).

The first element of fiscal decentralisation is *expenditure decentralisation*, which is measured as the share of sub-national government expenditure over total public expenditure. It is concerned with the assessment of functional and expenditure responsibilities of each tier of government. It suggests that the public goods and services should be provided at the lowest level of government with required level of capacity to provide these goods and services (Martinez-Vazquez, 1998).

The second pillar of fiscal decentralisation, *revenue decentralisation*, is the process of transferring tax and non-tax sources to local governments. Revenue assignment to local

governments is supported on the grounds that for smooth running and the implementation of essential social and economic services, subnational governments should have stable revenue sources. Moreover, those taxes should be transferred to subnational governments that can easily be administered at local level and provide direct benefits to local people.

The third pillar of fiscal decentralisation is *intergovernmental resource transfers*. Given the mismatch between expenditure and revenue decentralisation, the subnational governments receive transfers from upper tier of government(s). In addition to intergovernmental transfers the subnational governments are usually given the borrowing authority – the fourth pillar of fiscal decentralisation – to finance the budget deficit that may occur when subnational governments' own revenues and intergovernmental transfers are not sufficient to balance the expenditure needs of the local governments.

Under *political decentralisation* subnational governments are given certain political authority within the constitutional framework set by the central government. Political decentralisation largely reflects the power of the subnational governments to allow regional political parties to participate in the electoral process, strengthening the legislature, promoting and protecting the local public interest groups (Litvack and Seddon 1999).

Administrative decentralisation refers to the transfer of administrative authority, particularly over the control of local bureaucracy, implementation of local services provision and financial management to subnational level. Administrative decentralisation aims to empower the subnational governments to deal with their local affairs under a local regulatory framework.

In *deconcentration* the central government grants only limited responsibilities to its regional offices that are run by bureaucrats appointed by and accountable to the central government. On the other hand, *delegation* is much boarder than deconcentration, in which the central government transfers certain decision making and administrative responsibilities to local governments. However, the latter is answerable to central

government having to report to central authorities (Hutchcroft, 2001). Delegation is the common form of decentralisation that is practiced in many countries. The last form of decentralisation is *devolution*, in which the central government transfers decision-making authorities related to administration and finance to local or regional governments (Utomo, 2009). In a way the devolution is a complete and inclusive form of decentralisation under which the subnational governments are autonomous in electing the local governments that in turn raise their own resources, identify and execute projects as per local people's needs (Bird and Vaillancourt, 1998). For this research we focus only on fiscal decentralisation and devolution.

2.3 FISCAL FEDERALISM

Though federalism does not command a unanimous described, however, Wheare's (1953) pioneering work on federalism provides an academic foundation for the later works on the subject. To him federalism is: "…the method of dividing powers so that the general and regional governments are each, within a sphere, co-ordinate and independent" (Wheaere, 1953:10). Thus, federalism is a system of government in which each level - federal government and its federating units in the majority of federations - of government possess a scope of responsibility granted and protected by a written constitution.

The economic and fiscal perspective of federalism, however, may be quite different from the one used in political science. Politics mainly prescribes the legal and administrative responsibility among various levels of government. Economics on the other hand is primarily concerned with the production and allocation of resources among various groups in a given society within a given economic system in order to obtain an optimum welfare level. Thus, the federal structure is more attractive to the economists, because it gives a framework through which the lower tier of governments can ensure social services delivery as per the needs and preferences of local communities in various geographical locations. With this background, Oates' classic definition of economic federalism seems very pertinent in which he states that: "…A public sector with both centralized and decentralized levels of decision-making in which choices made at each

level concerning the provision of public services are determined largely by the demands for those services of the residents of the respective jurisdictions" (Oates, 1973:17).

He further underlines that contrary to political federalism the economic federalism does not concern itself with the matter whether the decision regarding provision of specified goods and services is undertaken by delegated authority or sub-nationally autonomous authority. What is more important in economic federation, however, is that the provision of social services made by either authority is tailored to the needs and preferences of that constituency/jurisdiction or not. Nonetheless, it is not to suggest that constitutional and legal restrictions of federalism, which are the essence of political federalism, are irrelevant to economic federalism. Instead, the legal and constitutional provisions of federalism are important whereby they reflect the local preferences in social services delivery, which is the pivotal concern of economic federalism.

Economic or fiscal federalism implies that apart from small number of countries with stark unitary form of government, the public sector of the majority of the countries around the world is federal, though with various degree. Hence, the key point in fiscal federalism is how much responsibility needs to be exercised by each level of government in providing a certain degree of decision-making power pertaining public functions. This may be ascribed as the central theme of fiscal federalism debate which Oates rightly describes as: "the deterministic on the optimal structure of the public sector in terms of the assignment of decision-making responsibility for specific functions to representatives of the interests of the proper geographical subsets of society" (Oates, 1973:19). Thus with this background of federalism in which a system of governance may be selected in order to gain a certain welfare level by providing social services as per the needs and preferences of the local people, while maintaining a balanced political structure, a legislative bargaining model of fiscal federalism is developed and presented in chapter 5.

2.4 DEFINITIONS AND MEASUREMENTS OF POVERTY

The elimination of poverty occupies a central place for those whose main concern is to ensure economic growth and development as well as social and political freedom of

underdeveloped nations. The act of attacking poverty and its subsequent elimination is unanimously supported by world development community, international financial institutions and many governments in developing countries committed to meet the Millennium Development Goals of the United Nations to halve poverty by 2015 around the world. Yet, there exists a wide disagreement of what poverty *actually* is and how to measure its correct nature, depth and width. Hence, the definition and measurement of poverty and what it constitutes has been a challenging task for poverty researches, donor community and concerned government departments (Saunders, 2004; Retchiffe, 2007).

For some[5] the definition of poverty is the deficiency of required calories intake (mostly 2550 calories intake per adult per day), while for others[6] the definition of poverty goes beyond the caloric norms and hence includes socio-economic dimensions (for example, healthcare, education, freedom and self-esteem) of human life.

The concept of poverty has evolved over the last many decades and widened to incorporate more dimensions in its scope. Till the 1970s the definition of poverty was limited to the material aspect of human life: lack of income and consumption to meet a required level of calorie intake was the dominant concept of this approach, which is dubbed as 'basic need approach'. In its simplest form the poverty with basic need approach was the lack of getting access to the basic means of living and consequently destined to various preventable diseases and pre-mature death.[7] Thereafter, the concept of poverty has evolved to include other dimensions of human life. Thus, during the 1980s and 1990s basic need approach expanded onto human deprivation and included the social, political and cultural characteristics of human life. The latter definition includes socio-economic and political dimensions like education, health, access to social services along with freedom to exercise political choice with a minimum level of income required to meet a socially acceptable standard of living.

Nonetheless, a consensus exists largely among the economists, development practitioners and social researchers that low level of income and consumption should be

[5] See for example, Ravallion (1996); Wodon (1997); Chen and Ravallion (2001); Bowles et al. (2004).
[6] See for instance, UNDP (1990; 1997); Ravi Kanbur (1991); Sen (1993; 1999).
[7] See Moisio (20040; Musick and Robert (2004); Sala-i-Martin (2006) for more information.

the fundamental element to any definition of poverty. The income or consumption poverty approach relies on a "Poverty Line" based on household or individual incomes that suggests the minimum subsistence level of livelihood. The consumption or income approach to poverty is strongly associated with the monetary concept of poverty.

The monetary poverty approach was first introduced by Charles Booth in 1888 in his seminal study on the poor in London, where he divided the dwellers into two broad categories of poverty (Gillie, 1996). Booth further states that:

> By the word 'poor' I mean to describe those who have a sufficiently regular though bare income 'very poor' those who from any cause fall much below this standard. The 'poor' are those whose means may be sufficient, but are barely sufficient, for decent independent life; the 'very poor' those whose means are insufficient for this according to the usual standard of life in this country. My 'poor' may be described as living under a struggle to obtain the necessaries of life and make both ends meet; while the 'very poor' live in a state of chronic want (Charles Booth, 1888: .278).

Another step in understanding the monetary poverty was put forward by Rowntree (1902), which is thought to be the first scientific research on poverty (Ruggeri et al., 2003), wherein he introduced the 'minimum household budget' concept to meet the basket of consumption of basic needs (Williamson and Hyer, 1975). Rowntree's definition of the poverty line is based on a monetary income sufficient to meet adequate calories requirement together with housing and clothing. The poverty line separates poor from non-poor: households or individuals with per capita income or consumption level meeting the benchmark of poverty line are considered non-poor, whereas, those with per capita income or consumption level below the poverty level are poor (Rowntee, 1901).

It is important to mention that the monetary approach focuses more on consumption rather than income of individuals or households. The idea behind this assumption is that the consumption measurement controls the income and other resources (access to credit market included) fluctuations in the short term, hence, makes the consumption pattern smooth for an extended time period. Therefore, compare to the income, consumption information is more useful in understanding the monetary approach of poverty (Deaton, 1997). Atikson and Francois (1982), on the other hand, are of the view that the income approach is a better indicator in understating the minimum rights of a community than consumption approach to poverty.

Issues related to the objectivity and inclusiveness of the monetary approach may be criticised on multiple grounds. For instance, although theoretically it is assumed that both consumption and income approach of monetary poverty consider non-marketed or public goods and services, in practice it excludes the publically provided goods and services (healthcare, education, sanitation etc.) and includes only the private income or consumption of individuals. Therefore, it may be maintained that in the policy arena the monetary approach may tend to be biased against public service provision and instead favours the private income.

Poverty can be seen in absolute as well as in relative terms. The absolute poverty, as succinctly discussed by Booth (1888), is characterised by the failure in meeting a minimum income and consumption level or socially acceptable living standard set through the poverty line. It is the case of establishing a line at a given income level at which the individuals or households can attain a basket of essential goods and services. An absolute poverty line may be described as the critical benchmark differentiating the poor from the non-poor based on an efficient wage rate. The efficient wage rate concept is applied and critically evaluated by Dasgupta (1993) and Sukhatme (1981) in their respective studies. However, the argument of efficiency in wages is contended on the premise of the ambiguous nature and scope of its definition. For instance, it is still debatable whether the elderly and disable people, who are not in workforce, should be included into the wage efficiency argument of poverty or not.

Nevertheless, Ravallion's definition of absolute poverty line is considered to be more precise and translucent, in which he explains it as: "Rather an absolute poverty line is one which is fixed in terms of living standards, and fixed over the entire domain of the poverty comparisons" (Ravallion, 1992:25).

Thus, it commands a simple and straightforward mechanism of understand the poverty: individuals or households lacking the adequate calorie[8] intakes fall below the threshold

[8] Yet the specification of minimum calorie requirement seems problematic. That is because the calorie requirement not only differ by age groups – adults need more calories than children –, but it varies by sex, geographic condition and working environment. Albeit the available data provide some of the various and assigned particular caloric norm to that specific group, however, it fails to capture many potential determinants of poverty.

of the poverty line and so considered to be poor. The same logic has been applied by various organisations and government departments including the World Bank (1990[9]) and the UNDP (2000) in their respective poverty definition of a community based on average $1 or $1.25 daily earning per person.

However, it is maintained that the absolute poverty line does not compare the income of the individuals around them, and therefore, fails to provide a clear picture in understanding the living standard in relative terms. In addition to this, the absolute poverty line is criticised for being externally determined concept that may not reflect the indigenous characteristics of the poor within a community. That is to say that: "..the absolute poverty line has no interpretation of its own. Such absolute poverty measures which are 'borrowed' from a particular country and/or year, and frozen in real term, will subsequently be called 'quasi-absolute" (Niemietz (2011: 43).

While relative poverty, in contrast to absolute, is the comparison of the bottom fifth income strata of population to its upper counterpart. In other words, it relates to the level of income distribution of a society that compares the income of bottom docile to the mean income of a society. Ravallion (1993) suggests that the relative poverty level of society is higher than the average standard of living. That is, an individual or household is said to be relatively poor if his/her income falls short of the mean income of the society. Niemitz states that: *"*...relative poverty is a fixed fraction of the central tendency of the income distribution. Thus households are considered poor if their income is far below those of typical income of a particular time and place" (Niemitz, 2011: 41).

Since the relative poverty refers to the gap between the average income of the society and the income of an individual or household, therefore, relative poverty approach helps to understand the level of income inequality prevailing in that society.

Relative poverty does not necessarily follow the absolute poverty trends (Jamal, 2002). For instance, if the gap between the upper and lower class of a society shrinks down at

[9] World Bank developed a poverty line based on I dollar a day on 1985 purchasing power parity prices, and used it subsequently to analyse poverty situation within countries and compare poverty profile of various countries.

the cost of declining standard of material well-being of the former, while relative poverty may decline, the absolute poverty increases. Unlike the absolute poverty line, the relative poverty line changes overtime in order to adjust with the changing nature of the living standard and average income level of the society.

It is worth pointing out that while the relative poverty approach is more useful in developed countries where the absolute poverty is not of paramount importance of policy debate, in developing countries on the contrary greater attention is given to the absolute poverty. That is because in the latter the acute problems related to poverty – the hunger, starvation, malnutrition, homelessness etc. – need to be arrested first before moving to place any emphasis on reducing income inequality.

Although the headcount poverty ratio (both absolute and relative poverty) is a commonly used method in poverty analysis, it has been criticised for failing to take into account the other serious issues of poverty i.e. the depth and severity of poverty among the poor. For example, a policy intervention that seeks to make the poorest of the poor better off, but cannot raise them above the poverty line, would appear to be failing in reducing the poverty in absolute terms. Yet perceiving poverty solely on absolute terms such policy measures may seem unsuccessful. However, looking at the depth and severity of poverty, it indicates that such policy interventions are effective in reducing the average poverty level, without changing the actual number of the poor below the poverty line. Therefore, to understand a broader nature of poverty and the effectiveness of poverty reduction measure, it is essential to know the poverty gap and the severity of poverty alongside headcount poverty ratio.

Poverty Gap Index (PGI) is used to measure the depth of the poverty within a community. It calculates the average gap of individuals or households from the primarily determined/set poverty line. In other words, the PGI is the distance of the mean income of the poor to the poverty line. The PGI for the non-poor is zero and a population mean is taken from the entire population (Chen and Ravallion, 2001a; 2001b). PGI measurement is thought to be an effective instrument for policy planners intending to reduce/alleviate poverty through targeted transfers. It equips them with the prior knowledge of how much resources need to be transferred in order to bring the poor

out of the poverty line. Thus, through poverty gap measurements one can understand how far the poor are from the poverty line and how much transfers are required to lift them out of poverty. Therefore, it can be argued that PGI enables the policy planners to dent poverty more efficiently, provided that the transfer mechanism is free of distortion and targeted only to the desired community. However, PGI measure is also not without its limitations. For example, although PGI measures the average depth of poverty, it fails to describe how much inequality exists among the poor: the severity of poverty.

The *severity of poverty* or the Index of Square of Poverty Gap (ISPG) adds up the squared average income of the poor, and then measures its distance from the poverty threshold. In other words it measures the level of living standard of the poor.[10] The severity of poverty is the square of PGI, and gives more weight to the poorest among the poor; therefore, it reveals the magnitude of severity of poverty among the poor. ISPG is one of the practicable instruments through which unequal distribution of income amongst the poor is measured. In addition, it plays a vital role in identifying the chronic poverty, therein the severity and duration of poverty remains for a long period. Hence, it provides a clearer picture to the policy actions aiming to target the most deserving and ultra-poor: those who are too poor to get any advantage from general public policies in one hand and are incapable of taking part in any socio-economic activity generated by the market-driven mechanism on the other. Moreover, together with the poverty gap and the expenditure inequality among the poor, this index also reflects some of other dimensions of poverty related to human deprivation (we shall discuss them shortly).

In short, the headcount ratio, the poverty gap and the severity of poverty are summed up concisely under the Foster Greer and Thorbecke (FGT) Index of Poverty. FGT (1984) propose an Index (P_a) that captures the fundamental elements that should by measured by poverty indices. Such as:

1. The incidence of poverty: the number of people falling below a predetermined poverty line.

[10] For more information on poverty measurements, please see Coudouel et al. (2002).

2. The intensity of poverty: this measures the depth or gap of poverty - how far the poor are from the poverty line.
3. The severity of poverty: this reflects the inequality among the poor.

FST index is best described algebraically in following formula:

$$P_a = \frac{1}{n}\sum_{i=1}^{n}\left(\frac{z - y_i}{z}\right)^{\alpha} \qquad (2.1)$$

Where (y_i) represents the income of (i) individual, (q) is the number of poor out of total population (n) and (α) is the aversion for poverty. As (α) increases, more and more weight is given to the poorest of the poor.

When α = 0, P_a yields the headcount poverty measure (H). And when α = 1, P_a becomes the poverty gap. Similarly, when α = 2, P_a generates the square of poverty gap or the severity of poverty.

Over the last two decades poverty is studied and analysed with much broader perspective. This new thinking of poverty evolved many approaches that are briefly explicated in subsequent pages.

A multifaceted approach to poverty is expounded by the Human Development Index (HDI). The HDI is developed by the United Nations Development Programme (UNDP) in early 1990s with the underlining theme that the human development and progress cannot be realised only by enhancing the GDP per capita. Instead, the human development needs to be measured through a composite index of three dimensions of human life. The human development report (1990) of the UNDP for the first time brought the HDI concept to the light by stating that human development "is much more than just the expression of income and wealth" (UNDP, 1990:10). The HDI is the composite index of three broad dimensions, which are reported as under.[11]

1. A long and healthy life, measured by life expectancy at birth.

[11] For more explanation of HDI see UNDP report (1990).

2. Being educated or knowledgeable, measured by educational attainment, the adult literacy rate – with two third weights – and the combined primary, secondary and tertiary gross enrollment ratio – with one third weight.
3. A decent and socially acceptable living standard, captured by the GDP per capita in Purchasing Power Parity (PPP) dollar terms.

Each index of the HDI needs to be calculated separately before constructing the HDI itself. The HDI is simply obtained as the average of the three indices, such as;

$$\text{HDI} = \frac{1}{3}\,(\text{life expectancy index}) + \frac{1}{3}\,(\text{education index}) + \frac{1}{3}\,(\text{Gross Domestic Product Per Capita index}) \quad (2.2)$$

Hence, HDI provides a broader framework to assess the human development's three highly important socio-economic dimensions of human life. For example, education is not only crucial for human development by itself; it is also instrumental in improving the healthcare, creating awareness and imparting empowerment to the people.

However, skeptics criticise the Index for being incomprehensive measurement of human well-being. For instance, the Index fails to explain the social and political rights of individuals in one hand; it ignores the income inequality on the other. For more discussion with related strengths and potential weakness of the HDI (please see, Anan, 1992; Foster et al., 2005; and Grimm, et al., 2008; Jenkins, 2009; Kenneth and Stephan, 2012).

In addition to the HDI another multifaceted approach to poverty is Amartya Sen's concept of capabilities and functioning. Sen's concept, a non-monetary approach to poverty, refers to the expansion and development of human capabilities against the traditional welfare economics approach of opulence and utility maximization derived from a monetary income or consumption (Sen, 1999). His capability approach holds that the actual or real outcome of well-being does not come from a money income; rather, it can be derived in terms of real freedom of life. The concept of 'functioning' relates to the activities a person is capable of doing and being in achieving certain material well-being. However, the central principle of 'capabilities' is the human freedom to attain

such functioning (Sen, 1999:73-75).[12] Therefore, the functioning concept refers to the achievement of a person, whereas capability concept seeks to materialise certain functions. These functions include, being healthy and literate; to be the part of active and productive labour force; and to participate in socio-cultural and political affairs. In other words, the well-being of a person should be viewed according to what s/he *can* do rather than what *actually* they do. Thus, according to this approach poverty is viewed in terms of deficiency in human rights (be social, economic, political or legal rights) and capability to exercise his functions to achieve material well-being and these rights in a given society.

Sen's criticism to the traditional approach to poverty on the ground that it does not have enough information and scope to encompass all spheres of human life is also endorsed by other (for example, Wilson and Ramphele, 1989; Clark and Andrew, 1996; Moore et al., 1998; Saith, 2001; Alkire, 2002; Clark, 2003). Sen postulates that neither utility maximisation nor the state of being affluent captures the multi-dimensional aspect of human life. The utility being mental and satiated satisfactions while the latter is materialistic well-being that fails to value the socio-economic and political well-being of people.

A central issue facing the capabilities and functioning approach of poverty, is the problem of its translation into something measureable: i.e. how to measure and quantify the capability. Furthermore, it fails to provide a list of culturally and historically insensitive elements to identify the capabilities of human beings[13] (Nussbaum, 2000a; 2000b). However, Nussbaum (2000a) notwithstanding criticising Sen's approach to poverty, argues that yet an 'overlapping consensus' exists among communities on the very question of human well-being (for example, life, health, emotion, affiliations, senses etc.) thereby it needs to be viewed on an international basis.

A strong criticism on traditional poverty assessments – be it monetary/basic need approach or capability approach – is because of its nature of being somewhat "externally imposed" and thereby fails to understand the perceptions and views of the poor

[12] Interested readers are referred to Sen (1984; 1993; 1999; 2005) for a more discussion on this issue.
[13] It is worth mentioning that Sen does not explain what capabilities are and how to define them.

themselves. To its response, Chambers (1994; 1995; 1998; 2001) introduces the participatory approach by arguing that: "The realities of poor people are local, complex, diverse and dynamic. Income-poverty, though important, is only one aspect of deprivation. Participatory appraisal confirms many dimensions and criteria of disadvantage, ill-being and well-being as people experience them. In addition to poverty, these include social inferiority, isolation, physical weakness, vulnerability, seasonal deprivation, powerlessness and humiliation" (Chambers, 1995:173).

The central tenet of this approach is that community development and poverty strategy is more useful if it involves the poor in their policy decisions. Initiatives that are viewed important to the poor and instrumental in addressing their poverty related issues ought to be incorporated in institutional mechanisms and poverty reduction strategies. Thus, the participation of the poor in policy mechanism provides four broader elements that underline the vitality of any programme aims to targeting the poor. First, it creates a sense of ownership of the poor towards the programmes and policies designed and devoted in mitigating their own poverty (Duraiappah et al., 2005). Second, once the poor and the marginalised community are included in policy decisions and their issues are part of the policy agenda, which the poor value the most, the effectiveness of such policies would inherently enhance. Third, it increases the poor and local people's capacity to engage and effectively influence the direction of poverty alleviation programmes. Finally, it not only ensures the participation of the poor in their matters but also empowers the poor and makes them autonomous in dealing with their issues. In addition to this, it also capitalises the institutions with the knowledge and understanding of the causes of poverty through the eyes of the poor.

It is relevant to mention that the importance of participatory approach increased when it was endorsed and adopted by the international financial institutions, particularly the World Bank[14] and the IMF, in their poverty assessments that later institutionalised the approach in action.

[14] For more discussion please refer to World Development Report (2000) "Voice of the Poor", and Poverty Reduction Strategy Papers (PRSPs) of various countries.

Skeptics (d de Cunha et al., 1997; Howard and Milward, 1997 among others) however point out certain shortcomings and difficulties concerning with the participatory approach. First, the multidimensional characteristic of participatory approach makes its measurement difficult and complex. Second, due to the heterogeneous nature of the poor in terms of taste, priority, and perception of their status of poverty, it becomes challenging for the policy makers to decide who among community members should be heard of. de Cunha et al. (1997) are of the view that since the participatory approach places the social relation at central importance, and yet the latter gives preferences to more powerful amongst the community. Therefore, it is highly likely that the poor remain misrepresented within the community. Furthermore, normally the marginalised people of the community are fearful to challenge the 'local elite', due to the fact that the latter can use their social cleavages to intimidate the former and suppress their opinions. Likewise, very often in commune life – particularly in rural areas – the ultra-poor are not only excluded from the communal structure, they are also considered *untouchable,* hence, not allowed exercising any social input in community affairs (Howard and Milward, 1997). Thus, it may be argued that even though the central focus of the participatory approach of poverty is the community participation and inclusiveness, yet the exclusion of many of the poor from engaging in these social and economic affairs creates similar difficulties as we saw in Sen's capability approach as well as monetary approach.

Another key approach to poverty that gathered a considerable attention is the social exclusion approach. This approach focuses on the relative deprivation and marginalisation of people. This concept gained particular attention in developed countries to arrest the threat of social exclusion of the weaker and dispossessed communities in political participation.[15] According to the European Union, the social exclusion refers to a situation in which individuals or households are not included in the process of social life. In other words, they are fully or partially excluded from participating in socio-economic activities of the society (European Foundation, 1995).

[15] For more information please see Micklewright (2002; Ruggeri (2005).

Atkinson (1998) points out the *relativity*, *dynamics* and *agency* as central elements of social exclusion concept of poverty. He argues that social phenomenon relates to a particular society (of being *relative*), and poor are excluded from the social life due to certain acts of the agents (is the characteristic of *agency*). Moreover, both present social circumstances and future events have potential to affect the social exclusion of the poor (is the characteristic of *dynamism*).

The review of various approaches to poverty presented above highlights that there exists no unique way of defining and measuring poverty. None of the approaches is fully inclusive and therefore contains some levels of arbitrariness and subjectivity. The monetary approach albeit has been criticised for being most inconsistent empirically, but equally it is the most widely used method for defining and measuring poverty both in theoretical and empirical research compare to other approaches. The capability approach, in contrast, is less arbitrary when it defines poverty which is crucial for human development and applies equally to all and focuses on the provision of public goods. Other approaches also involve a large element of construction in their respective identification and measurement of poverty. Each approach possesses its own strengths and shortcoming, therefore, have different impacts for targeting and policy implications. Although inherently overlapping, each approach to poverty points to different policy outcomes. Hence, policy implications with different aims of targeting may choose the right approach appropriate to their goals. As mentioned earlier that monetary approach, despite being more subjective when compared to its counterparts, is largely used. The common reason, among others, being that it is easy to identify and measure poverty using this approach. Following the trend, the same approach, along with the UNDP's adopted HDI approach, is used for our empirical analysis in poverty.

2.5 POTENTIAL IMPACT OF FISCAL DECENTRALISATION ON POVERTY

Observing the impact of fiscal decentralisation on poverty and establishing a direct or indirect link (either positive or negative) between these two variables has been and still remains a challenge for both public and development economists, respectively. Fiscal decentralisation and federalism should promote human development that is explained by

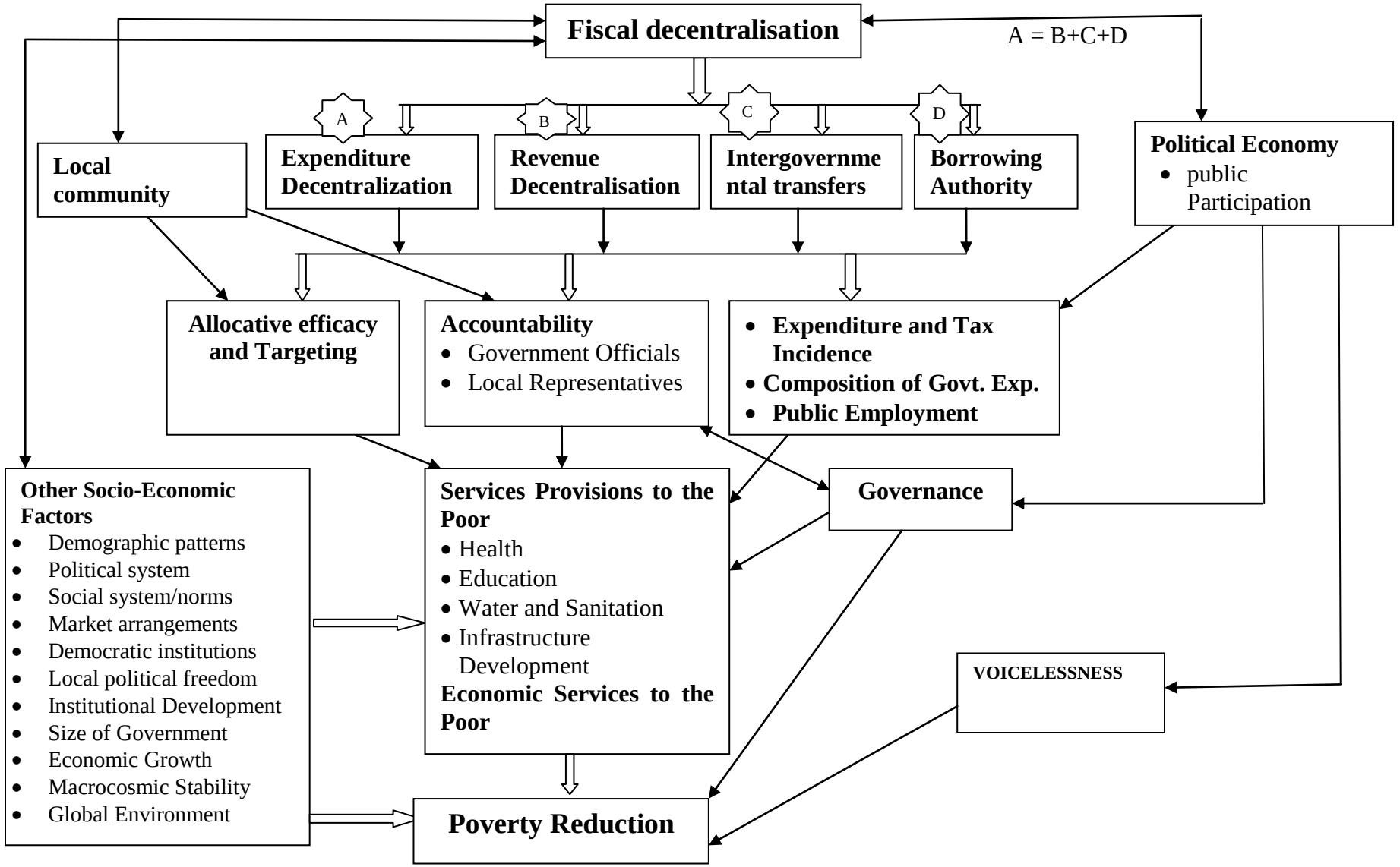
the growth and expansion of people's capabilities and range of choices. Fiscal decentralisation contributes to poverty reduction and human development through positive influence on participation, efficiency, accountability, governance and other such channels that are presented in figure 1.

The interaction of fiscal decentralisation and poverty may take place through multiple and complex channels. Figure 1 presents a schematic framework that maps the mechanisms through which fiscal decentralisation is expected to have positive impact on poverty reduction, improved efficiency and better targeting of social and economic services. Public services that potentially affect the living standard of the poor include health, education, water and sanitation, local infrastructure, agriculture and irrigation, and rural development. Poverty is also indirectly influenced by other socioeconomic factors, which determine the implementation of fiscal decentralisation and in turn are influenced by the latter. These factors include macroeconomic stability, social and political system of the country, market arrangement, institutional setting, democratisation and demographic configurations. Thus, fiscal decentralisation plausibly affects poverty through certain macroeconomic variables, social elements and institutional arrangements.

As noted above, fiscal decentralisation operates under the combination of its four elements of expenditure decentralisation, revenue decentralisation, intergovernmental fiscal transfers and borrowing authority. Expenditure decentralisation should be equal to the subnational governments' own resource through taxes, intergovernmental transfers and the borrowings. Fiscal decentralisation system basically runs under the combination of these four elements and each of them has its own impact on poverty directly and indirectly through other factors. Oates (1972), and Sepulveda and Martinez-Vazquez (2011) exhibit that fiscal decentralisation improves social welfare by focusing on public expenditures. Considering the proximity to local people and being accountable to them, the subnational governments' expenditure decisions are likely to be in line with preferences of the people, which, therefore, generate efficiency gain for the entire society.

Looking at the fiscal decentralisation's impact on poverty within political economy framework, one may notice that fiscal decentralisation is likely to increase the participation of the poor, promotes the culture of accountability and governance, and enhances the chances of the selection of pro-poor investment. The engagement of the poor in selection and implementation and monitoring of public services makes the subnational governments more accountable that in turn augments the efficiency of public service delivery. Hence, a more decentralised mechanism and framework helps to identify and implement projects that are efficient in terms of costs and benefits as well as having the potential to reach to poor and needy.

Figure **2.1: Conceptual Framework of the Potential Impact of Fiscal Decentralisation on Poverty**



2.5.1 FISCAL DECENTRALISATION AND POVERTY: THEORETICAL PRINCIPLES

In the literature of public economics decentralisation or more specifically the fiscal decentralisation is not a new issue. Rather it goes back to the fiftieth decade of the last century when Teibout (1956) and Musgrave (1959) presented their respective pioneering works. This literature has a range of researches that involve the structure of the public sector and types of government that are best suited to fulfill these functions. Since that, economists and policy makers theorised the issues of fiscal decentralisation to assess its various impacts on economics and governance of a country and the well-being of her people.

The current theoretical literature of fiscal decentralisation may be divided into three major areas. First strand presented by Musgrave (1959); Oates (1972); Brennan and Buchanan (1980), among others, examines the optimal division of powers shared by national and subnational[16] governments and their roles in public sector expenditure. The main outcome of this research is best concluded in Oates (1972) "Decentralisation Theorem". The theorem demonstrates that under certain conditions (for example, heterogeneity of taste and no spillovers effects) the subnational governments are more efficient in providing the Praeto-efficient levels of services to their constituents compare to a central government that provides a uniform level of good across the jurisdictions. One of supplementary arguments of the decentralisation theorem is that the advantage of decentralisation is strongly correlated with the variance in demand of public goods (Panizza, 1999).

The second strand of the literature studies the benefits of fiscal decentralisation which come as a result of the competition across jurisdictions. Tiebout (1956); Whiteman (1987); Donahue (1997); Kolllman et al. (1997) and others are the major contributors to this theory. Tiebout (1956) examines the horizontal competitions among the jurisdictions, argues how citizens with options of multiple jurisdictions to reside, "vote in their feet", and dwell in jurisdictions where the fiscal policies best suited their preferences. Buchanan (1980) further studies the vertical competitions

[16] Subnational governments cover provincial, state, regional and local governments.

among various types of government for controlling and managing the size of their budgets.

The final and perhaps the most effective strand of this literature discusses as fiscal federalism and decentralisation in the light of political economy. Brown and Oates (1987); Seabright (1996); Bird et al. (1998); Alesina at al. (1999); Lockwood (2002); Besely and Coate (2003); Faguet (2004); Shaw (2004); Bardhan and Mookherjee (2005); Galasso and Ravallion (2005) and others are the main contributors to this literature. We shall discuss the entire set of the literature in turn next.

In local public finance literature a remarkable groundbreaking transition took place in the year of 1956. This was when Tiebout (1956) presented his famous free mobility model. He proposes that the households are perfectly mobile and select a locality for residence based on their demand for local public services. Hence free mobility of household is the central themes of his theory. However, the assumption of households' free mobility across jurisdictions seems unrealistic in the context of developing countries in which ethnicity, religion, castes among other factors are some major impediments to migration. In addition to this, high cost of transportation, that may incur in case of migrating from one locality to an another, as well as the illiquid nature of housing market – households may not easily sell their houses in old locality and buy new ones on competitive market prices. In the presence of these and other such constraints perfect mobility assumption of Teibout model is hard to maintain. Thus, evidence is very limited, even within advanced countries, to support Teibout's voting with the feet model (Conning and Michael, 2002). Nonetheless, Weingast (1995) supports Teibout's argument of 'free mobility' and maintains that within the framework of "market preserving federalism" fiscal decentralisation makes the market efficient. This efficiency, in his view, is achieved in a public sector where decentralised governments face 'hard budget constraints' and free mobility of economic units across subnational governments.

Fiscal decentralisation is considered by its proponents as the mechanism to enhance the provision of public goods at the local level. For instance, Musgrave (1959) in his profound theory on public finance assigns 'resource allocation' function to government, along with macroeconomic stability and income distribution. He suggests that resource allocation function may be assigned to sub-national

governments to allow the latter to reflect the preferences of their populaces. Extending the same line of argument, Oates (1972) in his "Decentralisation Theorem" believes that public goods provision under decentralised government is welfare enhancing with the reflection of tastes and preferences of local population compare to its central counterpart with uniform level of provision, or in his words "one size fits for all" across all districts and jurisdictions. He further argues that outputs at the district level are determined to maximise the welfare level of that particular district and, therefore, enhance the overall economic efficiency. This argument is based on the claim that local government due to its proximity to local people is better able to cope with local preferences.

However, he is equally aware of the disadvantages, which may emanate from decentralisation in terms of spillover effects. That is, decentralised system of governance tends to ignore the advantages (disadvantages) of spilling over to the neighbouring jurisdiction(s). In the presence of spillover, local public goods may be under-provided. Thus, his theorem proposes a trade-off between spillovers across the jurisdictions and extents of the heterogeneity in preferences among various localities. In case of overwhelming spillovers, central government would achieve some economies of scale in production.

Shaw (2004), surveys the fiscal decentralisation developments and constraints in both developing and transition countries worldwide, demonstrates that the success of decentralisation largely depends upon citizens' participation in the decision-making process. The theme of his study is that the impact of fiscal decentralisation is blurred unless the democratic rights of localities are evolved and elected representatives are accountable to their voters.

Literature with political economy approach considers a great potential for the decentralised form of government for the provision of local public goods. Studies that are surveyed in great detail below cogitate that local government's representatives being more accountable and less corrupt, perform much better in public service delivery than a distant and less accountable central government (Arzaghi and Henderson, 2005).

Besley and Coate's (2003) proposed model provides an insight of the trade-off between centralised and decentralised form of government in the provision of local public goods. In centralisation the local governments may need to share equally the cost of the public goods, which may cause a conflict among the localities. That is because it is very likely that some localities get excessive spending at the cost of others. This would cause *misallocation* of funds and *uncertainty* amongst the jurisdictions regarding the nature of the fund which they expect to get from the central authority. Their analysis, similar to Oates (1972), largely depends upon preference level of the citizens and the degree of spillover in determining which system of governance is better suited for public service provisions: more is the level of heterogeneity less desirable is the centralisation. They go on to add that centralisation with the minimum coalition and non-cooperative arrangement is preferred if heterogeneity is high: districts out of coalition would reap the public spending. However, if centralisation runs with 'cooperative legislature', the policy outcome will maximise the joint outcomes of the representatives that generates the Nash Bargaining between two representatives with equal weights.

However, there exists a major caveat in their model. While describing the political rules of the model they assume that under the decentralisation the elected representatives maximise their *own* utilities rather than their voters, which totally contrasts to the conventional theory of decentralisation wherein the decentralised government considers public preferences. Furthermore, the model assumes under centralisation the government representatives are *randomly drawn* from the already elected representatives from the localities that are hard to happen in actuality.

Seabright's (1996) study compares allocations of powers to various tiers of governments in order to motivate them to function as per the wishes of citizens. His "incentive effect" accountability model shows that centralisation in spite of having benefits in policy coordination in the public good provision, has a significant cost in terms of diminished accountability. The lack of accountability, therefore, hampers the probability that welfare of the given region will ensure that the incumbent is re-elected. To him decentralisation is capable of improving the accountability of the governments to its citizens, even preference differences between localities may not

exist. He mentions that redistributive policies under centralisation are distorted, because it increases the externalities.

An interesting issue raised in the Seabright model is the choice of system of governance in which the incumbents may entirely be different from their voters. Especially in developing countries, people's representatives usually hold decisions regarding centralisation and decentralisation in line to pursue their own vested interest[17]: far remote from the notion that they cater to welfare maximisation of the citizens. Nevertheless, the model ignores the fiscal rules that ought to be an imperative component of any political economy based framework. That is, it does not discuss the distributions and compositions of tax revenues: whether it should entirely be the responsibility of central, regional or local governments to collect the taxes and distribute them under what formulae.

An important point raised in the decentralisation literature is the existence and prevalence of "elite capture". Theorists believe that elite capture makes the fiscal decentralisation ineffective in poverty alleviation, because it may enhance the strength of local elite to usurp the rights of the poor (Dellinger, 1994; Krishna, 2003). Bardhan and Mookherjee's (2005) theoretical framework in this regard provides a fine insight to understand more of the elite capture phenomenon over the antipoverty programme to local governments. They propose that in the absence of transparent electoral process, the lack of political awareness among the poor, and the presence of strong and rich lobbies to influence political parties and representatives through their finances, the decentralised anti-poverty programmes become very prone to elite capture.

The scale of capture is high in those locality or jurisdiction where the incidence of poverty is higher compare to the neighbouring jurisdictions. This happens because in poor jurisdictions people have less political awareness and incentives to hold the representatives accountable. Bardhan and Mookherjee (2005) further highlight that under centralisation, given the "bureaucratic corruption" the poor may receive better allocation provided that aggregate supply is greater than the black market demand, which comes from the rich. Thus, 'elite capture' and 'bureaucratic corruption'

[17] This is similar to the assumption of Besley and Coate (2003) political economy where the utility maximisation is the key to decentralization model.

depend largely on the incidence and severity of poverty, and the scale of black market in the economy. However, the model proposes, though for simplicity, some unrealistic assumptions which are hard to exist in the real world. For instance, it seems unrealistic to assume that the poor are entirely out of elections process in a democratic setup. Although the poor may be misled while casting their votes, but it is true that in all democratic system based on adult franchise the poor and the rich have the equal voting power. Similarly, the model posits that centrally appointed bureaucrats – who are responsible for running and monitoring the anti-poverty programmes at the local levels – are not accountable to any authority.[18]

Unlike Bardhan and Mookherjee (2005), Galasso and Ravallion (2005) do not find elite capture in anti-poverty programmes in a decentralised setting. They model and assess the outcomes of such programmes under decentralisation and test the same on Bangladesh's Food for Education programme.[19] It is shown that the effectiveness of such programme depends largely on its incidence and magnitude of poverty in the targeted area. They identify various factors such as inequality, remoteness of locality from centre, poor intuitional setup in the village, where the programmes are launched, and skewed distribution of land potentially make the programme less targeted to the poor.

The consequence of decentralisation on poverty in a country level was conducted by Faguet (2004). His study shows that how decentralisation affects the pattern of investments on social sectors and human capital formations. He applied his simple model on a dataset from Bolivia during 1992-96, which demonstrates that the poorest provinces would invest greater amounts of the devolved funds on high priority projects which meet the basic needs of local people. His argument supports the common assertion[20] that the fiscal decentralisation changes the pattern of public expenditures to the provision of services that are related to poverty alleviation.

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[18] It is true that the bureaucrats who are appointed and posted by central government at the local levels, however, they have to follow certain rules that make them accountable to the central government and its elected representatives if not to local people directly.

[19] The programme was launched by the Government of Bangladesh in 1993 to provide free monthly ration to poor families provided that their kids attend primary school. This programme was aimed to increase literacy rate and quality of education.

[20] For example (Crook, 2003) shows that fiscal decentralisation may change the composition of public expenditure if the subnational government choices in term of types and size of public services provision are different from the central government choices.

Conventional literature on fiscal decentralisation justifies local/regional government based on the notion of *heterogeneity* and *asymmetric information*. However, Rubinchik-Pessach (2005) shows that even asymmetries are removed; the existence of local government is still justified. That is because the central objective of the local governance system is to improve welfare level of local people through efficient service delivery. His complex model, though very peculiar, assumes three regions, with each one having a unity cost. Hence, every region is ready to pay *R* amount as average cost with a uniform tax bill 'α' and pivotal voters, '*m*' in order to approve a project, *'b'*. The utilitarian welfare that is drawn from a project, therefore, is: $w(b) = \sum_{i=1}^{R}(b_i - R)$.

Under centralisation the set of projects that generates enough benefits to the voters is, $M(\alpha, m)$, M is the set of projects which are accepted at the equilibrium, whereas under decentralisation the projects set includes ones with high extreme benefit to cover the cost R. $M(R, 1) + M(\alpha, m)$.

Thus, adding local government as a tier to the system of governance adds another project $[M(R, 1)]$ to the accepted set of projects. Rubinchik-Pessach's (2005) assertion is somewhat contrary to the traditional view of federalism, in which the decentralisation is not welfare-improving if spillover between jurisdictions exists and preferences of the people are homogenous across the country. Rubinchik-Pessach, on the other hand demonstrates that:

> ..it is the prevalence valuable global issues along with the projects of local importance that generates the need for local governments. The hierarchy induces specialisation of each tier on the corresponding issues, thus, enhancing the overall welfare, which can justify possible costs associated with the additional level of government. Thus, the main argument does not stem from an assumed deficiency of a central government, but rather, rests on the idea of specialisation (Rubinchik-Pessach, 2005: 243).

Lockwood (2002) investigates the fiscal policy choice between centralisation and decentralisation in a particular political economy arrangement. Within centralisation, the decisions about project selection and implementation are undertaken through national legislative rules. In legislative bargaining, in which the delegates comprising regional representatives, vote for the projects that are regional specific. Projects outcomes in this case are not sufficient "because the choice of projects is insufficiently sensitive to with-in region benefits" (Lockwood, 2002:316). His

analysis somehow supports Oates (1972) intuition that in case of weak externalities and heterogeneity, decentralisation is an efficient arrangement for public goods and services delivery. Lockwood's theory is best described in the following equations: $W^d = \sum_{j\in N}[max(b_i - c_i, 0) - X_i^c(b_i - c_i)] + \sum_{i\in N}\left(\sum_{i\in D} e_{ij} - \sum_{j\in c} e_{ij}\right)$.

W^d is the welfare under decentralisation, b_i is the project in locality i, and c_i presents cost incurs to the the citizens of locality i. X_i^c is the private consumption. Thus, the gain in decentralisation is higher provided that the spillover (e_{ij}) is not present. The first term supports the argument that decentralisation is responsive to subnational level benefits from projects. The second critical point is the project spillovers, (e_{ij}), that may be positive or negative. Fiscal decentralisation is not efficient if the project has externality effects. On the contrary fiscal decentralisation may be more beneficial than centralisation as project externalities are partially internalised by legislative process.

Brown and Oates (1987) examine the role of various tiers of government in assisting the poor. Assuming utility interdependence of poor and non-poor, they show how the level of poor assistance programmes varies with the extent of mobility of the poor under the decentralisation and centralisation support mechanism. The study examines the matters of poor assistance in a federal system of governance with the assumption of a perfect mobility. Since the relief programme is to be financed through non-poor tax, therefore, the utility[21], of the non-poor plays a vital role.

In locality i the utility of non-poor depends on his own income and post transfer income of the poor, while the poor's utility depends on his post transfer income, $U_p^i = U_p^i(\bar{Y}_p^i)$. Thus, it implies that, $\frac{\partial U_N^i}{\partial \bar{Y}_N^i} = \frac{1}{P^i/_{N^i}} \frac{\partial U_N^i}{\partial \bar{Y}_P^i}$. Non-poor keeps transferring until marginal utility of a unit of currency to him is equal to marginal utility of same unit given to the poor.

More poor is less desirable, but as free mobility assumption holds, a programme for the poor follows more immigration from other jurisdiction, therefore, $\frac{dT}{d\eta} < 0$. η is

[21] $U_N^i = U_N^i(\bar{Y}_N^i, \bar{Y}_P^i)$

the elasticity of migration function. Thus, bigger the fear of immigration the lower would be the transfers' response by the non-poor of that jurisdiction.

Supporting the same notion, Wildasin (1991) argues that such decentralised system of poor assistance produces fiscal externalities. Supporting the same argument, Ladd and Doolittle (1982) show that poor relief assistance should be assumed by central government in order to avoid externality.

Focusing on the political effects instead of tax competition and mobility of tax bases of centralisation, Persson and Tabellini (1994) deal with a positive question of federalism: whether the fiscal programmes (transfer schemes, social insurance etc.) are smaller or larger if they run through decentralised government? They show that by centralising the provision of public goods gives benefits only to the specific local populace, produces the incentives for rent-seekers or free-riders. Their model assumes j symmetric localities with population one each so the representative of locality j has the preference: $v_j = c_j + H(g_i)$. g_j is the local public good. If g is locally provided and financed through local lump-sum tax then all would be agreed on the optimal provision of g with budget constraint: $c_j = 1 - g_j$. If instead the same good is provided by central government and financed through federal lump-sum tax then the budget constraint is: $J_t = \sum_j g_i$, which clearly shows that all agents strive to obtain more g_i. This is because in case of success they need to pay only a fraction of $\left(1/j\right)$ of the total cost. In this way it creates a room for rent seeking and resultantly over-production of public goods.

Koethenbuerger (2008) rules out the role of externalities in determining the efficacy of decentralised and centralised system of governments, which of course is in stark contrast to the mainstream view. He rather emphasises that the presence of high amount of spillovers/externalities as the merit of decentralisation. Using a quasi-linear, iso-elastic preference model for two regions with different preference level for local public goods, he shows how consumption spillovers influences relative merits of both systems of governance. The demand for centralisation increases with more spillovers: $(G) = \begin{cases} \frac{1}{1-\eta} G^{1-\eta} \\ \ln G \end{cases}$. Where G is the public good and η is the elasticity of the marginal utility of public consumption. In a decentralized system the

policy making changes when spillovers increase: $\frac{d\overline{u^i}}{d\alpha} = \frac{\partial\overline{u^i}}{\partial\overline{g^i}}\frac{d\overline{g^i}}{d\alpha} + \frac{\partial\overline{u}^i}{\partial\bar{g}} + \frac{\partial\overline{u^i}}{\partial\overline{g^j}}\frac{d\overline{g^j}}{d\alpha}, i \neq j.$ α is the level of spillovers and i and j are respective localities. Keeping the contributions level as it is, when α increases district *i* benefits more from district *j's* public expenditure. The intuition is, in the presence of high spillovers the welfare level becomes non-monotonic, which narrow-downs the welfare difference between centralisation and decentralisation.

However, Hindriks and Lockwood (2009) differ from this view point. To Hindriks and Lockwood (2009) centralisation reduces the electoral discipline as rent seeker (corrupt) politicians target only the minimum coalition region to retain offices. Therefore, decentralisation is desirable if the target is to attain equity and efficiency. Their argument is on the contrary to the accepted notion of the comparison of centralised and decentralised form of government based on the presence of externality and heterogeneity of local preference. The model describes that how corrupt incumbents divert money from revenue central pool and reduce the welfare level of citizens. A snapshot of the model is presented here to understand the main intuition: $EW_c = E\overline{W} + (1-\pi)(1-S_c)(\frac{m}{n}\Delta_t - \delta\pi\Delta_s)$. S_c is the decreasing step-function of δ, which is the discount factor. EW_c is expected welfare benefit from centralisation. $\frac{m}{n}\Delta_t$ is the expected discipline from the selective pooling, *n* is the total number of districts and *m* is minimum winning coalition districts. In such a scenario the good-intentioned incumbents make a coalition with the ill-intentioned incumbents for the projects' selection at the lowest cost. Thus, under decentralisation: $EW_d = E\overline{W} + (1-\pi)(1-S_D)(\Delta_t - \delta\pi\Delta_s)$, bad incumbent can separate onlyΔ_t instead of $\frac{m}{n}\Delta_t$. Thus, voters' welfare is higher in decentralisation. However, their model is based on ample of unrealistic and trivial assumptions that are hard to fulfill in reality.

In similar fashion, Lockwood (2006) in another study presents a legislative model and assumes political representatives who tend to maximise their own pay-off instead of their voters. Supposing three regions in a federation, in which project in region three is most costly but gives more economic surplus: $(\theta_1 - C_1 < \theta_2 - C_2 < \theta_3 - C_3)\ and\ \theta_3 > C_3$, where, θ is the willingness to pay for the project. A welfare maximisation notion demands that project three should be selected. But the

representatives of region one and two respectively, impede project three to implement through the strategic delegation in legislative assembly, therefore, they prefer no project or status quo. Thus, the end result of centralisation may be:

> if region (i) chooses a delegate to the legislature who places a high value on the public good, this delegate will be more 'aggressive' in the legislature in demanding a higher g_i. This works to the benefits of citizens i because part if the cost of higher g_i is borne the other region. But, of course, if both regions delegate to 'aggressive' delegates, this will be self-defeating: the end results is that both g_1 and g_2 will be higher than their efficient levels (Ben Lockwood, 2006: 43).

However, Oates (2008) argues that efficient outcomes in terms of local public service provision are possible even without assuming benevolence of the local authorities. It runs as: "in the widely used median voter model, for example electoral competition, resulting in median-voter equlibria may produce outcomes that do not deviate very much from efficient ones" (Oates, 2008:315).[22]

Panizza (1999) finds that the level of fiscal centralisation has negative correlation with certain economic and political variables. His theoretical framework shows that country size, income per capita, the level of democracy and degree of fractionalisation are inversely correlated with centralisation. Panizza's empirical conclusions somewhat support the theoretical predictions of Oates (1972); Lockwood (2002); Besley and Coate (2003) whereby it is shown that the centralisation may not be suitable for a country with heterogeneous preference of public services and mature democracy.

Another line of argument comes in the favour of fiscal decentralisation is due to the ethnic fractionalisation. Alesina et al. (1999) are among the proponents who consider decentralised system best suited for an ethnically diversified society. Their analysis shows that how ethnic fractionalisation affects the amount of public goods, which is decided by political jurisdiction through median voter. The equilibrium amount of public good is shown as:$g^* = [\alpha(1 - \hat{l}_i^m)]^{1/(1-\alpha)}$. $\hat{l}_i^m$ is the median distance from the one preferred by 'median voter'(median distance from the median shows the

[22] Bregstrom (1979) gives a detail account of how median-voters outcomes could be Pareto-efficient.

scale of ethnic fractionalisation.)[23] Thus, it is depicted from the above equation that public good is decreasing in $\hat{l}_i^m$.

Authors like Stigler (1957); Musgrave (1959); Oates (1972) suggest that the role of subnational governments in redistributive policies is counterproductive. The reason why they stand against subnational governments' participation is mainly based on efficiency. Although inter-jurisdictional migration provides people the option to locate themselves to the places in order to increase their income with different bundle of public goods and tax burdens to the people. However, in case a poverty reduction scheme or redistributive policy is launched in a jurisdiction, it may lead to Pareto-inferior outcomes. That is because poor people from other jurisdictions find their way to and the rich come out of this jurisdiction. In order to provide support to the poor, the subnational governments need to impose more taxes on rich to finance the poverty related schemes. However, without any expenditure benefits in return the rich eventually would migrate to the regions with lower taxes. This leads to an unbalanced budgetary situation for the subnational government where the cost of redistributive programmes would tend to enlarge while the revenue sources aggravate. As a result, the redistributive policies of subnational government would become unsustainable. Thus, the subnational government's role in redistributive policies is clearly criticised on the ground of mobility of the population and factors of production. That is because fiscally induced mobility is likely to create economic distortions and inefficiencies.

On the other hand, there is a growing acceptance for the effective role of subnational governments for launching, implementing and monitoring policies related to poverty reduction (Teibout, 1956; Pauy, 1973; Brennan and Buchanan, 1980; Wildasin, 1994; Wilson, 1999; Bird and Michael, 2002; 2003 among others). Bird and Michael (2002) argue that the decentralised governments cannot avoid policies that have direct bearing on poverty.

Pauly (1973), assuming the imperfect population mobility, shows the efficacy of decentralisation in income redistribution and poverty reduction policies and presents that subnational governments are more efficient and effective in performing these

[23] Alesina et al. (1999:1249). Implications of the same model are tested using US data, and are reported later on in this chapter.

policies than the central government. However, Wildasin (1994) maintains that if factors of production and workers in a given jurisdiction are immobile, redistributive policies of subnational governments are inefficient and unsustainable.

Similarly, interregional migration may also affect poverty because it can potentially change the expenditure and tax policy of local governments. Wilson (1999) and Wildasin (2003) argue that perfectly mobile factors migrate to jurisdictions with low tax rate unless 'after tax rate of return' becomes equal countrywide. This, therefore, leads to a 'race to bottom' competition among local governments which forcefully reduce their tax rates to avoid further outflow of mobile factors. Nevertheless, Tiebout (1956) demonstrates that taxpayer mobility allows the local governments to adopt an autonomous tax and expenditure policy to fulfill the highly heterogeneous demands of the constituents.

Sumarto et al. (2004) present four reasons for fiscal decentralisation to alleviate poverty. Firstly, decentralisation makes the subnational government more transparent and accountable in designing and implementing its policies. Secondly, it allows resource endowed localities to shape and implement their own poverty reduction schemes. Thirdly, subnational government has authority to utilise the allocated/raised fund according to their own priorities. And finally, the autonomous local governments can create more conducive economic setting to bolster economic growth and create more job opportunities.

Fiscal decentralisation may also alter the level of poverty by changing the composition of public sector expenditures. As part of the redistributive schemes public resources can directly be given to poor that cause their income to increase. And pro-poor public expenditures also affect poverty even without direct resource transfer to the poor. For example, with fiscal decentralisation the public expenditures on basic services such as health and education are to increase. Since these services are fundamental for human development, therefore, fiscal decentralisation is expected to increase the welfare of the poor (Martinez-Vazquez, 2001).

2.5.2 FISCAL DECENTRALISATION AND POVERTY: EMPIRICAL EVIDENCE

The time-scale of empirical literature on the subject is much shorter than its theoretical counterpart. It has started its development in 1990s when Easterly and

Levine (1997) in a cross countries analysis discover a negative relationship between ethnic diversity and public goods and services parameters. Their findings reveal that the poor economic performance of African countries is positively correlated with their diverse ethnic structures. Supporting Easterly and Levine (1997) conclusions, Alesina et al. (1999) also confirm negative interaction between ethnic fractionalisation and public goods spending. They argue that "ethnic conflict is an important determinant of local finance" (Alesina et al., 1999: 1243). They model and test its implication with three data sets of the US cities, metropolitans and urban centres, respectively. Their empirical outcomes reveal that spending shares on the core public goods and service (education, roads and sewerage) are lesser in more ethnically fragmented areas/localities.

The study by Bird and Rodriguez (1999) in this regard gives the first trend of fiscal decentralisation impact on poverty alleviation. Examining the relationship between decentralisation and poverty alleviation, in an international setting with special focus on the Philippines, they exhibit that the effectiveness of fiscal decentralisation on poverty alleviation may not only be gauged through the level of expenditures on public expenditures. Instead the socio-economic, political, cultural and institutional setup of countries also plays a pivotal role in determining the efficacy of fiscal decentralisation in poverty reduction. Thus, overall interregional migration of population and factors of production appears to be a key distinctive determinant of the potential impact of fiscal decentralisation on poverty. In other words, if migration of population and factors of production are constraint, polices adopted by the local governments may be more effective in implementing poverty related programmes with no or minimum efficiency cost than the central government.

Rao (2000), through a conceptual and theoretical framework, shows the relationship of fiscal decentralisation and poverty alleviation. His study reveals that fiscally decentralised local governments can give more tangible and efficient poverty alleviation schemes than what is possible in centralisation. He suggests a framework under which the central and local government finance works through the channel of intergovernmental transfers system for better poverty alleviation outcomes. Likewise, Bird et al. (1998) show a linkage between intergovernmental grants to poverty alleviation. They conclude in the favour of greater fiscal decentralisation and

better intergovernmental fiscal arrangements in order to increase the expenditure on pro-poor schemes that reflect the wishes, needs and preferences of each district and sub-national units.

Presenting a case study on Sri Lanka, Gunatilaka (2000) examines the impact of decentralisation on poverty alleviation. The author regards a viable and functional infrastructure in rural areas as a pre-requisite for the success of fiscal decentralisation in arresting poverty. He postulates that in a weak and flawed rural development setting with shaky or no institutional support the effectiveness of fiscal decentralisation on rural poverty reduction is very unlikely. He concludes that fiscal decentralisation has to be designed to integrate the rural areas to urban agglomeration.

Certain economic outcomes have been identified in the literature as potential determinants of poverty reduction that are affected by fiscal decentralisation. Oates (1972; 1993) supporting the argument by which subnational level decision making due to the tailoring of local people choices and preferences can increase the social service benefits, also points out its validity in a dynamic setting of economic and other macroeconomic developments. In his view there would be faster economic development if macro policies on regional infrastructural development and human capital are made considering the local and regional conditions and local requirements. He remarks that there will be more effective and greater "… economic development than centrally determined policies that ignore these geographical differences" (Oates, 1972).

However, Martinez-Vazquez and MacNab's (2003) cross-country empirical work suggests that the relationship between fiscal decentralisation, economic growth and eventually the latter's impact on poverty is not linear. There might be limited linear trend after which more decentralisation leads to have an adverse impact on economic growth and development.[24]

Regarding the impact of fiscal decentralisation on macroeconomic stabilisation, the empirical evidences are also divided. Authors like Musgrave (1959); Rodden (2002);

[24] Other studies show the relationship of fiscal decentralisation and poverty reduction through economic growth include, Davoodi and Zou (1998); Xie et al. (1999) Akai and Sakata (2002); Baskaran and Feld (2009); Rodrguez-Pose and Ezcurra (2011).

Rodden et al. (2003) argue that the decentralisation exacerbates the macroeconomic instability. Therefore, the macroeconomic policies should exclusively be given to the central government. Nevertheless, Wibbels (2002) and Shah (1999) show that decentralising some macroeconomic policies promotes macroeconomic stability, rather than hindering it. Regarding inflation Treisman (2000) and Wibbels (2002) illustrate that fiscal decentralisation does not affect the level of inflation. However, Martinez-Vazquez and McNab (2006) show that fiscal decentralisation aggravates the price stability.

The size of the public sector is another key macroeconomic variable that potentially can affect the level of poverty: a bigger public sector enables the government to launch and implement more programmes with significant impact on poverty (Sepulveda and Martinez-Vazquez, 2011). Although the conventional public finance theory supports the argument that the size of government is likely to reduce under decentralisation because of subnational governments' tax competition, the ultimate public sector expenditure would not be under the optimal level. Brennan and Buchanan (1980) propose that while the bureaucrats in order to pursue their own vested interest tend to increase the public expenditure beyond the optimum level, the inter-jurisdictional tax competition arise from fiscal decentralisation would restrain the inefficient use of public expenditures. Supporting this argument, Fiva (2006), based on OECD data concludes that, whereas revenue decentralisation decreases the size of the government, the expenditure decentralisation tends to increase the size of the public sector. However, presumably if government officials are benevolent and would like to maximise the welfare of public, the low tax collection due to inter-jurisdictional competition would exert a downward pressure on public finance that may force the government to cut some key public service provision. On the contrary Feld et al. (2003), while surveying the literature of fiscal decentralisation and size of the government, find no definite relationship.

Another important determinant that can affect the level of poverty is the regional inequality. Considerable evidence supports the convergence of regional disparities in the long run, if not in the short run. For example, Barro and Sala-i-Martin (1991) show a regional convergence in the US and seven European countries. Their results reveal a 2% per annum convergence rate for these countries, where the poor

states/regions grow faster than their rich counterparts. The empirical results of Barro and Sala-i-Martin (1991) support the theoretical prediction of de la Fuente, (2002) where it is demonstrated that the convergence tends to happen but at a slower rate. de la Fuente, (2002) illustrates that for regional convergence to take place, two conditions need to be fulfilled: first, diminishing returns to capital should exist; and second, the factors of production should be reallocated from the lower productive sectors to the higher ones, along with high rate of technological progress. He doubts that under decentralisation such relocation of the factors of production may not take place. Rodrguez-Pose and Ezcurra (2010) show the relationship between decentralisation and level of regional disparity. They identify that fiscal decentralisation has the potential to reduce the regional disparity in developed countries; while in developing countries on the contrary fiscal decentralisation may aggravate regional disparity.

Another channel through which fiscal decentralisation may potentially affect the level of poverty is corruption. Some of the studies of fiscal decentralisation are of the view that corruption is preponderant in a fiscally decentralised system of governance, than at the central level. Prude'homme (1994); Tanzi (1995); Treisman (2000); Persson et al (2001); Chen and Treisman (2009) are in the view that local level bureaucrats and elected representatives are more likely to succumb to the wishes and vested interests of local pressure groups and elites compared to the centrally appointed officials, which eventually leads to corruption and embezzlements among local elites. Another remarkable reason quoted by these authors is the weak and full of loophole monitoring and evaluation system at the local level that provides a fertile ground to local politicians and bureaucrats to misappropriate public funds. Chen and Treisman (2009), for example, in a cross-country analysis illustrate a positive correlation between political decentralisation and level of corruption: the scale and magnitude of bribery increases in both private and public sector firms with decentralisation.

However, Huther and Shah (1998); Fisman and Gatti (2002); Arikan (2004) show that fiscal decentralisation enhances competition among localities/districts, and local competition forces the governments to limit their unnecessary expenditures and discipline the local public finance. In a competitive environment corruption and

misuse of local resources is least affordable, therefore, local officials put a stringent mechanism in place to curb the corruption. Katsiaouni (2003) and Chen and Treisman (2009) also show that accountability and responsiveness measures are more consolidated under the decentralised system of governance, which then limit the corruption and embezzlement. Supporting the same line of argument, Gurger and Shah (2000) in an empirical study of 30 economies show that weak political culture and strong bureaucracy in centralised regimes are the significant causes of corruption, rather than decentralisation.

In theoretical literature of fiscal decentralisation, we come across the argument that fiscal decentralisation without political consideration may not be effective. Sensing the importance of political (de)centralisation, the impact of politics and political parties on the performance of fiscal decentralisation has been evaluated empirically. For instance, Enikolopov and Zhuravskaya (2007) conduct a cross-country research to examine two concerns: firstly, whether or not the strengthening of national political parties helps improving the quality of governance, enhances the public goods provision and bolsters the economic growth; secondly, whether the appointment of administrative subordination by central government would be more effective in enhancing the results of fiscal decentralisation. Their findings reveal that fiscal decentralisation produces a positive outcome in terms of economic growth and poverty reduction in those countries where political parties are old and matured. However, these variables appear to have a negative correlation with the fractionalisation of the mainstream parties. On the contrary, administrative subordination is supportive to improve the results of fiscal decentralisation. Such empirical findings suggest that for fiscal decentralisation to be fully effective there should be a balanced and matured political culture at centre with countrywide political parties having elected representatives.

Using a survey based dataset from 1985 to 1999 of rural China that covers 60 villages, Zhang et al. (2004) compare two different government models. They show that elections at local level have a considerable effect on the composition of taxes as well as on poverty. That is, it shifts the distribution of taxation from citizens to enterprises. Such empirical evidence supports the theoretical argument[25] that elected

[25] See for example, Arzaghi et al. (2005).

representatives of villages tend to moderate the burden of revenue on local people and instead diversify the tax base bringing the enterprises under the tax net. Additionally, their results confirm common believe of the role of the local level governance and power sharing in boosting up the allocation of public expenditure in the pro-poor sectors. Huther and Shah's (1999) study somewhat supports the above outcomes. They construct an index for the quality of governance around 80 developed and developing countries and conclude that quality of governance positively affects the public service provisions.

Hernandez and Jaillo-Rabling's (2008) empirical study of more 'elite capture' under fiscal decentralisation supports the theoretical predictions of Bardhan and Mookherjee (2005). The authors demonstrate how political opportunism or elite capture impedes the performance of subnational governments in poor areas. Using the data from 2429 Mexican municipalities they assess whether the Social infrastructure Fund (SIF) – a poverty targeting fund executed and administered by decentralised governments in Mexico – conducts its resource disbursement solely on the basis of poverty or there are other factors as well which drive the fund's disbursement. Their results show that besides poverty index, municipal fund per-capita and revenue sharing per-capita are positively correlated with the SIF. Based on this evidence it is concluded that such programmes which are earmarked to provide pro-poor services (education, health, electricity and sanitation) through decentralised types of governments (states and municipalities in Mexican case), are not well-targeted. The fundamental reason for this failure is the presence of elite capture.

Like many developing countries in Western Europe fiscal decentralisation has also been an effective tool to augment and sustain public investments. Kappeler and Valila's (2008) empirical findings help us understand how fiscal federalism turned up the public expending in Europe. They use a panel dataset from 1990 to 2005 of ten European countries and breakdown of public investment in four broad categories: infrastructure; hospital and schools; public goods and recreation facilities. The public investment variables of all categories, except recreational facilities, are positively correlated with share of tax revenue attributed to sub-national levels of government. The result of their research may be interpreted in terms of 'fiscal competition' under

fiscal decentralisation. Moreover, cutting down the share of non-productive investment like recreation under decentralised system reveals the over-investment trend in such area under centralisation where lower tier of governments are competing for a common pool of resources. In a centralised system there may be many strategic reasons for local representatives to *mis-present* the local demand for public services. This being the case, decentralisation would reduce such strategic behaviour and bring the redistribution in line with the local needs.

On the question of direct effect of fiscal decentralisation on poverty and redistributive polices the empirical literature is as divided as we observed the literature for indirect interaction of decentralisation and poverty. Right through the empirical work their direct relationship is not very broad and hence required more systematic research. Yet whatever little research has been done needs to be reviewed.

For example Braun and Grote's (2000) work on India, China, Egypt and Ghana find a negative relationship between fiscal decentralisation and poor-oriented expenditures on social services.[26] Nevertheless, unlike Enikolopov and Zhuravskaya (2007) their study reveals that political decentralisation may augment the fiscal decentralisation's capacity to perform better for the poor.[27] However, West and Wong (1995) note that fiscal decentralisation, due to its flawed design (more focus on federal-provincial fiscal relations and leaving local governments entirely at the mercy of provinces), is the prime cause of regional inequality and poverty in China.

Fiscal decentralisation with specific characteristics could also potentially affect the poverty in many other direct ways. For instance, Alesina et al. (2001) show that in Italy how public employment has been used as a redistributive policy in which the central government supports southern part of country by paying higher salaries where the average income is lower than northern part of the country. Likewise,

[26] In case of the Philippines the decentralisation programme has been relatively successful with certain impact on poverty. However, the widespread corruption and unequal distribution of intergovernmental transfers restricted subnational government capacity to fully realised pro-poor programmes (Angles and Mango, 2004; and Jutting et al., 2004).

[27] Similarly, Jütting et al. (2004) carries out a cross-country study on fifty developing and developed countries and shows a positive correlation between fiscal decentralisation and poverty alleviation. They underlie the imperatives of political and administrative decentralisation as pre-requisites for substantial performance of fiscal decentralisation on poverty alleviation. Likewise, Kakwani and Perkia (2000) and, Bardhan and Mookherjee (2004) document a positive correlation between fiscal decentralisation and poverty reduction.

Martinez-Vazquez and Yao (2009) in a cross-country analysis, Rossello-Villallonga (2004) for Spain and Alesina et al. (2000) for the US show the positive impact of fiscal decentralisation on public sector employment. On the contrary, Azfar and Livingston (2002) do not see any improvement in pro-poor service provisions under decentralisation in Uganda.

A broader trend in the literature evaluates the interaction of poverty alleviation and *decentralisation* as a whole and not only fiscal decentralisation. According to this literature, decentralisation is the devolving of political and financial powers to lower tier of governments and making them accountable to constituents as well as central government. Though, the above description does not focus on fiscal decentralisation *per se* but it is fair to claim that this concept of decentralisation is incomplete without incorporating fiscal aspects. That is primarily because this type of fiscal decentralisation or simple decentralisation considers political decisions as prime factor for the outcomes of decentralisation. Thereby, it may be better to deal with political economy of fiscal decentralisation, which has attracted a great deal of attention in contemporary literature of fiscal federalism.

For example, examining the impact of decentralisation on poverty reduction in Sub-Saharan African countries Crook (2002) highlights that the impacts of decentralisation on poverty reduction and local government responsiveness to the poor widely depends on the political nature of federal-provincial or provincial-local relations. He also demonstrates that without a broader mechanism of accountability at the lower level of governing system, decentralisation is very unlikely to be effective in poverty alleviation. He goes on to say that poverty reduction programmes in Africa are mainly determined by political and ideological nature of the central government. However, Alderman (2002) shows that social assistance mechanism in Albania is more targeted to the poor compare to safety-net programmes in the same income level countries elsewhere.

Krishna (2003), among others, thinks that local empowerment in the shape of participations of women of lower caste and other such groups, is the major factor for understanding the decentralisation's impact on the poor. He outlines that basic education plays a crucial role for more participation of common people and reduction of the influence of elites at local level. That is because basic education,

regardless of income level, paves the way for the access to information and influence.

Evidences discussed so far indicate the presence of specific attributes of fiscal decentralisation in terms of improving service delivery due to many factors, including responsiveness, proximity and accountability of subnational governments to local people needs. Nevertheless, it is just a small step towards the understanding of fiscal decentralisation impact on pro-poor social and economic services. In order to explore the relationship of fiscal decentralisation and poverty, the channels through which they interact need to be examined further. Economists identify two pro-poor social services and one economic service. These are the provision of basic education, healthcare and agriculture. The relationship between fiscal decentralisation and poverty may be explained through these pro-poor services. In the following three subsections we subsequently discuss the impact of fiscal decentralisation on these services.

2.5.3 FISCAL DECENTRALISATION AND HEALTHCARE

On the one hand decentralisation of health sector invites criticism because of many complexities, such as diseconomies of scale, which tend to restraint the local governments in the provision of costly treatments and immunization (DeMello, 2004). On the other, decentralisation of health sector is supported by many (Mills, 1994), because a less unified health service provides by the subnational governments can better tailor the preferences of local people. Moreover, under the local accountability and greater community participation the subnational governments are more effective in implementing and monitoring health programmes. And decentralisation of health is also expected to increase the efficiency through better allocation of resources to the targeted groups, particularly to the poor income groups.

Infant mortality rate is believed to be a barometer of health status of any society (Kaufmann et al. (2002). Robalino et al.'s (2001) cross-country evaluation of the impact of fiscal decentralisation on infant mortality rate shows in countries where the subnational governments are responsible to manage higher share of total health expenditures tend to have better health indicators including infant mortality rate. Furthermore, they also assert that public expenditure on health is higher in those

subnational governments that command improved administrative capacity. This indicates that for fiscal decentralisation to be more effective it needs to be accompanied with administrative decentralisation.

In addition to the cross-country analysis, country specific analysis has also been conducted for the assessment of fiscal decentralisation on health outcomes. For example, Schwartz's (2002) study on the Philippines suggests a positive correlation between fiscal decentralisation and health outcomes. The study compares the level and composition of health expenditure during both pre and post devolution reforms in 1994. The results show a comparative increase in per capita health expenditures following the devolution. And the rise on expenditure is more prominent in provincial level compare to municipal ones, which may be because the former are responsible for major health projects and hospitals. Another interesting revelation of the study is that following the devolution, the subnational governments with more unconditional transfers from upper tier of governments tend to have higher allocation for health sector at the expense of other social services. Similarly, Arze et al. (2003) show a common trend in Bolivia, Ecuador, El Salvador and Nicaragua where higher health expenditure is followed by fiscal decentralisation.[28]

No matter how much money the subnational governments are entitled to spend on healthcare sector, unless a stringent accountability system is in place the effectiveness of decentralisation on the performance of health services may be jeopardised. Khemani (2004) for example has conducted a research on Nigeria's intergovernmental design and its impact on local accountability. He found that after the decentralisation of health sector a widespread disruption and mismanagement in public health services ensued that ultimately led to further deterioration of the already low quality health service in the country. Interestingly, this situation is not entirely explained by not having sufficient resources at the subnational level. Lack of accountability is also a culprit in the equation of the devolved resources. Thus, under conditional intergovernmental transfers for health spending, the local governments are not held accountable to the public, which leads to the inefficient use of health

[28] Likewise, Lindaman and Thurmaier (2002) highlight a positive relationship between fiscal decentralisation and provision of health and education. They demonstrate that increasing the level of fiscal decentralisation (in term of sub-national expenditure to total expenditure) by 2 to 4 %, increases the human development index by one point.

spending by local authorities. Kaufman et al. (2002) studies the impact of fiscal decentralisation on public services delivery, particularly health and education in Bolivia. The results show that albeit both central and local governments are failed in providing adequate public services but comparatively local governments give better access to citizens, particularly to the poor and disadvantaged than central government. They note that since decentralisation is at its early stages in Bolivia positive outcomes of access to social services may be an indication for better health indicators such as infant mortality rate and crude death rate.

However, it is also shown that fiscal decentralisation does not necessarily helps in improving the health outcomes even if it is in accordance with public demands (Pritchett, 1996; Inchauste, 2000). For example, in Mexico and Jordan despite differences in public spending on health services infant mortality rate was at a similar rate (WDR, 2004). Likewise, both Haiti and Cote d' Ivoire witnessed a reduction in per capita health expenditures during 1980s and 1990s but infant mortality rate improved in the former and worsened in the latter.

2.5.4 FISCAL DECENTRALISATION AND PUBLIC EDUCATION

Like health the debate for decentralisation of education has received much attention for over two decades. Educational decentralisation is rationalised on three broad categories: 1. Redistribution; 2. Effectiveness; and 3. finance (Hector, 2006; Winker, 1994).The notion of redistributing power in educational decentralisation generates from the fact that community participation in schools' affair weakens the influence of strong lobbies such as teachers' union. Greater teachers' commitment, citizens' participation and surveillance lead to higher schools' performance. However, decentralisation of political power only works well in democratic society where local elites are not entirely in charge of decision making process (Winkler and Gershberg, 2000). The educational finance's argument typically revolves on the idea that the central government because of financial constraints shifts a part of the basic and secondary education burden to subnational governments, to non-governmental organisations and local communities. Considering that local decision making because of its proximity better identify the local needs can provide education to local people with improved quality and reduced costs. Moreover, the decentralised

decision making regarding education provide greater voice to the local people makes the official and administrators accountable to the public for their performance.

However, arguments in the favour of centralisation of education are equally strong. For instance, Weiler (1993) is clear when he supports the centralised education on the ground of standardisation, curriculum development and qualification. For standardisation of education and mutual recognition of qualification (diploma, certificate etc.) in nationwide the centralisation of education is required. Critics (Carnoy and Hannaway, 1993) are in the view that decentralisation reforms are very unlikely to resolve the problems concerning education. These are complex problems therefore the need of a widespread rethinking in policy arena is suggested and emphasised upon. Because the debate of the decentralisation of education is presented in terms of identifying what functions and responsibilities should be decentralised and what should remain with central government, rather than whether to centralise or decentralise the entire sector. Therefore, the "partial decentralisation" has failed. It has not solved the problems of the poor people vis-à-vis the quality and quantity of education.

In the 1990s several Latin American countries (Brazil, Bolivia, Chile, Colombia, Costa Rica, Mexico, Nicaragua and Venezuela) embraced decentralisation in education sector. They aimed to enhance the overall quality of education by removing the administrative bottlenecks and inefficient use of resources. But also to increase the accessibility for those who hitherto are excluded from education. In Argentina for example all secondary and primary schools have been transferred to the provincial governments and now provincial education department is responsible for planning, financing and management of education (Winkler and Gershberg, 2000). Chile and Colombia are other examples where educational decentralisation began in 1980s and 1990s respectively to devolve primary and secondary schools to regional governments and municipalities in order to produce improvements at school level.

However, the evidence on this issue is also mixed. Educational decentralisation without proper technical and financial supports from the central government has not been successful in improving the quality of education, particularly for the poor. For instance, Brazil with strong decentralised education system also failed to increase the

per capita education expenditure i.e. reducing regional and income inequalities in accessing to education. In Chile the condition of poor people not only has not improved after decentralisation but has deteriorated further. Therefore, the inequalities between the poor and the rich has widen further in post decentralisation period (Carnoy and De Moura, 2000).

According to the 1973 constitution of Pakistan, education is a provincial subject. But in reality this has never happened. Planning, finance and administration of education is partially centralised. The federal education department sets the overall curriculum, policy, standard and budget for education. The central government is also responsible for policy planning and coordination of the education sector. The implementation and execution of these plans and policies come under the domain of the provincial governments. After the devolution reforms in 2001 (further discussed later in the thesis) the operational responsibility of primary and secondary education has been transferred to the local governments (districts and municipalities). Nevertheless, it is worth pointing out that no federal level function has transferred from the federal ministry of education to the local or provincial level after the devolution. Under the new scheme, the local governments are responsible for planning, monitoring and finance of basic education. However, curriculum development and standardisation still lie with federal government and post creation or abolition and salary setting under the purview of provincial governments (Khan and Mira, 2011).

The core reason of giving basic education to subnational governments is to improve the provision and the quality of education. Therefore it is plausible to assume that with more fiscal decentralisation, the provision of education may increase. Nevertheless to the best of our knowledge, this relationship has not been empirically tested.

2.5.5 FISCAL DECENTRALISATION AND AGRICULTURE

Agriculture is the economic backbone of many developing countries as it provides livelihoods and employments to a great part of the population. A widespread decentralisation has been noticed in agriculture sector - a reform package across many developing and transition economies such as India, China, Pakistan, Ghana,

Vietnam and many more (IFAD, 2001; Rivera and Alex, 2004). In order to increase the productivity and performance of the sector, it is suggested that fiscal decentralisation increases investment on agriculture, and latter being a pro-poor sector, in turns improves the living standard of the poor. International experience shows that output and yield of agricultural products have a significant impact on poverty (IFAD, 2001). World Bank (2005) presents that three-fourth of 1.2 billion rural dwellers live below the poverty line, 75% of them depend on agriculture. Naturally agriculture decentralisation as expected would improve the livelihood of majority of people. Consequently, it is a potential channel through which fiscal decentralisation would help reducing poverty in rural areas.

Following the economic reforms in 1979 in which agriculture was decentralised, agricultural production increased rapidly in China that helped the country to achieve self-sufficiency in food production (Chuang et al. 2004). With the similar fashion, localisation of agriculture extension in Nicaragua seems to have helped poor people to escape from the extreme poverty (World Bank, 2000). Prior to the independence from Britain (1947) agriculture was a local government subject in India, and post 1947 period the sector has jointly been handled by states and local governments. The impact of decentralisation on agriculture in India has a great variation from one state to another. For example, in Punjab and Haryana the agriculture productivity has doubled that of Bihar and Orissa (Johnson, 2003). In Pakistan since its inception (1947) agriculture policy has been designed by the federal ministry of agriculture but implementation and finance has jointly been conducted by provincial line departments with the collaboration of federal government. After the devolution reforms in 2001 implementation of agriculture has been transferred to local governments but financing and supervision still remain with provincial authorities.

2.6 CONCLUSION

The existing literature provides a good insight about many variables that affect fiscal decentralisation. The literature, however, overlooks the link between fiscal federalism and promotion of welfare in all constituents of the federating units. That is to say it does not sufficiently cover the correlation between alleviation of poverty and decentralisation of fiscal decision making. Thus, to bridge this theoretical gap

we develop a legislative bargaining model under fiscal federalism and assess its impact on welfare maximisation for the poor.

Meanwhile, reviewing the empirical literature of the impact of fiscal decentralisation in general and fiscal decentralisation on poverty alleviation in particular raises couple of issues. Firstly, empirical studies offer contradictory results. Literature surveyed in this chapter shows that some studies present positive relationship between fiscal decentralisation and poverty reduction while other studies reveal a negative relationship. Therefore, it is plausible to believe that the current literature is inconclusive regarding the impact of fiscal decentralisation and its impact on poverty.

Furthermore, majority of the studies are sector or programme-specific and failed to assess the overall impact of decentralisation countrywide. Another potential limitation with existing empirical literature is of its emphasis on cross-country analysis that confronts with problems of coping with the external shocks, different institutions, political regimes, different socio-economic settings and other exogenous factors. These and many other concerned limitations within the empirical literature warrant a compressive empirical study to evaluate the direct and indirect – through pro-poor social and economic services – impact of fiscal decentralisation on poverty. The goal of the empirical part of this thesis is to conduct a countrywide research and the interaction of fiscal decentralisation and poverty in Pakistan.

PART II

THE HISTORICAL BACKGROUND AND CURRENT TRENDS OF POLITICAL ECONOMY, FISCAL DECENTRALISATION AND POVERTY IN PAKISTAN

CHAPTER 3

THE POLITICAL ECONOMY OF PAKISTAN

3.1 INTRODUCTION

Pakistan with an estimated population of 180 million is a federal country composed of four federating units or provinces: the Punjab, Sindh, Khyber Pukhtunkhuwa (KP) and Balochistan; the Federally Administered Tribal Areas (FATA), and the Capital Territory, Islamabad. Like the United States, federal units in Pakistan, differ largely in terms of population and geography. For instance, while the Punjab inhabits more than half of the country population (58%), Balochistan with 45% of total national territory homes only 5% of population. The ethnic diversity marks Pakistan as one of the most heterogeneous and multi-ethnic societies around the world. Each province is inhabited by a different nationality: the Punjab predominately homes Punjabis; Sindh is populated by Sindhis (Native dwellers) and *Majjirs* who migrated to Pakistan from India during and after the partition of the Sub-Continent in 1947; Pashtuns live in KP; and Balochistan is the province of Baloch people.

Pakistan's economy is one of the great contrasts: it produces sophisticated nuclear weapons and missiles yet fails to manufacture a crankshaft. She has only one inefficient and antiquated steel plant, established with the help of the former Soviet Union in 1970s, and no plastics, chemical and automobile industry in her credit. On average the economy has succeeded to grow at the rate of 6% since 1950 (Pakistan, various issues), yet more than 33% (Gazdar, 2005) of her population lives in abject poverty. The factors which contributed in the state of imbalance in the economy and the prevailing inequity and disparity in different regions and sections of the population include many. Among them the concentration of the economy in the hand of few families and regions in early decades, lingering efforts of nationalisation in 1970s, piling up of domestic debt and gross negligence of social sector in 1980s,

widespread corruption and irresponsible spending in 1990s and the burgeoning defence expenditure and creation of a bubble economy in 2000s.

The political process of Pakistan has been more volatile and tumultuous as her economy because of instability and dramatic events. The country has been ruled by military and intermitted by civilian dispensations throughout its political history. For the first time in recent world history a majority wing (East Pakistan, now Bangladesh) separated from minority west wing after a bloody war in 1971. A tiny group of emigrants acquired control over the key decision making posts at the apex of centralised state power with the help of Punjabi elite. And most importantly, Pakistan attacked and forcefully merged an independent state of Balochistan in 1948 into her territory (Harrison, 1981) using palatial intrigue as well as the military force. There has been unabated struggle by the Baloch people to regain the independent state of Balochistan over the last 64 years. Despite the state repression to quell the resistance movement, yet the Baloch has refused to budge.

This chapter is aimed to cover three separate but relevant themes with significant impact on the political economy of Pakistan and lays a particular background that helps to understand the theme of this thesis. First, the chapter contains summary examination of public finance and fiscal policy making in Pakistan. It briefly investigates the economic and political factors that affect the process of fiscal policy decision making in Pakistan. The chapter also discusses the problems facing the fiscal policy making, as well as the participants of the fiscal policy making in Pakistan. In addition, it illustrates the strengths and weakness of policies and their impact on other indicators of the economy. Second, the chapter describes the social sector, particularly health and education in Pakistan. Third section of the chapter deals with question of Pakistan-Balochistan relations and examines the political economy of Balochistan.

The discussion of this chapter lays a ground and provides a motivation for the theoretical model and empirical analyses that we will illustrate in second part. As we will come across the chapter, in the bargaining game among various stakeholders in the process of fiscal policy the weaker stakeholder(s) has less probability to gain optimal resources. This leads to create a situation where the interests and preferences of a dominant province and certain groups are more reflected in public policies. The

inclination of public policy making towards powerful lobbies and influential province therefore would adversely affect the resource allocation to social sector, which inherently affects poor the most, and weaker and the poorest provinces. For empirical analysis the illustration of this chapter is important because the fiscal policy decisions not only determine allocations to social services it equally affect resource distribution between federal and provincial governments. Both have a potential impact on the poor.

The analysis presented in this chapter is relevant to the greater public finance and political economy literature. The chapter makes an academic contribution by critically evaluating certain crucial but academically ignored political economy issues in Pakistan.

3.2 PUBLIC SECTOR

A large public sector and the involvement of the state made the fiscal policy a key determinant of the economy of Pakistan. Public sector may be divided into four groups: 1) federal government; 2) subnational governments; 3) deconcentrated public departments and agencies; and 4) state-owned economic enterprises. The federal government is mainly responsible for supplying public services like defense, while subnational governments (this organised in two tier administrations: provincial and local governments, respectively) have the duty to supply services like education, health and water. Decentralised and deconcentrated agencies like the State Bank of Pakistan, Pakistan Television, and Pakistan International Airlines have specific administrative and budgetary powers. In the last category of the public sector are the state-owned enterprises such as Steel Mill and Gadani Ship Breaking. These enterprises play a key role in different sectors of the economy.

For a less-developed country like Pakistan, having a consistent resource mobilisation mechanism is crucial in order to maintain a decent socio-economic performance in the long run. Looking at Pakistan's fiscal history one can easily notice higher public expenditures, particularly the non-development expenditures, has forced the country to have a fiscal deficit. Pakistan is a typical example of Weingast et al. (1981) theory of "distributive conflicts", where the geographical diversity and social and ethnic heterogeneity make the fiscal policy making and bringing the public sector to a

manageable level a formidable task. The revenue generation system of the country is almost centralised that is controlled by the Federal Board of Revenue (FBR). The FBR is a centrally controlled body that is responsible for the collection of around 85% of all tax revenues. During the budget making each geographical region and vested interest groups in the realm of the federation try to maximise the projects' allocation in the favour of their respective regions, ethnic groups and classes.

Structure of Pakistan's political economy partially resembles the Lockwood's (2002) model. In this model one province dominates others in terms of population. The dominant unit uses its disproportionate legislative and administrative representations in its advantage in terms of project selection and fund allocation. For instance, the Punjab with 58%[29] of country's population enjoys a paramount dominance in public policy making. During democratic regimes the province remains the favourable destination for projects selection due to its majority seats in National Assembly.[30] In the same way, during dictatorial regimes, the Punjab again has the lead to attract disproportionately a bigger part of economic projects since majority of military and civil bureaucracy personnel are from the same province. Thus in a "non-cooperative" kind of a federation where one federating unit has more than half of the country's population excessive representation (even more than its population) in public institutions and geographical concentration is very likely. However, in order to avoid polarisation amongst the federating units of the federation, and for that reason to accommodate other provinces, the dominant province – the Punjab in case of Pakistan – allows some projects to the former. It is worth spelling out that it is very unlikely for the smaller provinces to receive projects at the cost of dominant province. On the contrary, the projects allocated to the latter are in addition to what would already be given to the dominate province. This, therefore, leads to increase the size of the national budget and worsens the budget deficit.

In Pakistan the budget deficit remained higher during the decades of 1970s and 1990s when the country was governed by democratic dispensations. This phenomenon somewhat adheres to the predictions of the Alesina and Tabellini's (1990) political economy model. The model describes that public expenditure – and

[29] See Economic Survey of Pakistan (2009-10).
[30] The annual national budget presents to and passes by simple majority by the National Assembly.

may subsequently be the budget deficit – is higher during democratic governments because politicians with different preferences affect its composition. The incumbent politicians in the fear of being voted out by their opponents with different fiscal preferences tend to finance the unproductive projects in order to garner new supports or maintain the old ones. If opposition party replaces the incumbent, it has to bear the fiscal burden of such public service projects. Thus, during democratic period the country witnessed a bigger budget deficit compare to the autocratic regimes. However unlike dictatorial regimes, the democratic dispensations, because of their reliance on public support to come to the power, are likely to spend more on social services, which notwithstanding run a huge budget deficit.

3.3 PUBLIC REVENUES AND EXPENDITURES

The fiscal functions and responsibilities of federal and provincial governments are specified in the constitution. Federal Legislative List, a list within the constitution, prescribes the functions of the federal government that includes foreign affairs, defense and strategic affairs, national highways and ports, and currency and stock exchanges. In addition the federal government also performs functions from the Concurrent Legislative List.[31] Residual functions such as law and order, policing, primary, secondary and tertiary education, urban transport and sanitation, health, irrigation and agricultural extension come under provincial governments' domain.

The local governments run under the ordinances, not prescribed in the constitution, which were promulgated in 1979 and later on in 2001 subsequently in the Punjab, Sindh, KP and Balochistan. The provinces delegate functions from the Residual List to the local governments. The delegated functions include compulsory as well as optional ones. The former are mandatory for the local governments to perform while the optional are performed under certain circumstances.

[31] The Concurrent List contains functions performed either by the provincial governments or the central government or by both simultaneously. However this List is to be abolished under the 18th amendment passed from both houses of the parliament in 2010, and all service functions are to be devolved to the provinces.

Table 3.1: Services and Functions of the each Tiers of the Government in Pakistan

Legislative Responsibilities	**Services**	**Actual allocation of functions**
Federal government	Defense External affairs and foreign aids Post, telegraph, telephone, radio and TV Currency and foreign exchange Institutes for research Nuclear energy Parts and aerodromes Shipping, air service, railways, and national highways Stock exchanges Geographical and meteorological survey Censuses Mineral oil and national gas Industries	Federal government
Federal and provincial Governments	Population planning Electricity (except KESC) Curriculum development, syllabus planning, and centers of excellence Tourism	
	Social welfare and employment exchanges Vocational/Technical training Historical sites and monuments	Federal/Provincial Governments
Provincial Governments	Law and order, justice Highways and urban transports Agriculture extension and distribution of inputs Irrigation and land reclamation Secondary and higher education	Provincial Governments
Local Governments	Curative health Land development Primary education	
	Preventive health Farm to market roads Water supply, drainage and sewerage	Provincial/local governments

Source: Zaidi (1999) and Naveed (1996)

As the table 3.1 presents, the federal government performs the macro role, whereas the responsibility of the provincial governments is to provide the social services, including logistic services and infrastructure. It is also shown that the provincial governments often encroach into the jurisdictional responsibility of the local governments and perform the functions that otherwise are legislative domain of the latter.

3.3.1 REVENUES

In terms of revenue mobilisation, Pakistan being a centralist federation assigns majority of its revenue responsibilities to the federal government. The federal government collects more than 80% of total national revenues and shoulders 65% to 70% of total public expenditure. The second tier or provincial governments are entitled to raise 17% to 18% of total revenues while the local governments (municipal, districts and sub-districts) are raised hardly the remaining 2 to 3% revenues (Provincial Budget documents, various years). The federal government transfers the collected resources to the provincial governments through the National Finance Commission (NFC) Award[32], and these transfers include direct transfers, loans and credits, revenue shares of the provinces and special grants.[33]

The Federal Legislative List (FLL) of the 1973 constitution specifies taxes and duties that the federal government can collect. What is not included in the FLL is collected by either provincial or local governments.[34] Table 3.2 shows a breakdown of direct and indirect taxes collected by various tiers of government in Pakistan.

Table 3.2: Direct and Indirect Taxes: Federal, Provincial and Local Level

Government(s)	Direct taxes	Indirect taxes
Federal government	Income tax Corporate tax Wealth Tax Property tax	Sales tax Excise duty Imports duty Exports duty Gas and petroleum surcharges Foreign travel tax
Provincial governments	Land revenue Urban immovable property tax Agriculture income tax Capital gains tax Tax on professions, trades and callings	Stamp duty Motor vehicle tax Entertainment tax Excise duty Cotton fee Electricity duty

Source: Zaidi (1999)

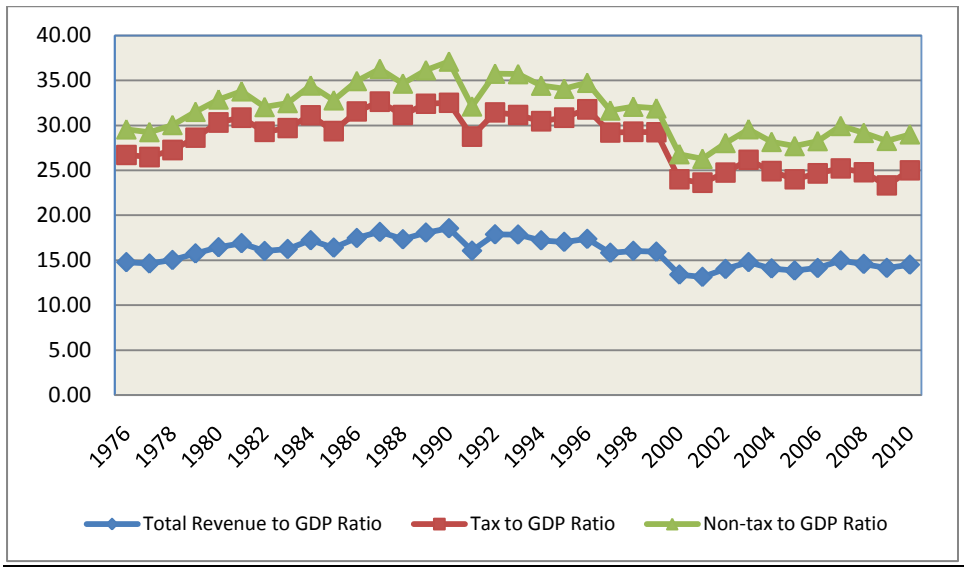
[32] The NFC is discussed in details in next chapter.

[33] NFC Award is a formula based mechanism of resource distribution between federal and provincial governments and among the provincial governments. Readers are advised to wait till next chapter when we will discuss all dimensions of NFC Award.

[34] The provincial governments have the power to make laws to delegate some of their legislative functions to the local governments, including tax collection.

Low tax-to-GDP ratio in Pakistan has been one of the weak characteristics of its economy, where on average the tax-to-GDP remained around 10%[35] (see figure 3.1). With the low tax-to-GDP ratio, Pakistan is one of those countries that have the lowest records in terms of tax revenue generation. Concerning the low tax-to-GDP ratio in the country, the World Bank (1988) emphasises that unless the country strengthens the tax base, she cannot mobilise resources enough to meet her expenditure obligations.

Figure 3.1: Trends of Revenue to GDP Ratio



Source: Handbook of Statistics on Pakistan Economy, State Bank of Pakistan (2010)

Figure 3.1 highlights that average tax revenue to the GDP has revolved around 11% over the last 35 years with lowest rate of less than 10% in 2010, notwithstanding introducing various tax reforms.

It is worth pointing out that the fundamentals of tax system in the country are full of loopholes and with low bases. In addition to this, the tax administration has also failed to bring the agriculture sector, a big part of service sector (capital gain is not taxed, for instance) and the influential class of Pakistani society – tribal lords, businessmen, wealthy politicians – under the tax net (Aziz, 2009). Certainly the tax structure in Pakistan needs a drastic reform but looking at the political economy of

[35] During 1950s average tax to GDP ratio was around 4 %. This low level ratio is largely attributed to narrow or weak industrial sector and restrained foreign trade in Pakistan in early decades (see Pasha and Fatima (1999) for a vigor discussion).

taxation one may observe that vested interests have always thwarted any kind of reforms that may challenge their privilege. Many scholars including Pasha (1995) believe that in the past all intended reforms in the tax system have been frustrated by the influential vested interests. The role of this class is succinctly underlined in these words by Pasha (1995):

> …behind each major tax exemption or concession there is a strong, entrenched vested group in Pakistan. Each group has organized itself as an effective lobbying entity. Which has not only blatantly demonstrated its power in political terms, but in more subtle terms also has played the game of patronage seeking through party donations, supporting influential politicians, etc., and developed credible arguments for the retention of these exemptions and fiscal incentives in the greater national interest (Pasha, 1995: 16).

Another tax loophole is the tax holidays granted to various industrial zones apparently to encourage new investments in specific regions, which was strongly supported by the industrialists and other interest groups in those regions. However, these free tax zones were failed to expand new business and investments. Instead these zones provided a safe haven to many businesses for not paying any taxes.[36] Thus, stagnant or even declining tax-to-GDP ratio in addition to the increasing domestic and international debt has limited the size and magnitude of public expenditures that could provide fiscal space to the government to increase or maintain economic stimulus.

Regarding the indirect taxes, more than 80% of total taxes are indirect, and a greater part of it comes from taxing the international trade, which not only discourages trade but promotes inefficiency and distortion. As table 3.3 presents, direct taxes constitute a small portion of total federal government taxes, in which income tax constitutes around 95% of it. It is of some interest to note that during 1980s the tax-to-GDP ratio has come down slightly, which was due to the declining share of federal excise duties and sales tax. Particularly the contribution of federal excise duties has come down from 4.6% of GDP in 1980[37] to 2.72% by the turn of the decade, since the

[36] See Hafiz Pasha (1995) "Political Economy of Tax Reforms: the Pakistan experience", Pakistan Journal of Applied Economics, vol. II, for a detail discussion on this issue.

[37] In 1980s the customs and excise duties were the predominant source of the revenue. In 1990s and 2000s the share of customs duties in particular and federal excise duties in general declined drastically to the total revenue of Pakistan. This decline, however, was largely compensated by income and sales taxes, respectively, and with the introduction of surcharges on gasoline commodities. Since the compensation was not fairly made, hence, the tax-to-GDP ratio has declined to 10.71 in fiscal year 2010-11 (Table 3).

excisable goods (tobacco, for instance) were produced in large quantity. In the following decade the custom duties were the only tax that grew continuously due to the *iqra* surcharges and increasing the tariffs on imports. Nevertheless, because of trade liberalisation and tariff reforms the custom duties consistently declined in subsequent decades.

Pasha and Fatima (2006) argue that the federal government enhanced the sales tax and incomes tax to compensate the customs duties declines. However, table 3.3 shows that notwithstanding the rise of income tax and custom duties, the tax-to-GDP ratio has constantly declined over the last three decades. Thus, regardless of the readjustment of tax revenues the country failed to stop the declining trend of the tax-to-GDP ratio. Table 1.A in appendix A supports this argument that provides the details of share of revenues from different sources.

Income tax in Pakistan has traditionally been low and unsustainable. Traditionally income tax is more progressive and has lesser effect on those who are on the lowest ladder in society. Hence, in Pakistan income tax should have contained a higher portion to total tax where the income inequality is very high. Zaidi (1999) explains the reasons of low income tax in the following words:

> The income tax suffers from numerous deficiencies. There is a very poor coverage of taxpayers, a narrow tax base is riddled with exceptions and exemptions, and the income tax procedure is badly integrated with company law. The large number of exemptions has traditionally been justified as incentives for investment, saving, exports, regional development etc…..it is estimated that the evasion of income tax is almost five times the collected amount. Hence, the collection of income tax has remained restricted largely to the industrial and financial sectors, to public limited companies and multinationals, to corporate profits and salary income and to the metropolitan cities of Pakistan (Zaidi, 1999: 216).

3.3.2 EXPENDITURES

As indicated in table 3.4, the expenditure as percentage of GDP increased from 16.21% in 1979-83 to 21.42% in 1984-1988. Two main heads of public expenditure - defense and debt serving – were the prime reason for this significant jump in expenditure-to-GDP ratio. Defense spending contains a hefty proportion of the national income largely at the expense of core social sector, as indicated in table A.2 in appendix A. During 1980s and early 1990s the defense expenditures show a

considerable increase largely due to the direct military government regime in Pakistan and partly due to the Soviet forces invasion in neighboruing country of Afghanistan. Contrary to the popular belief, defense expenditure pattern did not change after the restoration of democratic dispensation in 1988. During 1989 to 1993 the defense expenditure has remained as high (7.33% of GDP) as it had been in preceding decade.

However, this trend decreased in second part of democratic period (1994-1999). Pasha and Fatima (2006) give the following reason for defense expenditure rises in first part of 1990s:

> ….during the initial first or two years in office, democratic governments tend to reduce this ratio as they perhaps feel sufficiently secure. It starts increasing when they begin to experience intensifies political opposition that they tend to increase the defense expenditure-to-GDP ratio, as the first Benazir government did in 1989-90 and the Nawaz Sharif government did in 1992-93 (Pasha and Fatima, 2006: 215).

The government expenditure on general administration accounts around 1% of the GDP, which has not been utilized efficiently due to the presence of large scale corruption and mismanagement.[38] It is also important to note that the share of expenditure on social, economic and community services that is not only low but showed a declining trend over the decades. For instance, expenditures on community services declined from 0.32% of GDP in 1979-1983 to 0.21% of GDP in 1999-2003. Similarly, the social services expenditures were cut back to 0.29% of GDP in 1999-2003 from 0.50% of GDP in 1979-1983. Economic services expenditure also experienced a decline from 0.54% of GDP in 1979-1983 to mere 0.21% of GDP in 1999-2003 (table 3.4).

Expenditures on economic and social services were the first victim when the country started downsizing her national budget size in 1980s that further accelerated in subsequent decades when international financial institutions pushed Pakistan hard to reduce the size of the government to narrow down the fiscal deficit. Expenditures on economic and social services were the first victim when the country started

[38] Ali (2011) "Pakistan Development Challenges: federalism, security and governance", provides a comprehensive elaboration of this issue.

Table 3.3: Tax to GDP ratio (Overall and For Individual Taxes of The Federal Govt.)

Year	Direct Taxes						Indirect Taxes						Total Tax-to-GDP ratio
	Income Tax	Corporation Tax	Wealth Tax	Gift Tax & Estate Duty	Workers Welfare Tax	Capital Value Tax	Customs Duties	Federal Excise Duties	Sales Tax	Surcharge	Stamp-non Judicial	others	
1979-1983	1.972	0.570	0.039	0.006	0.011	0.000	5.646	4.131	1.115	0.595	0.002	0.000	14.086
1984-1988	2.084	0.036	0.001	0.000	0.013	0.000	6.068	3.397	1.218	0.000	0.000	0.000	12.816
1989-1988	2.291	0.010	0.035	0.000	0.050	0.000	5.887	2.888	1.992	0.000	0.000	0.000	13.152
1994-1998	3.586	0.000	0.101	0.000	0.033	0.037	4.133	2.537	2.403	0.000	0.000	0.000	12.831
1999-2003	3.216	0.000	0.058	0.000	0.107	0.022	1.693	1.441	3.641	0.000	0.000	0.000	10.178
2004-2008	3.246	0.000	0.000	0.000	0.104	0.051	1.711	0.845	3.945	0.000	0.000	0.009	9.911
2009-2010	3.854	0.000	0.000	0.000	0.108	0.043	1.299	0.949	3.905	0.000	0.000	0.378	10.536

Source: Handbook of Statistics on Pakistan Economy, State Bank of Pakistan (2010)

downsizing her national budget size in 1980s that further accelerated in subsequent decades when international financial institutions pushed Pakistan hard to reduce the size of the government to narrow down the fiscal deficit. The reduction of these expenditures in the interest of debt serving mainly has led to reduce the already marginalised social and economic services that adversely affected human development particularly the poor.

Another noticeable point in table 3.4 is the low expenditure to GDP ratio, despite the fact that Pakistan is not only a developing country but a clientelist state. It seems astonishing given the high and burgeoning defence expenditure and soaring debt servicing. One of the reasons of this low ratio may be due to the "disguised military expenditures" which are not recorded in the national budget, therefore, are not reflected in federal government's total expenditures to GDP ratio. Second, and perhaps the most convincing, reason is that since the federal government does not undertake the majority of social sector expenditures and development expenditures hence federal's government expenditure to GDP ratio obviously should not be high. It is important to note that federal government maintains three fourth of total national expenditures (This will be shown latter on this thesis). Considering these factors the low expenditure to GDP ratio, therefore, may not be surprising.

Moreover, table 3.4 also indicates that the development expenditure-to-GDP ratio witnessed a perpetual decline from 1979 to 2003. Particularly, during the 1990s and first three years of last decade not only the development expenditure to total GDP ratio declined, the share of development to total expenditure has also came down to 0.63% of GDP during 1999-2003. The development expenditure has increased since 2003 and reached to 2.13% of GDP in 2009-10. But it is still less than what it was during 1979-83. No matter how we look at it, it is extremely low for the country to develop her physical infrastructure of all the sectors of the economy.

3.4 PUBLIC SECTOR CONSTRAINTS

Elite monopoly and corruption pose serious challenges to the effectiveness of public sector in Pakistan because they cause the public expenditures to divert to more unproductive and regressive projects with adverse impact on overall budgetary position. For instance, despite looming budget deficit and poor resource generation

Table 3.4: Expenditure To GDP Ratio (overall and for Individual Exp. of the Fed. Govt.)

Year	Current											Development Expenditure	Total exp. To GDP ratio
	General Administration	Defense	Law & Order	Community Services	Social Services	Economic Services	Subsidies	.Debt Ser., Investible Funds and Grants	Grants to Provinces	Un-allocable	Others		
1979-1983	0.75	6.35	0.40	0.32	0.50	0.54	0.90	4.16	0.00	0.00	0.00	2.28	16.21
1984-1988	1.05	7.63	0.40	0.34	0.68	0.39	0.78	7.98	0.00	0.05	0.00	2.11	21.42
1989-1993	0.93	7.33	0.41	0.30	0.66	0.33	0.91	7.87	0.59	0.21	0.00	1.95	21.49
1994-1998	0.97	5.99	0.36	0.26	0.46	0.12	0.31	8.69	0.58	0.27	0.00	1.00	19.02
1999-2003	1.01	4.00	0.25	0.21	0.29	0.20	0.60	8.25	1.01	0.41	0.00	0.63	16.86
2004-2008	N/A	3.24	N/A	0.00	0.00	0.00	0.00	2.11	0.00	0.00	10.18	1.92	17.45
2009-2010	N/A	2.65	N/A	0.00	0.00	0.00	N/A	N/A	0.00	0.00	11.46	2.13	16.24

Source: Handbook of Statistics on Pakistan Economy, State Bank of Pakistan (2011) and author own estimates

the military expenditure consumes on average one-third of the total national budget over the years (Pakistan, various issues). Given the budgetary constraints and high non-development public expenditures successive governments were forced to keep low target or reduce the investments on social sector (health and education are the key example), physical infrastructure (roads, bridges, ports etc.) and poverty alleviation projects (such as Pakistan Poverty Alleviation Funds). It indicates "an unproductive fiscal priority" is largely brought in place in order to accommodate the interests of specific vested groups rather than the public in general.

Moreover, whatever development expenditure has been carried out, the selection criteria for the majority of public sector projects may not adhere to the needs and preferences of the targeted groups. Consequently these projects remain fail to provide adequate and effective social services. Thus, the over-centralised institutional structure and weak planning, implementing and monitoring mechanism has led to misappropriating the social services provisions that encouraged the supply-driven rather demand driven approach. Supply is channeled in accordance with the responsiveness to the recipients. The centralised planning system has perhaps failed to identify the projects consistent with the needs of targeted communities. Housing schemes and credits for agricultural machinery in 1990s are the prime examples of misplaced priorities. Massive leakages and misappropriations of public funds almost always end up in the pockets of the established elites (See Fatima and Ahmed, 2001; Bengali and Ahmed, 2001; Hasnain, 2008).

Bengali (2002) believes that in order to run the wheal of social sector effectively the public sector functions need to be decentralised to the provincial and local government level. The main stream literature on fiscal federalism also supports the assertion for the demand of greater decentralisation of core public sector investments. Oates (1972) for example shows that the sub-national governments with sufficient amount of funds and developed institutional capacity are far more effective in public service delivery. This argument is based on the strong assumption that such expenditure if undertaken by the decentralised governments with better local knowledge will be tailored to the needs and preferences of targeted people.

Another important factor that potentially influences the effectiveness of public sector in key services delivery in Pakistan is the bureaucratic and political corruption. The

negative impact of such corruption on welfare is widely noted (Khan, 2001). The bureaucratic corruption, which refers to kind of corruption engaged by the public sector/state employees, considers being a serious impediment to social services delivery. Because bureaucrats are the executive arms of the state, and their involvement in corruption leave a serious negative impact on social services delivery and social and economic regulations. Similarly, political corruption refers to a kind of corruption that politicians/political representatives are engaged in. In Pakistan both political representatives and bureaucrats interlock and collide in corruption by facilitating one another. No matter who initiate the corrupt initiatives, whether political representatives direct government officials to indulge in corruption which benefits politicians and their clients or government officials take the initiatives and involve political representatives in order to avoid state sanctions - in both cases, this widespread interlocking adversely affects the social services delivery. The collaboration of bureaucrats and political representatives in engaging in corruption, suggests that unless both types of corruption (bureaucratic and political corruption) are addressed simultaneously, the sustained reduction of corruption overall is very much unlikely. Certain specific policies may be initiated or supported in order to bring political representatives and bureaucrats accountable to the people. These policy initiatives include democratisation and civil society participation, decentralisation and devolution among others.

Several political economy models (like Bourguignon and Verdier, 1999) suggest that the reasons of poor social services delivery has lot to do with the political economy structure of that country. The political economy structure of Pakistan which is dominated by elite is a typical case of what has been shown in such type of political economy models. Specifically, the landlords who are the prominent part of this "oligarchy" have an influential and strong clout over political structure in rural Pakistan. The landlords are very likely to oppose wide spread social service delivery, particularly the provision of education. That is because educated masses inherently demand political power, which consequently weakens the stranglehold of strong landlords on political economy of Pakistan. Another important point to mention here is that large landlords would have least interest to tax themselves in order to pay for the social services delivery cost, which largely benefits the poor and less-advantaged.

Another key political economy aspect that hampers social services delivery is the link between the latter and ethnic fractionalisation in Pakistan. Alesina et al (1999) find that in ethnically diverse societies less resource is devoted to public service delivery. Moreover, the ethnic fractionalisation also leads to have weak institutions. Manro et al (1995) also show that ethnic diversity causes poor quality of governance and encourages corruption. Pakistan's social structure with social backwardness and high fractionalisation predicts that the ethnic diversity impedes effective and better social services delivery. The political economy of the country is dominated by one ethnic group, which has least interest to provide social services to other ethnic groups within Pakistan. That is because in case of widespread social services delivery, all ethnic groups may benefit, if not equally, from public services, which may not suit the political and economy interests of the dominated ethnic group.

3.5 PARTICIPANTS OF FISCAL DECISION MAKING

The political and economic affairs of Pakistan are predominately controlled by the 'establishment'. The latter ties up together high ranks military and civil bureaucracy personnel, key members of the judiciary, big landlords and other elites (Cohen, 2005). Like other major issues of the economy, these agents also play the central role in shaping the fiscal policy. In addition to this, because of the heavy dependence on foreign lending for assistance on International financial institutions (IFIs) and donor countries, the fiscal policy also incorporates the directions and suggestions of these institutions. Additionally, Waheed (2001) believes that courts and media also have an influential role in fiscal decision making. Ahmed and Amjad (1984) include students and labour unions in the fiscal decision making. Although the latter groups historically influenced the fiscal policy making of the country, our research shows that over the time they have become marginalized. Currently they are unable to exert any meaningful pressure to change the course of the fiscal decision making in their favour. Thus, they may not be considered as effective players in fiscal policy making.

The *military* that ruled country for most of the period of its existence left its influence on every aspect of her political economy. Waheed (2001) argues that even during civilian rules, which intermitted the military regimes, the military behind the scene played not only a significant power broking role but had a paramount fiscal

decision making power. Supporting the same argument Khan (2003) suggests that military is the most important decision making body, be it the fiscal or political decisions, irrespective of its being in power or not. Looking at evidence of the military expenditure, on average, it increased at the rate of 10% in each fiscal year since 1950s (Pakistan, various issues),[39] highlights the military's vital role in fiscal policy making. The military establishment has remained influential in directing the politicians and civilian bureaucrats in an authoritarian and uncoordinated manner to ensure funneling public finance to the military's big businesses like Askari Bank and National Logistic Cell (Siddiqa, 2007).

Second important player in fiscal policy making is the *political class*. Due to the frequent military intervention in political and economic affairs of the country, the political culture has failed to take strong roots, and the political culture in turn encouraged the politicians to join direct military dictatorship or military-engineered democratic dispensations to gain and retain office in order to expedite or preserve their vested political and economic interests. Therefore, the politicians intend not to challenge the prime decision maker, the military, in fiscal policy decision making. While in office, the politicians are only ostensibly in charge of budget making, in fact they leave the core policy decisions to the military. Instead, they are more interested in safeguarding and promoting their personal privileges and ensuring to prolong their incumbency. Therefore, the politicians' role in fiscal policy making has not been growth and development oriented so far. Rather it has been confined to ensuring their maximum opportunity of public fund embezzlements and personal gains.

Another important thing to note regarding politicians' role in fiscal decision making is owing to the fact that the latter are not accountable to their constituents. Khan (2003) believes this is because of the excessive role of the undemocratic institutions in country's political economy. Therefore, the politicians are less interested in such public policy making that leads to boosting economic growth, creating jobs and economic development.

[39] In terms of its share to GDP, the defense expenditure in Pakistan is the highest in the region. See Hasan (1998) and Siddiqa (2007) for more details.

Fiscal policy is largely reflected in annual budget, and the latter is constitutionally the responsibility of *ministry of finance and planning commission*. The role of ministry of finance and planning commission in fiscal policy is more professional and technocratic. The main function of the ministry of finance is to protect the state treasury, prepare federal government annual budget and pursue economic policies aiming to ensure the macroeconomic stability. However, professional role of the ministry of finance is often succumbed to the political and institutional needs of the ruling elite. Some policies suggested by the elites may have populist support but not necessarily be viable economically. Consequently the politically motivated decisions couple with frequent bureaucratic interventions have largely overshadowed professionalism of the ministry and impeded its role in providing a coherent, sound and sustainable fiscal policy.

The planning commission compare to ministry of finance is a young body and has gone through major transitions since 1958, when it was first established. It is a highly technical body which composed of technical members whose expertise ranges from various specialised fields in social sciences with diverse approaches and capabilities. During the initial years of its establishment, particularly during 1960s, the commission played a central role in the economic development in the country in terms of setting the strategy for transforming economy into a rapid industrialisation. However, in following years it lost its scope for central planning and competency of its personnel (Root, 2010). The commission has been failed to provide guidance to the federal government regarding the country's wider planning issues related to sustainable macroeconomic and socio-economic development. To Ahmed and Amjad (1984), and Ansari (2001) the prime culprit for making the planning commission's role dysfunctional has been the ruling political and military class that has consistently intercepted into its working to gain personal or departmental favour often at the cost of greater economic development requirements.

Another important participant in fiscal policy making is *bureaucracy*; bureaucracy is essential for smooth functioning of government machinery in any country (Shafqat, 1999). The main function of bureaucracy is to ensure the implementation of decisions that are made by the incumbent government. Theoretically the role of bureaucracy in Pakistan is to carry out the policy enacted by the government, like in any other country, but in practice it is not only limited to the delivering policies,

instead it also has gained over the years a significant role in policy making for itself. As the bureaucracy not elected but recruited permanently as civil servants is not accountable to the public. Therefore, it is very unlikely that policy making decisions of the bureaucracy reflect the aspirations of general public (Kennedy, 1987; Shafqat, 1999).

IFIs also play a pivotal role in fiscal policy making by the virtue of their large amount of funding provided to Pakistan for budgetary support and other development projects. More than 80% of total multilateral aids to the country came from The World Bank, International Monetary Fund (IMF) and Asian Development Bank (ADB) (Anwar, 2006). The World Bank's (2004) statistics show that Pakistan is among the top 10 aid recipients of the Bank, which makes the latter the largest external financial source of the country. The second largest source has been the ADB. The ADB (2002) places Pakistan the second largest borrower of the Bank after Indonesia.

The majority of lending from these institutions fed programmes like Structural Adjustment Programmes and, Social Action Programmes, which are aimed to reform financial sector, widen the tax net, reduce unproductive public expenditures and narrow down the twin deficit – trade and budget deficits.[40] The IMF that has a great deal of influence in fiscal policy making, entered into the picture in 1988, when the first agreement between the IMF and Pakistan was made.[41] Ever since, the country signed numerous tranches with IMF, which mainly seek to cushion the balance of payments related problems.

The IFIs not only play a major role in rescuing the country from balance of payments problems and supporting its structural adjustment matters, they also have a significant role in fiscal policy orientation of Pakistan. This argument is supported by the fact that most of the federal finance ministers, during civilian and military regimes alike, hailed either from the World Bank or the IMF. For example, Mehbul Haq, former Director of the World Bank, was the Finance Minister in 1988, Sahid Javed Burki, Vice-President of the World Bank, was the Finance Minister during

[40] See Anwar (2006) "Structural Adjustment and Poverty: The Case of Pakistan", for positive and adverse role of IFIs in social and economic sector of Pakistan.

[41] Though Pakistan signed an agreement for the time in 1958 with IMF, but due to reasons not known to author, the agreement was not materialized.

1990s, Moen Qureshi, Senior Vice-President of the World Bank was the caretaker Prime Minister of Pakistan in 1993 and Dr. Afeez Sheikh, country Director of the World Bank, is the incumbent Finance Minister. The appointment of these officials as the in-charge of finances in Pakistan has largely been seen as a part of the conditionality that the IFIs attach when they embark upon a financial agreement with Pakistan. Thus, it may arguably be asserted that these institutions have a good maneuvering power in fiscal policy making in Pakistan.

The functionalities of *businesses* as an organised pressure group in the country are very much ineffective due to its inefficient and disarray organisational structure. However, major business organisations like professional Chambers and Bourses have a small role in fiscal policy making, and have the potential to thwart certain policies undermining their interests. For example, because of the fierce resistance from business organisations, the capital gain tax despite attempts by successive governments has not been implemented yet.

3.6 THE POLITICAL ECONOMY OF PUBLIC SECTOR DEVELOPMENT

The social sector in Pakistan is weak and dysfunctional, which made the country a classic example of 'economic growth without development' where a decent rate of economic growth has been achieved without adequate social sector development. Over the last 63 years, the country has not been able to progress in all dimensions of social sector development. The poor state of social sector has been largely due to the failure of the country to translate the fruits of economic growth for the improvement of the majority of the people. It is understandable that with such underdeveloped social sector – with low level literary rate and poor and inadequate healthcare services, for instances – the country would not sustain a decent economic growth. Pakistan seems to have failed to understand the fact that high and sustain economic growth depends on highly skilled, healthy and educated workforce, as suggested by new growth theories and exercised by many countries. For instance, the growth and development experience of countries, like Korea, Thailand, Malaysia and Singapore, uncovers the striking fact that without social sector development economic growth is very unlikely to sustain itself. In comparison to these countries Pakistan lags far behind in almost all indicators of social and human development.

Table 3.5: Comparison of HDI's Trends of Selected Countries

Country	1980	1985	1990	1995	2000	2003	2004	2005	2006
Pakistan	0.386	0.441	0.443	0.463	0	0.518	0.526	0.548	0.562
India	0.428	0.456	0.494	0.517	0.561	0.576	0.585	0.6	0.609
Morocco	0.471	0.497	0.516	0.56	0.582	0.626	0.631	0.638	0.646
Indonesia	0.52	0.56	0.623	0.567	0.671	0.709	0.714	0.719	0.726
Thailand	0.644	0.663	0.692	0.721	0.75	0.764	0.772	0.782	0.786
Vietnam	0	0.559	0.595	0.645	0.688	0.703	0.709	0.714	0.718
Egypt	0.843	0.539	0.572	0.628	0.665	0.704	0.709	0.712	0.716

Source: Human Development Indices, UNDP (2006)

Table 3.5 Indicates that Pakistan's position in terms of the DHI is one of the lowest in comparison to countries with similar classification of per capita income by the World Bank. For instance in 2006 the HDI in Pakistan was 0.562, which is the lowest in all seven included countries in the survey.

Among the social indicators, education and healthcare are considered to be very important for the overall development of society. In the following sub-sections we describe the state of education and health in Pakistan.

3.6.1 EDUCATION

In modern world a nation without sound and decent education lags far behind in every aspect of socio-economic and human development irrespective of her possession of natural endowment. Those who have ignored the importance of education have been failed in reaping the economic opportunities. In a country like Pakistan where ethnic fractions and social diversity is starkly high, the pivotal role of education in order to scale down the social and ethnic strife is undeniable.

Pakistan's performance in the field of education has been very poor throughout her history. Although Pakistan declared education-for-all as her prime goal in very first year of inception (1947), but the budgetary allocations for all those proceeding years show that education has attracted the least attention. Average education expenditure as percentage of GDP has remained 0.8%, 2.3% and 2.1% during 1980s, 1990s and 2000s, respectively (Pakistan, 2009-10), which is much lower than its regional neighbours: during 2000s the average expenditure in India is 3.3%, Bangladesh 2.6%, Indonesia 3.5%, Iran 5.2% and Nepal 3.2% of their respective GDPs (World

Bank and UNDP, 2010). According to official statistics, which though invite much skepticism, the current literacy rate in Pakistan is 57% (Pakistan, 2009-10), much is lower than those countries similar to Pakistan in 1947. For instance, countries like, Sri Lanka with very low per capita income ($818 in 2010), and Vietnam even further lower income ($392 in 2010) have 90.6% and 92.5% of literacy rate, respectively (World Bank, 2011).

Literacy Rate: Pakistan Social and Living Standards Measurement Survey, 2008-09 reports the male literacy rate in Pakistan is 69% compare to it female counterpart, which is only 45%. Another striking fact comes from these data is the revelation of rural-urban differentiation or in terms of literacy rate: in urban areas the literacy rate remains well above 74%, while in rural areas it is just 48%. In addition to this, the differentiation is not confined to the geographical areas but it also engulfs the genders, which is showed in table 3.6.

As table 3.6 points out, there is a wide variation in literacy among the provinces. In the province of Punjab, the overall literacy rate stands at 59%, while in Balochistan it is only 45%. The same table shows that literacy rate is pace has been high in provinces of KP and Sindh over the last couple of years. In Sindh province, for example, the literacy has increased from 51% in 1989-99 to 59% in 2008-09. Similarly, in KP it increased from 37% in 1998-99 to 50% in 2008-09. Female literacy rate particularly in two of the four provinces - KP and Balochistan - has remained dismally low with only 31% in the former and 23% in the latter, which probably would be one of the lowest rates in World over.

Gross Enrollment Rate: The Gross Enrollment Rate (GER) or school participation is the ratio of the children who attend the school to total number of children in entire country. The GER in Pakistan has increased by 20 percentage point within 10 years period from 71% in 1998-99 to 91% in 2008-9 (Table 3.6). Female enrolment, though increased from 61% to 83%, lagged far behind its male counterpart: the male enrollment was at 99% in 2008-09. The province of Balochistan portraits a very gloomy picture in terms of female GER where it has hardly reached to 54%, which is far behind compares to other provinces: in the Punjab, Sindh and KP respectively the female GER is 92 %, 75% and 70%.

Table 3.6: Literacy rate 10 and above, GER and NER trends, GPI

Region/Province		**Literacy rate (10 years and above)**							**GER* primary (5-9)**						
	Years	**1998-99**	**2001-02**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**1998-99**	**2001-02**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Pakistan	Male	59	58	65	65	67	69	69	80	83	94	94	99	97	99
	Female	31	32	40	42	42	45	45	61	61	77	80	81	83	83
	Both	**45**	**45**	**53**	**54**	**55**	**56**	**57**	**71**	**72**	**86**	**87**	**91**	**91**	**91**
	Rural			44	44	45	49	48			79	80	83	85	82
	Urban			71	71	72	71	74			104	104	106	106	106
	GPI					0.63	0.64	0.65					0.82	0.86	0.83
Punjab	Male	57	57	65	66	67	70	69	82	84	100	98	106	102	102
	Female	34	36	44	47	48	48	50	68	69	89	89	95	92	92
	Both	**46**	**47**	**55**	**56**	**58**	**59**	**59**	**75**	**76**	**95**	**94**	**100**	**97**	**97**
	GPI					0.72	0.69	0.61					0.9	0.9	0.9
Sindh	Male	65	60	68	67	67	69	71	75	76	84	88	88	87	93
	Female	35	31	41	42	42	42	45	54	51	65	71	68	72	75
	Both	**51**	**46**	**56**	**55**	**55**	**56**	**59**	**64**	**63**	**75**	**80**	**79**	**80**	**84**
	GPI					0.63	0.61	0.63					0.77	0.83	0.77
KP	Male	56	57	64	64	67	68	69	84	97	93	93	96	94	102
	Female	20	20	26	30	28	33	31	54	56	65	70	67	71	70
	Both	**37**	**38**	**45**	**46**	**47**	**49**	**50**	**70**	**77**	**80**	**83**	**82**	**83**	**87**
	GPI					0.42	0.49	0.45					0.45	0.7	0.75
Balochistan	Male	54	53	52	54	58	66	62	79	77	83	79	62	89	88
	Female	16	15	19	20	22	23	23	46	44	49	50	52	59	54
	Both	**36**	**36**	**37**	**38**	**42**	**46**	**45**	**64**	**62**	**67**	**65**	**72**	**75**	**75**
	GPI**					0.38	0.35	0.37					0.58	0.67	0.55

Continued on next page

Region/Province	NER** Primary (5-9)						
	Years	**1998-99**	**2001-02**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**1008-09**
Pakistan	Male	47	46	56	56	60	59	61
	Female	37	38	48	48	51	52	54
	Both	**42**	**42**	**52**	**53**	**56**	**55**	**57**
	Rural			48	47	52	51	53
	Urban			64	65	66	66	68
	GPI					0.85	0.88	0.87
Punjab	Male	47	47	60	60	64	62	64
	Female	40	43	55	53	59	59	60
	Both	**44**	**45**	**58**	**57**	**62**	**61**	**62**
	GPI					0.92	0.95	0.94
Sindh	Male	47	46	53	54	56	55	57
	Female	35	34	42	47	43	46	49
	Both	**41**	**40**	**48**	**50**	**50**	**51**	**54**
	GPI					0.77	0.84	0.8
KP	Male	47	48	53	54	56	55	58
	Female	30	33	40	42	41	41	45
	Both	**39**	**41**	**47**	**49**	**49**	**49**	**52**
	GPI					0.73	0.75	0.64
Balochistan	Male	44	39	44	39	49	47	51
	Female	28	24	29	27	32	35	36
	Both	**36**	**32**	**37**	**34**	**41**	**41**	**44**
	GPI**					0.65	0.74	0.64
Source: Economic Survey of Pakistan (2009-10), PSLAM (2008-09, 2006-07 and 2004-05)								
*GER is Gross Enrolment rate, ** NER is Net Enrolment Rate and *** GPI is Gender parity Index								

Net Enrollment Rate: The Net Enrolment Rate (NER), which measures the overall school attendance[42], does not show a good picture in Pakistan. Albeit, the NER has marked an increasing trend during the last 10 years (1998-99 to 2008-09), where in overall Pakistan it increased from 42% to 57%, but in comparison to the other regional countries Pakistan is left far behind in terms of NER. Among the provinces Punjab showed a decent growth rate in NER of 22 percentage point during 1998-99 to 2008-09 period, while, Balochistan could increase its NER by only 8 percentage point, from 36 to 44, during same period of time (see table 3.6).

One of the prime reasons for low literacy rate in Pakistan is due to the lack of attention to its female education. The latter has not only remained dismally low, but it also left a negative consequence on overall education in the country. From the **Gender Parity Index (GPI)**, which is the ratio of female to male enrolment rate, one can easily judge the gender parity in Pakistan. Among provinces, the GPI is highest in Balochistan with 0.64 (table 3.6).

Education: Some Critical Issues: The deteriorated state of education in Pakistan created a wider debate and concern among the development economists, and national and international policy circles. Though education has not been the priority of any government in Pakistan, during Zia-ul-Haq era the sector suffered the most (Cohen, 2006). Zia-ul-Haq was convinced that scholarship and rationale thinking that may come from colleges and universities would make an insurmountable challenge to his dictatorial regime. Moreover, during his regime, the public sector schools were used for his islamisation process of the entire society. And the higher institutions (colleges and universities) were politicised, and consequently turned them into a hot bed of conflicts among the hostile rival student groups.

A deeper look into the budgeting of education in Pakistan discloses that education has not only been underinvested and ignored during dictatorial regimes, but during interregnums of democratic dispensation negligence to education along with other social services continued. For instance, during the 1990s, education expenditure to GNP was 2.3% (Pakistan, 2009-10).

[42] NER is the ratio of students (between the ages of 5-9) who are enrolled in any primary school (both public and private) to total children of that age (Pakistan, 2009-10).

However, during Benazir Bhutto's second tenure (1993-1996), female education particularly in least developed province of Balochistan received a considerable attention. It is worth pointing out that according to some estimates Balochistan with weak or no female education infrastructure witnessed the lowest female literacy rate in the World in the early 1990s.[43]

The country has a class-based education structure and runs at least four different types of systems in parallel. At the lowest rug comes the *madaress* (religious schools) which are networked with masques and run by various religious groups/parties. The *madaress'* graduates with weak or no modern skills are not absorbed in the job market (both public and private), therefore, majority of them would become *ulema* (religious teachers in the same *madaress* in itself). In addition to this, there are the public schools which accommodate around 72% of total enrolled students in Pakistan (Pakistan, 2008-09). Kizilbash (1998) argues that virtually 25% of teachers in public sector schools are totally un-trained, which couple with weak infrastructure, weakens the already deteriorated quality of education.

Besides *madaress* and state run schools, Pakistan also has a tremendously increasing numbers of privately run English Medium schools in the cities, town and even in some villages. The country also has inherited a decent number of elite schools and colleges from the time of Colonial past, which were built during the British Raj by Christian Missionaries and the British India government. These institutions were purposely built to educate the aristocracy and to train personnel for civil and military establishment of Colonial government. After the end of the British rule in the Sub-Continent, these institutions kept their standard intact, but only accessed by the members of the establishment and aristocracy (Kardar, 1998; Cohen, 2006).

3.6.2 HEALTHCARE

Universal Declaration of Human Rights (UDHR) declares that everyone has a right to "a standard of living adequate for the health and well-being of himself and of his family" (The UN, Article 25). Pakistan being a member of the declaration spells out the importance of the health in her constitution in following words, "the State shall

[43] Some independent researchers like (Jalil Nasir, 1998) suggest that in early 1990s the literacy rate in Balochistan was only 2%, which is the lowest in the World. However, official sources in Pakistan would deny this argument.

secure the well-being of all people by raising their standard of living and shall provide basic necessities of life, such as food, clothing, housing, education and medical relief for all such citizens as are unable to earn their livelihood by reason of disease, infirmity or unemployment" (Constitution, 1973).

Looking at the health statistics of Pakistan, one may observe a considerable progress in health sector for last many decades. As table 3.7 indicates all indicators have continued to increase from 1960 to 2009. For instance, life expectancy at birth for female has increased from 46.8 years in 1960 to 65.8 year on 2009, a considerable 19 years difference. The total life expectancy at birth has increased from 46.6 years in 1960 to 65 years in 2009 that means currently an average Pakistani can live 18.4 year longer than in 1960. Another noticeable progress made in health sector is in terms of Crude Death Rates (CDR) and Infant Mortality Rates (IMR). The former has decreased by 42% - from 13 crude deaths per 1000 in 1960 to 7.6 in 2009 -, while the latter has fallen down by 48% - from 131 infant deaths per 1000 in 1960 to 68 death per thousand in 2009.

Similarly, apparently per capita health expenditure witnessed a substantial jump from 0.46 rupees in 1950 to 257.40 rupees in 2005(table 3.9). Nevertheless, considering the average inflation of 6.89% (SBP, 2010), during the same period this increment is not enough in meeting the health requirements of all citizens.

Table 3.8 presents the infrastructure facilities or the curative side of the health facility provided in Pakistan. The number of hospital and dispensaries has made a tremendous growth - increase from 304 and 807 in 1950 to 968 and 4813 in 2009, respectively. Also, the population per bed availability has decreased by more than twofold: decreased from 2431 in 1950 to 1592 in 2009. Similarly, a noticeable progress has also been made in the availability of total dispensaries and maternity and child health centers, basic health units and regional health centres particularly for rural dwellers. However, table 3.9 indicates that health expenditure as a percentage of GDP, which underlies the importance of health sector in public policy making, presents a gloomy picture.

Table 3.7: Trends of Key Health Indicators – 1960 to 2009

Year	1960	1961	1964	1967	1968	1969	1971	1976	1979	1984	1986	1988	1990	1993	1995	1997	1998	2000	2001	2005	2008	2009
Life expectancy at birth, female	46.8	47.5	49.5	51.4	52.1	52.7	53.9	56.6	57.9	59.7	60.3	60.9	61.5	62.3	62.8	63.3	63.5	64.0	64.2	64.9	65.6	65.8
Life expectancy at birth, male	46.5	47.1	49.2	51.2	51.8	52.5	53.7	56.2	57.2	58.6	59.1	59.6	60.1	60.8	61.3	61.8	62.0	62.4	62.6	63.3	63.9	64.1
Life expectancy at birth, total	46.6	47.3	49.3	51.3	51.9	52.6	53.8	56.4	57.6	59.1	59.7	60.2	60.8	61.6	62.0	62.5	62.7	63.2	63.4	64.1	64.7	65.0
Crude Birth Rate		51.0	41.0		36.0	36.0	37.0	42.8	41.6	43.3	43.3	40.5	40.6	39.9	37.2	33.8	32.7	30.2	28.7	26.1	28.7	28.4
Crude Death Rate			13.0		12.0	12.0	11.0	11.5	9.6	11.8	10.1	10.8	10.6	9.9	9.4	9.0	9.1	8.3	8.2	8.2	7.7	7.6
Infant Mortality (per thousands)		131.0	136.0	121.0	124.0	111.0	106.0	87.0	95.0	127.0	106.0	108.0	105.0	100.0	93.0	84.0	81.5	79.8	77.1	77.0	70.2	68.2

Source: World Bank, Pakistan; Research Department, SBP and Economic Survey (various issues)

Table 3.8: National medical and health Facilities

(Progressive Numbers)

Year	Hospitals	Dispensaries	BHUs and sub health centers	Maternity & child Health Centers	Rural Health Centers	TB centers	Total Debs	Population Per Bed
1950	304	807	-	107	-	-	14,524	2,431
1955	333	984	-	198	-	-	19,197	2,077
1960	342	1,195	-	384	-	-	22,100	2,038
1965	379	1,695	-	554	-	-	25,603	2,022
1970	411	1,875	-	668	-	-	28,976	2,061
1975	518	2,908	373	696	134	89	37,776	1,852
1980	602	3,466	736	812	217	98	47,412	1,716
1985	652	3,415	2,647	778	334	100	55,886	1,699
1990	735	3,714	4,213	1,057	459	220	72,997	1,444
1995	827	4,253	4,986	859*	498	260	85,805	1,416
2000	876	4635	5,171	856*	531	274	93,907	1,456
2005	919	4,632	5,334	907	556	289	101,490	1,483
2009	968	4,813	5,345	906	572	293	103,708	1,592

*. The decrease in MCH since 1993 onward as against previous years is due to exclusion/separation of Family Welfare Centers from MCH structure in NWFP

Source: FBS 50 Years of Pakistan in Statistics and Economic Survey of Pakistan 2009-10

Although it increased from 0.08% of GDP to 0.54% of GDP between 1950 and 2009, with more allocation during the decades of 1970s and 1980s, it remains far below the international standard. The country with a growing ailing population cannot provide sufficient healthcare facility to her citizens by expending less than 1% of GDP.

The country though made some progress in curative side of the health that has had a considerable impact on key health indicators, the health sector encountered with numerous structural issues that marred its broader effectiveness on common masses. Zaidi (1999) argues that Pakistan inherited her health system from British imperialism, which was brought to Indian subcontinent mainly to suit the medical requirement of their administrative and military set up.

He further demonstrates that:

> Along with own people, the British also permitted the native Indian elite to consume this modern care, and this trend continued even after independence, when only the affluent and ruling classes had access to adequate medical facilities. At the same time, the British allowed a select few from the elite to become administrators, bureaucrats and doctors, and to work along with the colonists. Thus when they left India and Pakistan, the British retained considerable influence on entire health service system of the country by the top of the medical profession in India remained heavily dependent on them (349-350).

Thus it may be safe to describe Pakistan's health system as a very inequitable elitist curative model that facilitates a select few, particularly in urban area.

Table 3.9: Expenditure on Health

Period	GDP (Current Factor) (Million Rupees)	Total Expenditure on health (Million Rupees)	Health Expenditure as % of GDP	Nominal Health Expenditure-Growth rate (%)	Per Capita Health Expenditure (Rupees)
1950-51	20,759	16.2	0.08	0.08	0.46
1955-56	22,688	31.3	0.14	0.14	0.79
1960-61	18,349	65.7	0.36	0.36	1.46
1965-66	28,969	110.5	0.38	0.38	2.13
1970-71	46,006	212.7	0.46	0.46	3.56
1975-76	119,736	989.7	0.83	0.83	14.14
1980-81	247,831	1,916.8	0.77	0.77	23.56
1985-86	466,319	4,275.3	0.92	0.92	44.69
1990-91	904,498	7,738.0	0.86	0.86	70.53
1995-96	1,929,891	16,354.8	0.85	0.85	131.37
2000-01	3,166,954	24,281.0	0.58	0.77	163.35
2005-06	7,295,210	40,000.0	0.51	0.55	257.40
2009-10	13,843,489	79000.0	0.54	0.57	

Source: Pakistan (Various Issues)

The country's health system is highly biased against the rural areas. For example, in spite of the fact that 60% of total population lives in rural areas, around 85% of practicing medical doctors work in urban centers and big cities (FBS, 2010). This "urban bias" may largely be due to the fact that since elite class resides in the urban centers, hence, the elite based medical system centers its medical facilities in cities. This geographical biasness is primarily because of the 'class biasness' that predominately exists in Pakistani larger society. As a result, rural areas with great majority of the poor and lower middle class of the country lacks similar kind of medical infrastructure that exists in big towns and cities.

In the course of this study we notice that the biggest and the richest Balochistan province is the home of the poorest and backward people not only in Pakistan but the world. To understand Balochistan's social and economic backwardness and hapless human condition one has to know the historical and contemporary politico-economic and geostrategic relationship of the province with the state of Pakistan. The following section is an attempt to analytically demonstrate how Balochistan was inducted into

Pakistan and what is wrong with the political economy of the province that has caused its phenomenal deprivation.

3.7 BALOCHISTAN VERSUS PAKISTAN

Balochistan, now a federating unit of Pakistan, had remained a sovereign and independent country for centuries (Harrison, 1981; Bansal, 2006). Balochistan with immense geo-strategic importance and huge untapped natural resource reserves (oil, gas, gold, copper and others), retains 44% of total territory of Pakistan (Gazdar, 2007). In 1948 when Balochistan was forced to annex with Pakistan (Ahmed, 1975), the conflict between the province and central government has been amongst the persistent state-province contradictions in recent history of counties (Akhtar, 2007). The Baloch – the inhabitants of Balochistan – revolted five times against the unwilling seizure of Balochistan by Pakistan. To suppress and quell the voice of the Baloch who pledged to regain the independent status of Balochistan, Pakistan has used sheer force. Consequently, the latter indulged into gross human rights violation by killing and exterminating the Baloch in a massive scale (Harrison, 1981).Why the Balochistan-Pakistan relation has been estranged and why the former has been failed to incorporate the latter into the federation? Furthermore, it is important to know that in spite of having huge resources and endowments Balochistan has remained the poorest and economically the least-developed region in Pakistan. In order to understand this conundrum, this section sheds a brief light on Balochistan-Pakistan relationship within a historical context and then analyses the causes of the underdevelopment of Balochistan by describing the political economy of the province.

The Baloch is one of the oldest nations of Iranian plateau. For historians it has not been easy to locate Baloch history due mainly to the unavailable documentary evidences. The only solution left to the researchers to trace out the origin of the Baloch people is to study the cultural and linguistic affiliation of the Baloch people with other ethnic groups within the region. The first credible and somewhat comprehensive work on Baloch history and language was carried out by Dames (1904) who traced the origin of the Baloch to Kerman.

In later part of the 20th century, after the work of many researchers on Iranian languages, the Balochi language has now established as a member of north-western group of Iranian languages (Jahani, 2003). Along with Persian, Balochi, Zazaki Kurdish, Talyshi, Mazandarani and Gilaki are main languages of this group (Axenov, 2006). On cultural ground, Bosworth (1977) and Janmahmad (1982) consider that Baloch have much similarity and resemblance with Parthian and Medes. Moreover, many cultural, linguistic and traditional evidences indicate that Baloch are closely related to the Median group of tribes among which Kurds are the most prominent member. However, Dasthi (2012) maintains that the Baloch have remained a distinctive ethnic group possessed their own territorial independence and the language since late antiquity while living in alliance with other nationalities and ethnic groups and sharing cultural and linguistic features with them.

Baloch has always lived in tribal communities with frequent movement from one part of their inhabited territory to another without having a proper chain of command. A significant change took place in Baloch history in the 14th century when Mir Chakar Khan Rind established the first tribal confederacy of the Baloch tribes to unite them under one loose administrative structure. His tribal confederacy stretched from Kirman to the west, Afghanistan to northeast, Sindh and Punjab up to the southeast and Arabian Sea to the south (Fred, 2002). Chakar Khan's step towards the Baloch unification was the first cogent initiative. However, after his demise the tribes failed to maintain their political unity until 1666 when the first Kalat confederacy was established. The Kalat confederacy was larger and more coherent than Ckakar Khan's confederation. In early 18th century the Kalat confederacy encompassed an area from Kandahar (Afghanistan) to the north and Bandar Abbas (Iran) to the west. To the east it extended to Dera Ghazi Khan and Karachi to the southeast (Ali, 2005). Under the 6th Khan of Kalat, Mir Naseer Khan, the Kalat confederacy emerged as a strong confederation with a regular army of some 25,000, a bureaucratic setup and two legislative councils (the house of lords and house of commons) (Harrison, 1981). During his rule significant improvements took place in terms of physical and economic infrastructure. He constructed roads, ports and encouraged education and learning. The territory under Kalat confederacy achieved the highest of development and attained the architectural, cultural and economic climax

(Fred, 2002). Thus with organised army and administrative structure Kalat remained a sovereign state until the arrival of British, who entered into Balochistan with high imperial designs. The Kalat confederacy lasted until the invasion of Balochistan by the British Army in 1839 when Mir Mehrab Khan, the ruler of the Balochistan was killed (Breseeg, 2004:159-166). On 13th November 1839 the British forces attacked the Palace of Balochistan's Ruler and Mehrab Khan and several of his friends were killed.

There are two distinctive views concerning relations between the British and Khanate Kalat. One is that the relations were based on amity, through agreements and treaties, but the other view is that there was a forced subjugation of the Kalat State by the British. The treaties with the State of Kalat and the revolts of Baloch tribes illustrate both these viewpoints. Zaidi (1993:288) argues in the Jinnah papers that "the history of British relations with the Kalat State and its rulers has been one of friendly alliances and treaties of mutual friendship and amity throughout". After the occupation of the state of Kalat by the British they finally signed a treaty and recognised Nasir Khan II as the ruler of Kalat in 1841. This treaty mentions that the "British troops could be stationed in Kalat territory" (Breseeg, 2005: 160). Various other treaties were signed at different times which provided an opportunity for the British to station their forces on British Balochistan territory en route to Afghanistan. In return for these concessions Kalat would receive handsome of subsidies and guarantees of tribal autonomy (Harrison, 1981). Of all the treaties and agreements signed, the treaty of 1876 was the most important one.

It had become expedient to sign treaty of 1876 in order to renew and reinforce the old treaty of 1854 and "to supplement the same by certain additional provisions calculated to draw closer the bond of friendship and amity between the two governments" (Zaidi, 1993:288). Article 3 of this treaty states that "the British Government to respect the Independence of Kalat" (Zaidi, 1993:288).[44]

[44] Many of the Baloch believe that Kalat State enjoyed an independent status under the treaty of 1876 and the British became responsible for protecting Kalat State's independent status. In 1947, before the division of United India, the Kalat State National Party had presented their case to the British for a fully independent Balochistan. The territory included the Kalat State, British Balochistan and all other Baloch areas which were leased by the British Empire to Iran and Afghanistan. According to Baloch nationalists

In early 20th century, Baloch middle class begun to mobilise a political struggle. They established the *Anjuman-e Ithad-e-Balochistan* (the Association for the Unity of Balochistan) which was a political party and a social organisation. Its principal aims, according to Bugti (1996) and Nasir (2010) and Baloch (1987) were; 1) ending the colonisation of Balochistan from the foreign powers; 2) unifying Balochistan; 3) the abolition of the Sardari system in Balochistan; and 4) establishing an independent united Balochistan. Later on in 1931 the Kalat State National Party was formed after the Persian occupation of Western Balochistan in 1928.[45] The *Anjuman-e-Ithad-e-Balochistan* and Kalat State National Party (KSNP) were secular and sought a unified democratic Balochistan (Redaelli, 1997). Both parties have provided a social and political platform for the Baloch youth to work for the Baloch people.

The decade of 1930 was a crucial period for Balochistan, when the British were planning to leave and divide India. As the prospect of independence from British approached, the Khan and the other Baloch leaders had to decide whether to seek sovereignty, accession to Pakistan or sought to maintain some confederal relationship with Pakistan (Harrison, 1981). The Khan along with Baloch leadership made it clear that they sought independence. The argument for this claim was that the status of Kalat was different from other native states within British Indian government. Unlike other states, Kalat along with Nepal maintained its treaty relations directly with British crown in Whitehall. Moreover, under the 1876 agreement through which the British were allowed to operate in Balochistan pledged that the former would not violate the sovereignty of the latter (Ahmed, 1975). Thus, on the eve of British withdrawal from the Indian Sub-Continent, the Khan declared the previous status of Kalat State on 12th August 1947, two days before the creation of Pakistan (Dashti, 2012). Nawabzada Muhammad Aslam Khan was appointed as the first prime minister of the independent

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and historians the British agreed to support an independent Balochistan and the case was submitted in the form of an official memorandum in March 1946.

[45] The Persian states weakened, and western Balochistan broke away once in the first decade of the 20th century. Bahram Khan (a Baloch ruler) extended his authority over most of the central and southern region of western Balochistan in 1915 (Bugti, 1996). Iran annexed western Balochistan to Persia once again in 1928 and this region is currently known as Seistan-Balochistan (Breseeg 2004: 195-96). It has since 1928 been part of Iran.

Balochistan. He along with foreign minister of Kalat was sent to Karachi to negotiate with Pakistani authorities on some outstanding matters including return of leased areas given to the British Indian government.

The Government of Kalat State Act 1947 was promulgated as the new constitution of Balochistan. Under the constitution Balochistan would establish a representative system of governance with aiming to connect the people of Balochistan with administration and other state machinery of Kalat (Talbot, 1999). The legislature was composed of two houses: the Upper House and the Lower House. Under the Act, shortly after the independence elections were held for both the houses. KNSP won the majority seats in the House of Commons.

Mohammed Ali Jinnah, after being appointed as the first governor general of Pakistan began to persuade the Khan to merge the newly independent country of Balochistan with Pakistan. The Khan took his proposal to the House of Common and the House of Lords for consideration. Both houses unanimously rejected the proposal and pledged to maintain the sovereignty and independence of Balochistan (Naseer, 1979). However, after failing to convince Balochistan and annex her peacefully, Pakistan used other tactics to cripple the Baloch state by manipulating the sub-ordinate states of Makuran, Kharan and Lasbela to join Pakistan bypassing the central authority of Balochistan. Consequently Pakistan has been successful in splitting the Baloch state. Eventually the Khan succumbed to the pressures and intimation of Pakistan, unwillingly affixed his signature on the Agreement of Accession on 27th March 1948. Discounted from the forced annexation of their homeland to Pakistan, the Baloch have revolted five times against the state of Pakistan to regain the lost independence of their homeland.[46] Thus, it is plausible to argue that the Baloch present association with Pakistan is not a voluntary union based on the principle of mutual interest and respect.

[46] The first Baloch insurgency took place in 1948, immediately after the occupation of Balochistan. It was followed by the second phase of conflict (1958-59), third phase of conflict (1962-68), and a guerrilla war in fourth time during the years of 1973-77. Since 2002 the fifth phase of Balochistan conflict, has been carried out through guerrilla warfare and strong political agitations in and out of Pakistan (Stanton, 2007; Barakzai, 2009).

3.7.1 POLITICAL ECONOMY OF BALOCHISTAN

Needless to say that the broader demand of the Baloch to regain the independence of Balochistan continued, but much of the reaction has emerged in response to the state of Pakistan's initiative to establish control over the territory of Balochistan with lots of resources. This conjecture of politico-economic interest of Pakistani establishment in Balochistan can be best understood through David Harvey (2003) theory, what he considers the capitalist imperialism by a state. He goes on to explain that a major shift took place in the middle of 20th century when states initiated accumulating territory in which spatio-temporal fixes can be undertaken. Balochistan contains a vast land with highly strategic coastline and good endowment of natural resources is a viable target for Pakistan with spatio-temporal fixes interest. Looking at the military expansion in Balochistan it is not difficult to comprehend that Balochistan is not being treated as a unit of the federation by Pakistani state. Instead, the former is committed to treat the latter as her neoliberal colonialism. This territorial imperative can best be corroborated by the construction of military cantonments to the width and breadth of Balochistan, particularly at Gwadar, a highly strategic coastal town, Dera Bughti, district with the largest gas deposits in the country, and Kohlu, where it is believed that precious deposits of oil and gas reserves are untapped. In addition to this, the military's commercialisation and blatant resource grapping is evident from military's direct involvement in coal business, gold and copper enterprises and real estate projects (Siddiqa, 2007). The territorial establishment of Pakistan army is not without support of multinational corporations. Multinational capital, most importantly the Chinese companies, has expanded substantively in Balochistan (later in current section we show that how multinational companies are involved in exploiting Balochistan's natural resources). The deprivation along with discontent of the people of Balochistan against the state of Pakistan is increasing, as apparently they perceive the military as a colonial force manifested in blatant self-aggrandisement.

The fact is Balochistan province is one of the poorest regions in the world and its inhabitants are among of the most deprived on earth. An average resident of Balochistan lives on less than a dollar a day, over 90% of the settlements in Balochistan have no

access to clean potable drinking water or medical facilities and rural illiteracy exceeds 90% (Balochistan, 2009). Within Pakistan Balochistan's per capita income is less than half of the country's average meaning that an average Baloch is likely to be twice as poor as his counterpart living in any of the other three provinces (Institute of Public Policy, 2011). It is unfortunate but true that even within the province of Balochistan; an average Baloch is twice as poor as an average Punjabi, Pashtun, or Hazara resident of the province. Even in the capital city of Balochistan, Quetta, less than one third of the households of the provincial metropolis are actually connected with the government water supply system and receive between 1-2 hours of water supply in 24 hours. The education system in the province is so inferior that those who can afford it would prefer to send their children to educational institutions outside the province; Karachi, Islamabad, Lahore. The same is true of medical facilities in the province; with a little affordability most people prefer to take their sick loved ones to Karachi or elsewhere for medical treatment.

In terms of political economy, Balochistan is markedly different from the rest of Pakistan. While the rest of Pakistan is labour-abundant with redundant labour force, Balochistan barely with 5% population with strong economic potentials can easily accommodate its indigenous labour force. While it is true that agriculture sector, like in the rest of Pakistan, continues to attract interest in Balochistan, its potential is circumscribed by the scarcity of water.[47] That is because, unlike other provinces of Pakistan, the greater part of Balochistan is not connected to the Indus River system to irrigate its vast and fertile land. Moreover, Balochistan receives abundance rainfall water each year. If this water was managed properly through dams and constructed channels, the province would have sufficient water to irrigate its dry but fertile land.

3.7.1.1 LACK OF INFRASTRUCTURE AND PHYSICAL AND HUMAN CAPITAL

A very basic ingredient of economic growth is the availability of physical and economic infrastructure. Such infrastructure in Balochistan is at worst non-existent and at best inadequate. As is the case with all extractive economies, roads and railways were built

[47] See the Balochistan Conservation Strategy and technical and background papers prepared for the Balochistan Resource Management Program.

for purposes of extraction and transportation of mineral and other resources (Bengali and Pasha, 2005). Grain and fruit farmers, animal raisers, and fishermen all remain poor partly because there is no farm to market roads and no local processing facilities are available within Balochistan (Kizilbash, 1998). The British originally built the road system for their own colonial strategic purposes, not for the purpose of the economic development of Balochistan. Recent road system along the coastal areas may serve strategic purposes but their contribution to economic development of the province is minimal (Akhtar, 2007).

No improvement in living standards and alleviation of poverty are possible without improvement in educational levels and standards. High rates of illiteracy and low standards of educational progress in Balochistan are due to many factors. These factors include: 1. poverty; a typical poor person cannot afford to send his children to school, because that will mean loss of income that the child could make by helping parents in their subsistence activities; 2. due to poor educational standards parents realise that the children do not benefit from education and lose interest in family activities of farming, animal raising and fishing; 3. most people in Balochistan believe that the only reason that children should be sent to a school is for them to be able to get a government job. But they also realise that government jobs are for people who have connections with higher ups in the government or are rich to be able to pay bribes. So, why bother send your children to school (Pakistan, various issues; FBS, various issues).

There is an established correlation between lower educational levels and higher rates of poverty. Studies performed in a number of Latin American, African and Asian countries have shown that a higher percentage of GDP spent on education, resulted in better educational levels and standards, which in turn resulted in higher economic growth rates and higher living standards (Winkler and Gershberg, 2000). The educational system in Balochistan is dysfunctional and a complete and absolute failure. Educational institutions are politicised, teacher appointments are made not on merit but on political grounds, and massive cheating takes place in all educational institutions and at all levels of education (Gazdar, 2005).

3.7.1.2 LACK OF ECONOMIC AUTONOMY AND CONTROL OVER RESOURCES

Besides agriculture and industry, the other potential of economic growth of Balochistan comes from mineral resources, transit routes and coastal development (ADB, 2005). The people of the province have no authority to run their own economic affairs and have no control over their natural resources. The Sui Gas case can be quoted as a classic illustration of economic exploitation of Balochistan. Natural gas was discovered on Sui site in the Dera Bughti District in Balochistan in the early 1950s and supplied to all provinces of Pakistan except Balochistan, where the same was supplied about 30 years later. The gas company that exploits and controls the gas fields is a federal government controlled company and Balochistan gets minimum share of the revenues generated. A similar case scenario can be witnessed with all other minerals and natural resources discovered in Balochistan (WB, 2007). Another example of resource exploitation of Balochistan in the hand of Pakistani authorities with the collaboration of multinational firms is the Sandak Copper and Rek – e – Dik gold-copper projects respectively in Chagi District. In 2002 the federal government entered into an agreement with a Chinese company to handover the Sandak Project. Under the agreement the Chinese company would fetch 80% of total profits back home, pay 18% to the federal government of Pakistan and disburse only 2% to Balochistan government as royalty charges (Grae, 2006). Rek – e –Dik gold-copper is the second major project in Balochistan that was given to Antofagasta of Chile and Barrick Gold of Canada. This project was aim to exploit the estimated 20 million ounces of gold and two billion tons of copper from Balochistan.

The economies of colonies have always been extractive in nature. The natural resources of the colony are extracted, taken in raw form to the mother country/region, where they are processed into finished products. This brings poverty and absolute deprivation for the colonised people as even unskilled jobs that arise during the processing of the raw materials are not available to them. No efforts have been made to establish such industries in Balochistan that will process locally produced raw material into finished products. There is no economic justification for transporting coal to other provinces of Pakistan to use it directly as a source of energy or convert it into other sources of energy

like electricity. This is particularly relevant because Balochistan faces acute shortages of energy and longest hours of blackouts. There is no economic justification for thousands of tons of raw marble stone, chromites, baryte, iron ore, shale, copper blister and other minerals to be taken in raw form to Karachi or to other places outside of the province for processing. Equally there is no economic justification for millions of tons of Balochistan fish to be taken to Karachi for processing and canning, because nowhere along the 750 kilometer Balochistan coast any fish processing facility exists. Also there is no economic justification to waste tons of Balochistan fruit and vegetables due to the absence of fruit processing industries in Balochistan (Zaidi, 2005).

Balochistan occupies an important geo-strategic position in southwest and northwest Asia. It is on the cultural, social, economic and geographical crossroad of the Middle East, Central Asia and the South Asia, and opposite to Straits of Hormuz. These potentials could make the province an industrial hub with a massive private industrial investment, had it been utilised by adopting vigorous industrial policy. According to a rough estimation, around 17 million barrels of crude oil passes through the Straits of Hormuz daily (Hassan, 2005). Sharing a 900 km border with Iran and 1200km with Afghanistan, the province "opens access to these mineral-rich and strategically important areas. It also marks an entry point into the resource-rich landlocked provinces of the Punjab and KP. Its geographical proximity to the oil and gas deposits of Central Asian regions adds to its strategic importance" (Gazdar, 2007: p. 8). The important strategic location places Balochistan on the cross road of a potential intra-and inter-regional trade. Nonetheless, the gross ignorance of Pakistan towards the industrial development, Balochistan remains one of the least developed regions in the world in terms of all the human development indicators despite the abundance of the natural resource.

3.7.1.3 INSTABILITY, CAPITAL FORMATION, AND INDUSTRIALIZATION

Investment and economic growth cannot take place in an environment of political instability. Due to the reasons mentioned above Balochistan remained unstable for the larger part of its history with Pakistan. Therefore, a favourable environment for capital investment in Balochistan has never been as lacking as in recent years. No

domestic or foreign investors will be prepared to invest even in the provincial capital not to speak of the interior regions of Balochistan when there is no security and stability. In fact, in recent years, many investment opportunities have been lost and even running businesses have closed down such as Sariab Textile Mills and Harnai woolen Mills have already faded away that provided employment opportunities to hundreds of people in Balochistan. Probably government policies and lack of security played a role in their shutting down. Hub industrial estate has not benefitted Balochistan much as far as providing employment opportunities to the people of Balochistan are concerned. Hub area industries are, for the most part, extension or subsidiaries of the Karachi based industries. The industrialists wanted to have tax relief by locating in Balochistan without providing employment opportunities to the people of Balochistan (Hussain, 2008).

3.7.1.4 LOW PRODUCTIVITY

In any society prosperity and improved standards of living are achieved through improved productivity. Productivity is the output per unit of input. Labour productivity is determined by first calculating the value of the goods and services produced in a year's time and then dividing it by either the total labour force or by the total number of hours of work spent in producing the goods and services. In United States during 2011, for instance, the total value of goods and services (GDP) produced was $15 trillion and per capita income was $ 47,000 (WDI, 2012). That year in USA, worker productivity, that is, the value of goods and services produced by an average worker in an hour's time was $59. The same year Pakistan's GDP per capita was $1050 (WDI, 2012). Average yearly income per person in Balochistan is about $350, and an average worker is, at the most, $1/59^{th}$ as productive as an American worker. This means that a worker in Balochistan (a shepherd, a fisherman, a farmer, daily wage labourer) produces goods and services equal to $1 or 95 rupees per hour (WB, 2009).

The question is why productivity is so low in Balochistan. Three principal determinants of a nation's labour productivity growth rate are: 1. the rate at which the economy builds up its stock of capital (machinery, equipment, buildings); 2. the rate

at which technology improves; and 3. the rate at which work force quality or human capital improves. Worker productivity in Balochistan is low because a worker in Balochistan is typically illiterate and uses minimal capital and primitive technology in the production process.

3.7.1.5 LACK OF DEMOCRACY, POLITICAL AUTONOMY AND ACCOUNTABILITY

Democracy and accountability are important prerequisites for economic growth and prosperity. Although lack of democratic institutions and accountability are problems that exist throughout Pakistan, Balochistan is particularly afflicted with this scourge. People of Balochistan have never had the opportunity to fully participate in the process of decision making about how to run their own affairs. The interference of federal agencies in Balochistan's elections and manipulate the electoral outcomes in the favour of Pakistan, rather than reflecting the wishes of the people of Balochistan. Moreover, the governor is also appointed by the federal government usually from outside of the province who is more loyal to the federal government rather than representing the Baloch people. The provincial governments installed in Balochistan were not necessarily those that are elected by the people of Balochistan, not those that are honest and sincere to work for the improvement of living conditions of the people of Balochistan, but those who are considered by the central government to be able to best serve the interests of the establishment in Balochistan. The popularly elected governments in 1973 and 1997 were removed on suspicion that they were not loyal enough and or not obedient enough to the central government (Ahmed, 2004). The centre wholly or partially controlled elections so that only those favoured by the 'establishment' could form a government in Balochistan. If those in power in Balochistan are brought and maintained in power by sources other than the people of Balochistan, they will be accountable to those who brought them to power, not to the people of Balochistan. This situation also contributes to corruption by the provincial rulers and also contributes to further deprivation and poverty for the ordinary people of Balochistan (Ahmed, 1990; 2004; Adeney, 2007; Ahmed, 2010).

3.8 CONCLUSION

Decisions on fiscal policy have always been under the influence of military and civil bureaucracy. The heavy reliance on bureaucracy for fiscal policy making may well be due to autocratic nature of Pakistani polity. The democratic forces were kept at distance from the key policy decisions. Thus, historically the fiscal policy making in Pakistan has been under the grip of military and their associated interest groups.

It is to be mentioned that since 1990s the country under the pressures of the IFIs has liberalised a big part of the economy and lessened the role of controlling elements in fiscal policy making. Certain pressure groups, businesses, politicians particularly with their weak financial and political positions are not effective enough to influence the fiscal policy making. However, recently they gained some power to influence the process. Nevertheless, it is worth pointing out that these pressure groups with increasing power do not reflect the general tendency of the country. Therefore, under present political and military structure it is unimaginable to expect any public-centered fiscal policy in Pakistan.

The country, notwithstanding having of a reasonable average economic growth rate, performed poorly in terms of human development, compare to other developing countries, and hence lagged far behind in all human development indicators. The above discussion reveals that the country has been failed to provide basic education to all citizens across the board. Although over the decades there has been a decent improvement in quantity of education, the quality of the education remained low. The adult literacy rate is one of the lowest in Pakistan compare to other regional countries, and even among literate, the majority of them is not properly skillful to be absorbed in the labour market.

The vast majority of the population is poor and marginalised and, have no, or very limited access to the healthcare system of Pakistan. The country spends less than 1% of her GDP on healthcare, which is far from enough to support a huge and rapidly growing population. Moreover, whatever health infrastructure the country has is concentrated in urban centres, despite the fact that more than 60% of the population lives in rural areas.

Additionally, the country has a vibrant and growing private health sector that although very expensive and not in the reach of most of the population is too situated in urban centres. Thus, it may be concluded that Pakistan needs to strategise a far reaching policy in order to make the education, healthcare and other such basic necessities available to the width and breadth of the country.

The Pakistan's political and economic relationship with one of her provinces, Balochistan, has been estranged because of certain historical facts as discussed with greater length in this chapter. And this rugged relationship of Pakistan and Balochistan indulged in the former into excessive use of state power against Balochistan that forced the latter into social and economic backwardness and human misery.

To sum up, this chapter dealt with three broad political economy issues of Pakistan: 1. the fiscal policy making; 2. the social sector development; and 3. Pakistan's political and economic relationship with Balochistan. In the following chapter, the evolution, and constraints on the development of fiscal decentralisation in Pakistan is discussed.

CHAPTER 4

THE POLITICAL ECONOMY OF FEDERALISM AND FISCAL DECENTRALISATION IN PAKISTAN

The federal system was created with the intention of combining the different advantages which result from the magnitude and the littleness of nations

Alexis de Tocqueville, Democracy in America

4.1 INTRODUCTION

This chapter discusses the development of federalism and fiscal decentralisation in Pakistan. Firstly we briefly illustrate how federalism has evolved in both pre 1973 scenario and thereafter when the 1973 constitution was adopted. Secondly we thoroughly elaborate fiscal decentralisation and its various elements, particularly the NFC Awards. The elaboration of this chapter helps us in understating the various developments of fiscal decentralisation in Pakistan. It is important to understand the fiscal decentralisation process and certain obstructions that frustrate the true decentralisation from happening in the country. Such understating supports us in knowing how and why decentralisation takes place in Pakistan. In addition, the discussion of this chapter also motivates the empirical analyses of fiscal decentralisation and poverty reduction that are presented in second part of thesis. The findings of this chapter may be placed with high relevance in decentralisation literature. Critical evaluation of fiscal decentralisation process in Pakistan is appropriate to the related literature of decentralisation. Pakistan with a federal setup contains a diverse socio-cultural, political and economic structure that makes decentralisation crucial for socio-

economic development of sub-national governments. Nevertheless notwithstanding the importance, fiscal decentralisation issue has not received an academic analysis. This chapter is an attempt to fill this literary gap.

Since independence Pakistan has been a federal state. Both wings required federal structure. Because the geographical division of east[48] and west wing, and the ethnic and cultural linguistic diversity of west wing demanded a federal solution. However, the great failure of Pakistan to adhere to the federal principles led to a civil war between the two wings during the early decades of her formation, which resulted in the breakup of the country and the creation of Bangladesh in 1971. This failure also left a colossal impact on remaining Pakistan with steadily increasing conflict and instability. All units except the Punjab are alienated and Balochistan is the worst affected among them (Ahmed, 1990).

Waseem (2010) divides the evolution of federalism in Pakistan in three phases: 1. pre-partition colonial heritage; 2. pre-federalisation (covers the period from 1947 to 71); and 3. federalism, which starts with 1973 constitution and continues until date with several amendments. The federal spirit in sub-continent polity and governance formally sparked in 1935 when the British India government promulgated the 1935 India Act in order to pacify and accommodate the heterogeneous communities and ethnicities across the region by providing them with regional and provincial autonomy. The Act though considered as the first 'quantum leap' toward federalism in the Indian Sub-Continent was not celebrated much among the Muslim majority parts of un-divided India.

The Muslim League, which was the representative political party of the Muslims in India, passed a Resolution in 1940 at Lahore, demanding a separate state comprising Muslim majority provinces and regions in India. The spirit of federalism was embedded in this Resolution. The acceptance of distinct ethnic and linguistic background of Sindhi, Bengali, Punjabi and Pakhtoon nationalities, that would embody Pakistan, was the classic example of the 1940 Resolution recommending a federal structure for the

[48] Historically the country was comprised of geographically two separate wings; the eastern and western wing respectively. However, in 1971 after a bloody war, the eastern wing separated from western wing (current Pakistan) and became Bangladesh.

country (Adeney, 2007). Therefore, to make a unity from the diversity of various ethnic groups and nationalities, provincial or regional autonomy was envisaged in the Pakistan Resolution. Nevertheless, instead of incorporating the principles of 1940 Pakistan Resolution in 1947 Independence Act and consequently adopting true federal principles, the ruling elite of Pakistan chose to assume a centralist path. Therefore, enormous power was given to the centre at the expense of provincial governments under the section of 9(5), 8(8), 102 and 92A of the Independence Act (Salamat, 1992).

The complex geographic and demographic characteristics of the country made it difficult to come up with a consensus-based constitution. The interests of monolingual east wing with one province comprised 54% of total population, against the western wing with diverse nationalities and ethnic groups of Punjabi, Pakhtoon, Sindhi, Baloch and Urdu speaking (*Mahajir)* with the population share of 28%, 6%, 8% 1% and 3% respectively demanded a constitution with loose federal structure with maximum internal autonomy to the provinces. But such arrangement was perhaps not acceptable to the *Punjab-Mahajir* elite who wanted to gain and possess disproportionate power share.

The first constitution formally adopted and promulgated in 1956, after 9 years of intense deliberations and proposals, lacked the multinational model of federalism. It did not suit Pakistan political, ethnic and geographical needs. The multi-national federation is one in which the minority groups make local majority and enjoy local autonomy within their respective jurisdiction. Pakistan cannot qualify for "multinational federation because, in contrast to India, the boundaries on the units of the federation were not revised to accommodate territorially concentrated linguistics communities" (Adeney, 2007: 106). The 1956 constitution provided a federal form of government with concentration of power to central government embedded "geographical model of federation", recognising only the east-west parity.[49]

This constitution happened to be short-lived. The second constitution was introduced on 1st March, 1962. The new constitution contained three legislative power lists: centre, provinces and concurrent – the latter would be exercised by federal and provincial

[49] However, the same parity formula was not applied to the West Pakistan, where provinces received representations and resources on population basis (Kundi and Jahangir, 2002).

governments (Kundi and Jahangir, 2002). The constitution adopted the presidential form of government with a strong role for the president who acted both as head of the state and the government, having no proper checks and balances which are the essence of presidential form of democracy exercised elsewhere (Ahmed, 2004). Another major feature of this constitution that markedly departed from the principles of federalism was the absence of specified definition of both provincial and the Concurrent List Articles. In practice, the governance system under this constitution was fully centralised with absolute power to military and civil bureaucracy with the strong collaboration of feudal aristocracy. The over-centralisation of the country eventually led to a great divide between the eastern wing (now Pakistan) and the western wing (now Bangladesh) in one hand and among provinces of the western wing on the other hand. Since the ruling elite of west wing, largely hailed from the province of Punjab, not only disregarded the people of East Pakistan in socio-economic and political realm but also ignored the other provinces of West Pakistan in power-sharing and economic development.

The 1962 constitution ceased to exist with the removal of its author (Ayub) from power after a mobilised agitation in 1969. In the subsequent years, till 1973, the country witnessed some major political developments in the shape of first democratic elections, the breakup of the eastern wing and the passage, promulgation of a unanimous (except members from Balochistan[50]) constitution of 1973 and a large scale military operation in Balochistan killing at least fifteen thousand ethnic Balochs (Harrison, 1981).

4.2 1973 CONSTITUTION: A MODEL OF MULTINATIONAL FEDERALISM

The 1973 constitution, adopted parliamentary form of government, rebalanced the power-sharing structure between the centre and provincial governments by pledging to grant maximum provincial autonomy. Four significant features of the 1973 constitution are pivotal in defining the powers and functions between federal government and its federating units/provinces.

[50] Out of five elected National Assembly members from Balochistan, three of them did not sign the constitution.

First, an upper house of the parliament, the Senate (Article 59) was created which provides equal geographical representation to the federating units.[51] With equal representation formula for provinces, each province elects 22 members, out of them 14 are generally elected, and 4 seats each are reserved for women and technocrats. The federal capital, Islamabad, elects 4 members and 8 members are elected from the FATA that brings the total number of Senate seats to 100 (Constitution, 1973).

Second, the Article (70 (4)) of the constitution discusses the Federal and Concurrent Legislative Lists. Under the Article, the parliament exclusively can enact and make legislation on 67 subjects of Federal Legislative List. On 47 subjects Concurrent List, both the parliament and the provincial assemblies can make legislation and enact laws. However, in case of any conflict on any legislative issue relating to the Concurrent List the decision of the federal government prevails over provincial government(s) (Constitution, 1973: Article 143). Matters not included in either legislature lists are the residuary power granted to the provinces, in which the latter are allowed to do legislation. Albeit the provinces have some residuary power of legislature but they are virtually powerless vis-à-vis on the subjects of Concurrent List. Conversely, article 143 ensures the supremacy and dominant power of the federal government over provincial governments. The role of the Senate is also constraint with the provisions of article 73. The article limits any role of the Senate relating to the Money Bill. Instead, the National Assembly (the lower house) has absolute authority in the Money Bill including the federal budget.

Third, in order to resolve disputes and enhance cooperation and harmony between centre and province(s) and among provinces the 1973 constitution under the Article 153 established the Council of Common Interest (CCI). Strong in the declaration but weak in action, this quasi-executive body of CCI comprises the prime minister, chief ministers of all provinces and other representatives nominated by the president or the prime minister.

[51] The second, and the most powerful, chamber of parliament, (lower house or National Assembly) is elected on the basis of population where Punjab province alone possesses the majority seats. Out of total 343 seats of national assembly, Punjab contains 183 (54 %) followed by Sindh with 75 (22 %) seats, KPK has 43 (13 %) seats and Balochistan possesses 17 or 5 % seats. The remaining 12 and 2 (4 % in total) goes to FATA and Capital territory, respectively (Constitution, 1973). The "National Assembly members are directly elected in an adult in a first-past-the-post electoral system" (Bengali and Pasha, 2005: 246). And Senate, as noted earlier, represents the geographical location or the provinces with equal representations.

The prime minister serves as the chairperson of CCI meeting but in case of his/her absence he can nominate any federal minister to chair the meeting. The CCI is responsible to formulate and regulate policies relating to the Federal Legislative List II (like railway, water and power and natural gas) and other inter-provincial disputes including disputes on provincial territories and electricity.

Fourth, the constitution under Article 160(1) created National Finance Commission (NFC)[52] with the mandate to deal with collection and distribution (vertically and horizontally) of federally collected tax and non-tax revenues, and borrowing funds. The NFC membership contains federal minister of finance as its chairman, provincial finance ministers and 4 to 5 experts appointed by the president/ prime minister after the consultation with the provincial governors/chief ministers.

The 1973 constitution although provides the federal system of governance with parliamentary democracy and significant autonomy to the provinces, has failed to break the power hold of the elites. Cohen (2006) remarks that in Pakistan, the establishment has a strong hold on key state institutions therefore exercises the actual power. Hence, the centre-province and inter-provincial relationship remained unfriendly and without coordination in the favour of centre and the biggest province (the Punjab). The critics such as Ali (1995); Adeney (2002; 2004; 2007); Ahmed (2010); Waseem (2010) believe that the reasons for the failure in maintaining a harmonious relationship between centre and provinces and among provinces itself is the centrist nature of the 1973 constitution in one hand and the preponderance of the Punjab over the other three provinces on the other. Another contentious matter rendered a great constitutional and political instability is the imbalance of the power between the president and the prime minister.[53]

However, soon after the first Constituent Assembly completed its tenure (1977) the military took over through a coup d'état. They scraped the constitution and imposed Martial Law. In subsequent years General Zia-ul-Haq, the military dictator and the

[52] A detailed and in-depth analysis is given later in the chapter.

[53] Pakistan with a parliamentary system of federalism constitutionally supposed to confer more power to the prime minister who exercises his/her functions as head of the government. The president on the other hand without commanding any executive power serves only as the head of the state.

president, brought about numerous amendments and validated them by non-party based elected parliament in 1985 including the power of the president to nominate any member of the parliament as prime minister and dissolve parliament at any time.

In order to undo and redress various amendments enacted and incorporated into the constitution during military dictatorships (1977-1988 and 1999-2008) and bring the constitution back to its original shape and grant more administrative and fiscal autonomy to provinces, the18th amendment was made to the constitution by the incumbent civilian government.

4.3 18TH AMENDMENT: A MOVE TOWARDS FISCAL FEDERALISM

The 18th amendment to the constitution passed in April 2010 is considered as a significant reform package towards the establishment of federalism and decentralisation in the country. The 18th amendment brought after exhaustive consultations and deliberations. It was largely aimed to bring 'participatory federalism' in Pakistan. The amendment with 100 small and major changes to the constitution is thought to be a way forward towards federalism and decentralisation of the country providing the provincial government with greater provincial autonomy. Some of the salient features concerning specifically to the fiscal federalism and provincial autonomy are enumerated as follows:

1- The Concurrent List is eliminated and powers including the residuary ones are transferred to the provinces in principle. Laws concerning policing, law and order, education, healthcare among others are to be devolved completely to the provinces and the latter are responsible to make laws and execute them accordingly.

2- The NFC, the sole mechanism for both vertical and horizontal resource distribution, cannot reduce the provincial shares beyond the distributed share agreed in the seventh NFC Award under the Article 160. This may be taken as a major constitutional development towards fiscal decentralisation where, theoretically at least, the provinces are provided with more expenditure responsibilities with more funds made available through greater share in divisible pool (SPDC, 2012).

3- The CCI's, a joint federal-provincial forum, role relating to the subjects of common legislature interest between the centre and province(s) and among the provinces has been revitalised and its functional responsibilities have been enlarged as indicated above.

The 18th amendment although constituted a dramatic shift in political economy of fiscal federalism, ironically it has not been successful in rectifying some of the core dynamics that caused greater provincial inequality as well as controlling the strong role of military in country's polity. It is worthwhile to mention that the military is the strongest force championing for greater centralisation in Pakistan. Therefore, without diluting the military role in the political economy of the country the spirit of true federalism is hard to exercise. Another significant area where the 18th amendment is failed, is to address the absence of constitutional guarantee to the local governments - the functions of latter as responsible and accountable bodies is believed to be vital for federalism (Oates, 1973; Birds, 1993; Litvack et al., 1998). Furthermore, the local governments suffer because of the overlapping of the power and functions between the provincial and local governments. The provincial governments because of their upper hierarchy often interfere in local governments' domains and use them to fulfill their political and economic needs, particularly for the purpose of electoral politics. In this regard, a constitutional mandate to the local governments not only makes the latter a substantive body but it helps also in ensuring the wider political and democratic participation by enhancing the grassroots potential.

4.4 1973 CONSTITUTION AN ITS BICAMERAL STRUCTURE

Bicameralism was adopted in the 1973's constitution in order to foster simultaneously "regional and majoritorian federalism" in Pakistan. According to Lijphart (1979) federalism is more desirable to take into account the differing interests under one governing structure than British style majoritorian rule with no geographical representation in the parliament. As discussed earlier, the Senate of Pakistan, though was created to balance the federalism, has been inactive in major policymaking including the fiscal policy in practice.

In the light of literature on bicameralism, we attempt to address the following question. How affective and useful is the bicameral structure in terms of major policy decisions in Pakistan when the upper house (the Senate) role is overshadowed by the lower house (the National Assembly), where one province (the Punjab) possesses the absolute majority?

The federal structure of Pakistan may qualify for 'uncoordinated' and 'un-accommodative' forms of federalism. The uncoordinated is defined as the system of governance where federalism coexists with authoritarian structure, while under accommodative federalism all federating units/provinces are better-off after joining or forming the federalism (Adeney, 2007). In parliamentary form of democratic federalism, the majoritorian rule prevails. Pakistan with parliamentary from of democracy is not an exception when it is governed by elected civilian regime.

Does majoritorian democracy guarantee the rights of smaller/minority provinces? Perkins (1992) believes that it may not do so because the smaller provinces lack the power to influence the decision-making processes within the federation. In Pakistan where nationalities are defined in terms of their ethnic background and provinces are largely demarcated on ethnic lines[54] majoritorian rule seems problematic. The argument is in a federal structure where the preponderance population of one province, the Punjab in case of Pakistan, dominates the combined population of rest of the country, democracy under the majoritorian rule permanently keeps the smaller nationalities out of the realm of power. This view point is substantiated from the unfolded events in Pakistan demonstrating that, democracy has not been a panacea for the smaller communities. Instead it increases the probability of conflict between the communities within the federation. Looking at the political history of Pakistan one may conclude that the inclusion of smaller provinces in policy makings has been barred during both authoritarian and democratic rules. Therefore it suggests that democracy may not always make the federalism accommodative for minority groups.

[54] Unlike India where new provinces (states) have been carved out based on linguistic and ethnic affiliations of the communities, provinces in Pakistan are not legally recognized as ethnic units. However, since each province is predominately populated by a distinct ethnic group, Punjab by the Punjabis and Balochistan by the Balochs, for instance. They (provinces) are understood as de facto ethnic units in Pakistan.

A simple illustration may help understanding how the rules of business work in the Legislative Assembly. Any legislative move in the National Assembly that is in the favour of other three provinces except the Punjab can be simply turned down. That is because the Punjab has the "veto power" in the National Assembly by the virtue of its single majority in the house. It approves any policy that serves the Punjab interests as they have the domination over majority votes, even though it may come to the direct disinterest of other federating units.

The Senate role is limited to mere a debating forum without commanding any substantive power in policymaking. For instance, under the Article 73 Money Bills including federal annual budget are not presented and discussed in the Senate. The latter can only comment on the budget once it is originated from the National Assembly. The National Assembly finally passes the federal budget or any other finance related bill with or without considering the proposals of the Senate. Therefore, any policy including fiscal policy of federal government that the federal budget reflects inherently cannot be framed and passed unless it safeguards the Punjab's fiscal and political interests.

Even if the 1973 constitution provided with the provision that the federal budget or any other fiscal policy matter would need to be approved in the joint secession of the parliament, the Punjab's absolute majority in the National Assembly would override the other three provinces majority in the Senate. Punjab with 183 National Assembly Seats and 14 members in the Senate commands 297 of total 443 votes of the Parliament. Yet in joint secession, Punjab can approve and disapprove any matter that confirms its interests. Thus, overrepresentation of one province with majoritorian democracy has made Pakistan an 'uncoordinated federalism' and jeopardised the "balanced functioning" of the federation in order to safeguard the rights of the smaller provinces.

4.5 FISCAL DECENTRALISATION IN PAKISTAN

Fiscal decentralisation in Pakistan is uneven where the provincial governments have high expenditure obligations with very limited and narrowed tax collecting authority: the federal government collects 90% revenues and undertakes 70% of total public expenditures (Pakistan, various issues). Given the mismatch between provincial

governments' expenditures and revenues the intergovernmental transfer has become an issue between the centre and federating units.

Table 4.1 presents the revenue raising responsibilities of federal and provincial governments that are delineated in the constitution under the Article 70 (40). Taxes and duties such as sales tax, capital gains tax and income tax are shared between federal and provincial governments, though the former alone sets the bases and rates of these taxes (Ara and Sabir, 2011). General Sales Tax (GST) on sales and purchases on goods falls under the domain of federal government, whereas, the provincial governments levy and collect GST on services. However, notwithstanding all of this, constitutional provision gives authority to the federal government, under the pretext of Central Excise Duty, to collect GST on services on telecommunication, which accounts for a major share of service taxes. Nevertheless, this intermingling is rectified in the 18th amendment in which all kinds of relevant sales tax are transferred to the provinces.

Article 161 and fourth schedule of the constitution elucidate respectively the allocation of royalties/surcharges and taxes/duties/fees to various levels of government, which are indicated in table 4.2. It specifies that the federal government collects excise duty for natural gas on a wellhead basis and hydroelectric power generation and transfers the same to the appropriate province(s) in which the gas well is situated and electricity generation plant is stationed. Similarly, the constitution also spells out the borrowing power of the federal and provincial governments.

One of the main building blocks of fiscal decentralisation is intergovernmental resource transfer. As is noted earlier, Pakistan with a serious mismatch between spending and resource mobilisation among different tiers of government needs a vibrant intergovernmental resource transfer mechanism. The resource flow takes place at 4 levels, as illustrated in figure 4.1.

Table4.1: Constitutional Provisions of Fed. and Prov. Govt. Revenue Assignments

Federal Government		**Provincial Governments**	
Direct Taxes/Duties	**Indirect Taxes/Duties**	**Direct Taxes/Duties**	**Indirect Taxes/Duties**
Personal Income Tax (excluding Agri. Income Tax)	Custom Duties	Property tax	Excise duties (levied on alcohol and narcotics)
Corporate Income Tax	Excise Duty (excluding on Alcohol and narcotics)	Capital Gains tax	Sales Tax on Services
Capital Value tax (Excluding immovable property)	sales tax on goods	Agriculture Income Tax	Stamp Duties
	Production capacity tax		Duty on electricity
	Taxes on goods and passengers (levied on terminal)		Hydro profit tax
			Duty on Natural duty
			Registration fee
			Mutation
			Motor Vehicle tax
			Professions Tax

Source: Constitution of Pakistan (1973)

Firstly, resources flow from the federal to provincial governments through the mechanism of NFC Award. While, the second stream of flow occurs from the provincial governments to the local governments through Provincial Finance Commission (PFC) Award, and at third stage of resource flow, the federal government directly transfers funds to the local governments. In the last stage local governments (districts/municipalities) transfer funds to lower level (*tehsil* and union councils). The systematic resource transfers to the provinces from the federal government include revenue shares, development grants, grants-in-aid and loans. In addition to this, the federal government also collects and transfers 'straight transfers' like royalties on gas and petroleum surcharges to the provinces. Major tax revenues of the federal government that also make up the divisible pool are income taxes, sales tax, and excise and custom duties. Though the role of the provincial governments in revenue generation is considerably limited, they are however responsible for the collection and retention of

motor vehicle tax, stamp duties, income tax on services, and agriculture tax among other small taxes and duties (Bengali, 2002).

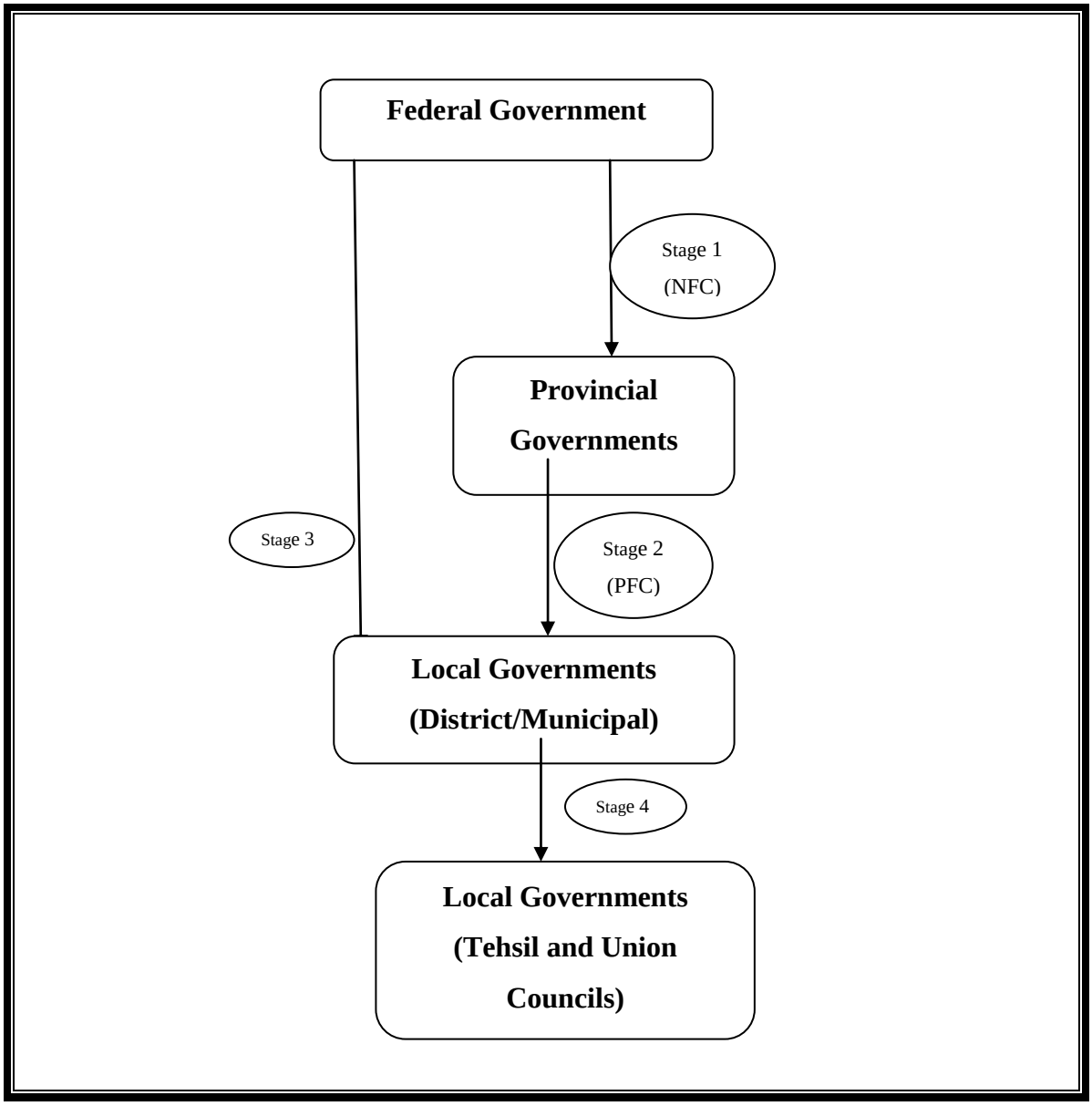
As table 4.2 illustrates the provincial governments are not only constraint in having exclusive domain on few taxes and duties (property tax, stamp duties among others), but are largely pre-empted by national government in sharing them.

Taxes that exclusively fall under the federal government's domain are custom duties, sales tax on goods, and income tax on goods, corporate tax and natural resource taxation. The provincial governments, on the other hand, have exclusive authority to collect property tax, stamp duties and income tax on services. Many of the tax bases are shared and overlapped between the federal and provincial governments. Because of the ambiguous nature of overlapping, the problem of excessive taxation on certain tax bases and increasing compliance costs invariably occur. Another ambiguity exists with the capital gain tax. For example, whilst for capita tax, the provincial base includes tax on capital gain on physical assets; the federal government collects capital gain taxation on financial assets.

Regarding sales tax, both federal and provincial governments have their own domain. The federal government has the authority to levy and collect sales tax on goods, while, the sales tax on services falls under the purview of the provincial governments. Since the sales tax on goods can be exported to neighbouring province(s) - lest a provincial government levies it – therefore the federal government collects it to discourage such exporting.[55] Nevertheless, Bahl (1999) and Ahmed and Wasti (2002) argue that this division and bifurcation of sales tax has the potential to impede the introduction of neutral value-added tax with tax invoice features in the different sectors of the economy

[55] For example, the province of Sindh homes the majority of industries, because of the port city of Karachi, and contributes 40 % of value added in industrial commodities. The province with the population of only 23 % to total population is very likely to export a big volume of tax to other provinces.

Figure 4.1: Resource Transfer Mechanism under Various tiers of Government



Source: the author

The federal and provincial governments' tax revenues are presented in table 4.2, wherein it is shown that indirect taxes contribute to the majority of federal tax revenues. Although the share of indirect tax to total federal tax revenues has decreased from 83% in 1980 to 64% in 2010, yet it still dominates the federal government tax composition.

Table 4.2: Assignment of Taxes Federal and Provincial Governments

Taxes/Duties	**Government(s)**
Customs duties	Federal
Income tax on goods	Federal
Income tax on services	Provincial
Corporate tax	Federal
Natural resource	Federal
Excise duties	Federal/provincial
Property tax	Provincial
Stamp duties	Provincial
Motor vehicle duties	Provincial
Fees	Federal/Provincial
Other taxes/duties	Federal/Provincial

Source: Constitution (1973)

Table 4.3: Composition of Tax Revenues of National and Provincial Governments

(*Values in percentage)*

	1980-01	**1985-06**	**1990-01**	**1995-06**	**1999-00**	**2005-06**	**2010-11**
National Government							
Direct Taxes	**17.4**	**17.0**	**16.6**	**28.7**	**31.2**	**31.0**	**36.4**
I. Income Tax	17.0	16.7	16.9	27.8	29.1	29.7	35.0
II. Wealth Tax	0.2	0.2	0.5	0.5	1.2	0.0	0.0
III. Others	0.5	0.1	0.2	0.4	0.9	1.2	1.3
Indirect taxes/duties	**82.6**	**83.0**	**83.4**	**71.3**	**68.8**	**69.0**	**63.6**
I. Custom Duties	41.0	47.1	44.8	33.1	18.2	19.3	11.1
II. Sales Tax	8.4	8.7	16.6	19.0	34.2	40.5	36.4
III. Federal Excise Duty	31.5	27.0	22.0	19.1	16.1	9.2	9.0
IV. Others	1.4	0.2	0.0	0.1	0.3	0.1	7.2
Total	**100.0**	**100.0**	**101.0**	**100.0**	**100.0**	**100.0**	**100.0**
Provincial Governments							
Stamp Duties	26.7	27.9	37.3	37.2	31.0	35.0	36.1
Motor Vehicle Tax	19.5	21.5	17.2	16.2	13.7	11.7	10.6
Property transfer and reg. Tax	5.0	5.3	3.8	3.2	2.2	2.0	3.1
Land Revenue	6.8	7.0	8.8	11.5	11.3	11.5	10.4
Electricity Tax	10.1	7.9	15.7	10.3	7.8	8.5	8.5
Callings Tax	2.2	2.0	1.5	2.2	2.1	2.7	1.6
Provincial Excise Duties	3.4	3.6	4.3	7.3	5.7	5.1	6.2
Agriculture Income Tax	0.0	0.0	0.0	0.0	12.3	12.5	13.5
Immovable Property Tax	3.5	3.0	2.6	2.6	2.4	2.2	1.2
Entertainment Tax	9.2	8.8	3.4	1.8	1.8	1.0	3.1

Capital gain Tax	6.5	6.7	0.0	0.0	0.0	0.0	0.0
Others	7.1	6.3	5.4	7.7	9.7	7.8	5.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: State Bank of Pakistan, Federal and Provincial governments annual budget documents

Within the category of indirect taxes, custom duties had dominated until 1995 followed by federal excise duties and sales tax. However, a major shift took place thereafter in which sales tax's contribution to this head has increased tremendously. Under the direct taxes at the federal level, income tax generates most of the revenues. As table 4.3 indicates provincial tax revenues stamp duties and motor vehicle tax respectively are the major contributors to provincial governments' revenues. Agricultural income tax adopted after the financial year of 1999-2000 has overtaken the motor vehicle tax and has consequently become the second largest contributor to the provincial tax revenues. Among other taxes and duties the share of provincial duties on land has also increased over the time. Nonetheless, remaining sources of provincial tax revenues are still very small, narrowed and inconsistent.

Expenditure functions of federal and provincial governments are more balanced than the revenue authorities. But also, as presented in table 4.4, the allocation of expenditure responsibilities in Pakistan does not adhere to the general trends followed by other federal countries. For example, education, health, agriculture are largely the functional responsibilities of the subnational governments in the majority of federal states (Adeney, 2007. However, in Pakistan these functions are jointly undertaken by federal and provincial governments, where the functional role of each tier is significantly blurred.

Nevertheless, in certain sectors like defense, foreign affairs, air services, railway, and currency and banking the federal government exercises exclusive functions. The function of the federal government on these services is strictly in accordance with the standard principles of federations around the world. With few exceptions the provincial governments would not exercise exclusive authority in any functional responsibility.

Table 4.4: Assignment of Functions/Exp. to Federal and Provincial Governments

Functions	**Government(s)**
Defense expenditure	Federal
Currency	Federal
Banking	Federal
Foreign Affair	Federal
International Trade	Federal
Industrial Development	Federal
Transportation and Communication	Federal
Environment	Federal/Provincial
Manpower management	Federal
Interprovincial trade	Federal
Immigration	Federal
Air service and Railway	Federal
Food and Agriculture	Federal/Provincial
Population Planning	Federal/Provincial
Health	Federal/Provincial
Education	Federal/Provincial
Social Services	Federal/Provincial
Highways constructions and maintenance	Federal/Provincial
Tourism	Federal/Provincial
Power generation	Federal
Rural Development	Provincial
Policing	Provincial

Source: Constitution (1973)

Albeit, the exclusive role of each tier of government is largely limited in federal form of government, yet in Pakistan certain functions that should be purely under provincial domain are either shared by both level of governments or come in the purview of federal government – agriculture, education, health and social functions are the classic examples. Thus, notwithstanding the extent and nature of decentralisation underlined in 1973 constitution, the real assumption and execution of power is still fundamentally centralised.

The expenditure composition of federal and provincial governments is given in the table 4.5, which clearly indicates that the share of the federal government is much higher than

the provincial governments. The federal government spends 74% to 70% of total national public expenditures, and dominates in sectors like defense and debt servicing, with 100% share in the former and 82 to 93% in the latter. In some sectors, particularly in general administration and other social services, the share of federal government has been declining over the years. However, in certain sectors which are believed to be sub-national in character the share of federal government has had an upward trend. For instance, the share of federal government in health sector increased from 13% during 1980s to 24.13% by the turn of the century; although afterward it has started declining.

4.6 VERTICAL IMBALANCE: REVENUE MOBILISATION AND EXPENDITURES

Vertical imbalance in tax and non-tax resource mobilisation is starkly higher in comparison to expenditure. These imbalances are such that the federal government has a budget surplus of 17% to 23%, whereas the budget deficit of provincial governments is with the same magnitude. Table 5.6 illustrates that the provincial governments' – this includes the local governments – resource mobilisation ranges from about 5% to about 9% of total national revenue. As shown in figure 4.2, 90% to 91% of total provincial receipts come from federal governments. Therefore, it implies that revenue decentralisation in Pakistan is not only far lower than other federations, it also shown a very slight movement over the course of 25 years. It further suggests that high centralisation of revenue collection with relative decentralisation of expenditure responsibilities encourage the provincial governments to indulge in unnecessary expenditures, knowing that the federal government finances their budget gaps through intergovernmental resource transfers, which eventually makes the provincial governments less accountable to the taxpayers.

Table 4.5: Expenditure components of Federal and Provincial Governments

(Share in percentage)

	1980-81	1985-86	1990-91	1995-96	1999-00	2005-06	2010-11
Federal government							
Defense	100	100	100	100	100	100	100
General government	61.11	64.41	57.78	48.4	48.12	46.71	45.3
Debt Servicing	86.12	88.5	87.16	89.09	91.7	92.01	93.41
Law and Order	34.1	36.41	33.15	34.48	32.26	31.22	30.12
Other Social Services	74.42	79.3	80.64	65.54	55.95	52.17	50.2
Economic Services	41.73	38.08	44.75	32.36	24.37	23.55	20.37
Community Services	36.23	34.76	22.97	36.41	33.21	32.11	28.1
Health	13.13	15.14	12.89	26.08	22.96	19.1	17.52
Education	11.51	12.66	11.92	12.96	10.71	11.34	9.11
Others	81.7	82.49	81.21	85.24	66.48	63.11	59.11
Total exp. of Fed. Govt.	**73.24**	**74.02**	**73.13**	**71.79**	**74.15**	**73.1**	**71.52**
Provincial Governments							
General government	38.89	35.59	42.22	51.6	51.88	53.29	54.7
Law and Order	65.9	63.59	66.85	65.52	67.74	68.78	69.88
Community Services	63.77	65.24	77.03	63.59	66.79	67.89	71.9
Health	86.87	84.86	87.11	73.92	77.04	80.9	82.48
Education	88.49	87.34	88.08	87.04	89.29	88.66	90.89
Other Social Services	25.58	20.7	19.36	34.46	44.05	47.83	49.8
Economic Services	58.27	61.92	55.25	67.64	75.63	76.45	79.63
Debt Servicing	13.88	11.5	12.84	10.91	8.3	7.99	6.59
Others	18.3	17.51	18.79	14.76	33.52	36.89	40.89
Total exp. of Provinces	**26.76**	**25.98**	**26.87**	**28.21**	**25.85**	**26.9**	**28.48**

Source: Ahmed and Wasti (2002), Annual Budget Documents of Federal and Provincial governments.

4.7 INTERGOVERNMENTAL RESOURCE TRANSFERS

Lower tiers of government receive several types of transfers from the higher level of government(s) that include unconditional and conditional transfers. Unconditional

transfers are revenue sharing from the divisible pool taxes and straight transfers such as royalty on oil and electricity and development surcharges on gas.

The conditional transfers, on the other hand, constitute a relatively low magnitude and largely include development grants, closed-ended matching grants as incentives to provinces for provincial resource mobilisation, federal transfer to the universities, among others.

Table 4.6: Current expenditure and Revenue Mobilization

(Share in Percentage)

Year	Expenditure Share		Revenue Mobilization Share		Deficit/Surplus	
	Federal Govt.	**Provincial Govt.**	**Federal Govt.**	**Provincial Govt.**	**Federal Govt.**	**Provincial Govt.**
1980-81	75.3	24.7	93.4	6.6	18.1	-18.1
1985-86	74.1	25.9	92	8	17.9	-17.9
1990-91	73	27	93	7	20	-20
1995-96	72	28	95	5	23	-23
2000-01	74.2	25.8	92.9	7.1	18.7	-18.7
2005-06	76.3	23.7	92.7	7.8	16.4	-15.9
2010-11	73.9	26.1	91.2	8.8	17.3	-17.3

Source: Economic Survey of Pakistan (various years) and federal and provincial governments Documents (various year)

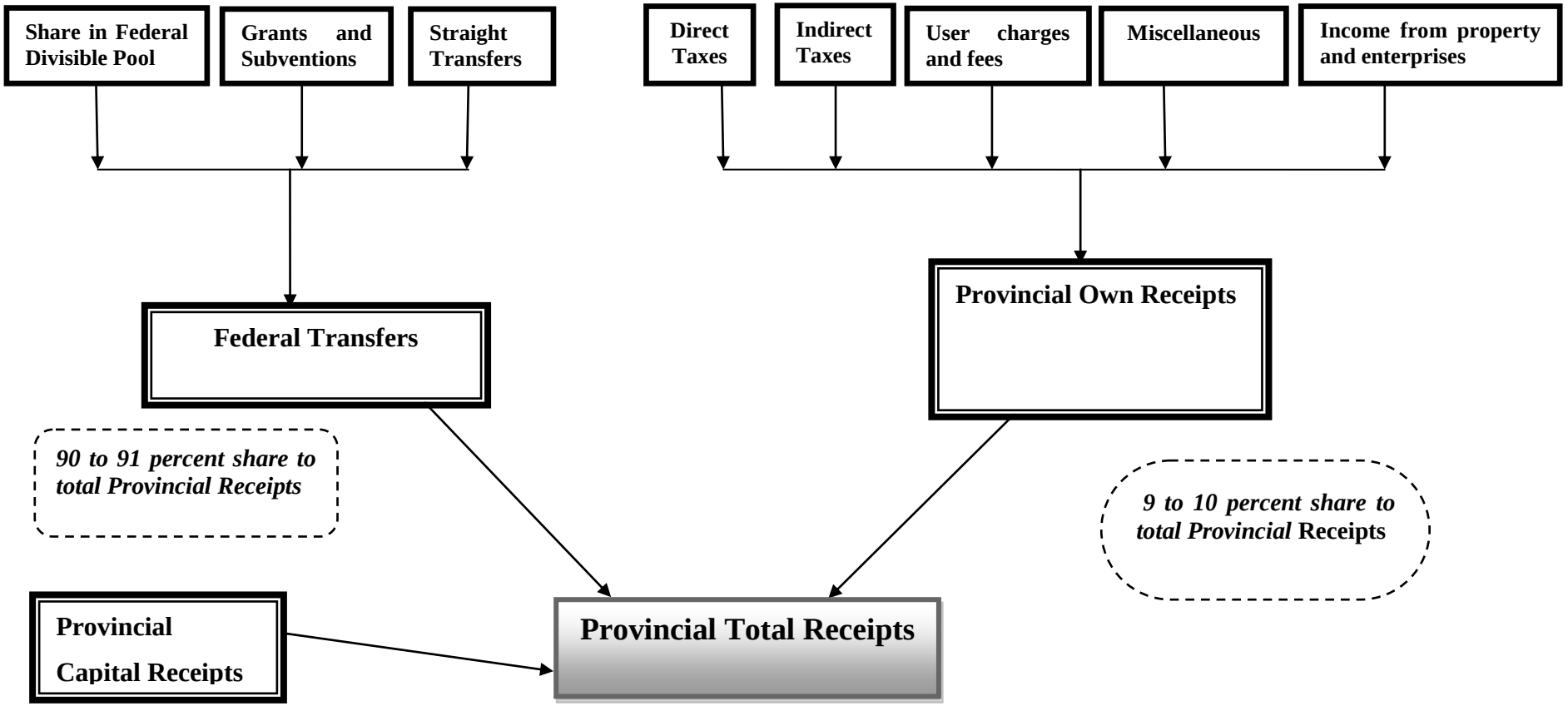
The four types of resources: 1. revenue-sharing transfers; 2. recurring grants and loans; 3. development grants; 4. debt servicing and surcharges, transferred from the federal government to the provincial governments are discussed below very briefly.

In *revenue-sharing transfers* taxes collected by the federal government are shared with provincial governments under the coverage of divisible pool revenue sharing mechanism that includes number of taxes and duties.

This arrangement also decides the share of revenue from each tax that may be transferred to sub-national governments

.

Figure 4.2: Provincial Governments' Total Receipts



Source: the author (based on Pakistan (various years) data)

In addition to this, the divisible pool determines specified revenues given to the provincial governments, which include royalty on the exploration of oil and gas and surcharges on electricity.

Under the *recurring grants and loans* the federal government transfers funds to provincial governments in order to subsidise a particular social or economic service through grants-in-aids or other kind of grants. Additionally, in case of a massive budget deficit problem with provincial governments the federal government may take the responsibility of financing it through grants, since the provincial governments are constraint from borrowing to cover it. In the case of the federal government reluctance, the provincial governments are encouraged to take soft loans from the federation. Similarly, the provinces are also given loans to cushion their budget for financing the development expenditures.

Under *development grants* the federal government transfers block or specific grants to provincial governments to finance the overall development expenditure of the latter or finance specific social services such as education and healthcare. Development grants from the federal government usually finances provincial governments through its Annual Development Programme (ADP).

Debt servicing of provincial governments to federal government is the manifestation of reverse flow of funds from lower to higher level of governments, where the former pay back the debts to the federal government. The debt servicing consists of interests and the principal amounts of loans that have been taken by the provincial governments on various occasions for budgetary purpose. In addition to this, provinces pay revenues that occur to the federal government, specifically the surcharges levied on taxes of the sub-national governments.

Intergovernmental fiscal transfers may be justified on following grounds:

Firstly, given the better infrastructure of tax machinery and resources available for collecting larger tax revenues, the centre is more efficient than provinces. Given the proximity to taxpaying agents, individuals and corporations, and nature of smaller taxes, such as stamp duties and motor vehicle tax, the provinces are economically efficient to

collect taxes with narrow bases. Therefore, revenue obligations to various tiers of government may be placed based on the criteria of economic efficiency as well as social desirability, though the latter with lesser magnitude.

Secondly, in Pakistan the expenditure and revenue generation obligations, respectively, are unequally distributed where subnational governments undertake more expenditures than revenues. Therefore, intergovernmental fiscal transfer is essential to bridge this mismatch of revenues and expenditures of provincial governments.

Finally, in the majority of countries with federal system of governance, the income tax and sales tax are sub-national government's subjects in character, that is, they are mainly levied and collected by the provincial/state governments. However, in Pakistan both income tax and sales taxes are levied and collected by federal government - though the income tax in services has recently been assigned to the provincial governments after the 18th amendment to the constitution and 7th NFC Award. These two forms of taxes constitute a sizable proportion (more than 50%)[56] of total tax revenue. Therefore, sharing them between federal and provincial governments through the NFC Award framework makes intergovernmental transfers crucial for the public finance of the provincial governments.

In following section the NFC Award and its development is discussed in detail.

4.8 NATIONAL FINANCE COMMISSION AWARDS: A HISTORICAL PERSPECTIVE

The NFC gives the legislative provisions of resource distribution between the central and provincial governments and among the provincial governments. It is established under the Article 160 (1) of the constitution of 1973 and ensures the distribution of resources mobilised by the federal government and shares with the provincial governments. The provincial governments, with a limited resource mobilisation authority, as presented in diagram 4, rely on federal transfers to finance most of their budgetary requirements. Therefore, prudent, efficient and judicious NFC Award is necessary for the smooth running of provincial finances.

[56] Pakistan (2011-12)

The salient features and characteristics of the NFC Award are described below (Pakistan, 2006):

1. Mobilisation of taxes, duties, fees and other specified tax revenues by the federal government and their distribution vertically and horizontally.
2. The allocation of various kinds of grants to the provinces from the federal government.
3. The discretion of borrowing powers to the federal government as well as to the provincial governments.
4. Any kind of contentious financial issue relating to the resource distribution is referred to the NFC body.

Financial resource distribution in Pakistan traces its history back to the 1935 Government of India Act, where the fiscal relation between federal (centre) and provincial governments is delineated and prescribed. The 1935 Act governs the distribution of revenues alongside the legislative responsibilities of central government and its constituent units (Jaffery and Sadaqat, 2006).

Table 4.7 portraits the share of provincial governments in various resource sharing awards. Though, there have been 12 awards in total since the independence of Pakistan, only 7 could successfully conclude their final recommendations amicably. The resource transfers' trend has been increasing since the first award – Raisman award -, from 12.8% in 1951 to 56-57.5% in recent award (concluded in 2009). With the exception of 1974 award, and the following two inconclusive awards (1979 and 1985) which replicated 1974 award, the share of provincial government in divisible pool has consistently been increasing. This shows that the country has gradually, albeit very slowly, moved towards fiscal decentralisation.

In undivided India, when Pakistan was a part of it, the *Niemeyer Award* under the 1935 Government of India Act formulated the resource distribution framework between the central government and its federating units. It is interesting to note that under this award the provincial governments levied and collected the sales tax, while in case of income tax the 50% to total collection. After the independence of the country in 1947, the same

financial distribution arrangement was continued, though with some readjustment with the sharing of sales and income taxes and railway budget (Pakistan, 1991). Moreover, the provinces of Sindh and KP, respectively, received Rs.10 million and Rs. 10.5 million annual grants, however, after the stabilisation of budget position of the former province (KP), its grant was withdrawn and was directed to repay its federal debt, that it had owed to the federal government (Pakistan, 1973).

Raisman Award was presented in December 1947 by Sir Jeremy Raisman that formulated a revenue sharing arrangement between the federal and provincial governments that was adopted after a long delay on 1st April of 1952. After partition, considering enormous financial difficulties the federal government was given 50% ad hoc share of sales tax (Pakistan, 1991). Out of the remaining 50% the then East Pakistan received 45%, while the rest 55% of half of total sales tax was distributed among the federating units of West Pakistan[57] base on population.

Table 4.7: Share of Provinces Divisible Pool under Raisman Award

(In Percentage)

Province	Punjab	Sindh	KP	Balochistan	Total
Population Share	63.58	18.71	14.10	3.61	100
Share in Divisible Pool	59.39	24.14	15.32	1.15	100

Source: Pakistan (1990)

In addition to this, the province of KP received Rs.14.5 million as subvention. As indicated in table 4.8, under this award both Balochistan and the Punjab received a lower share than their population share whereas KP and Sindh on the other hand received more than their respective population share.

[57] Former West Pakistan included the States of Bahawalpur and Khairpur, which later was merged into the province of Punjab and Sindh, respectively.

Table 4.8: Revenue Sharing Arrangement under Various Awards

(Provincial Share In %Age)

Divisible Pool	Raisman Award 1952	NFC Award 1961	NFC Award 1964	NFC Award 1970	NFC Award 1974	NFC Award 1979	NFC Award 1985	NFC Award 1991	NFC Award 1997	NFC Award 2002	NFC Award 2006	NFC Award 2009
Income Tax and Corporation Tax	50	50	65	80	80	80	80	80	37.5	37.5	41.5 - 46.25	65 - 57.5
Other Direct Taxes									37.5	37.5	41.5 - 46.25	65 - 57.5
Sales Tax	50	60	65	80	80	80	80	80	37.5	37.5	41.5 - 46.25	65 - 57.5
Excise Duty				80								
Tea	50	60	65								41.5 - 46.25	65 - 57.5
Tobacco	50	60	65	80				80			41.5 - 46.25	65 - 57.5
Sugar											41.5 - 46.25	65 - 57.5
Betelent	50	60	65	80							41.5 - 46.25	65 - 57.5
Export Duties									37.5	37.5		
Cotton		100	65	80	80	80	80	80				
Jute	50	100	65	80							41.5 - 46.25	65 - 57.5
Import Duties									37.5	37.5	41.5 - 46.25	65 - 57.5
Succession Duties		100		100					37.7	37.7	41.5 - 46.25	65 - 57.5
Capital Value Tax on Immovable Properties		100		100					37.5	37.5	41.5 - 46.25	65 - 57.5
Petroleum Surcharges									100	100	41.5 - 46.25	65 - 57.5
Gas Development Surcharge									100	100	41.5 - 46.25	65 - 57.5
Divisible Pool Transfers as % of Federal Tax Revenue	**12.8**	**23.1**	**35**	**53.4**	**29.8**	**29.8**	**29.8**	**35.3**	**37.3**	**37.3**	**41.50 - 46.25**	**56 - 57.5**

Source: NFC Reports (various years)

The federal government continued to administer the sales tax, with the provinces allowed to get 50% of net collections in their respective areas. Net proceeds on excise duty on Tea, Tobacco and Betelnut were divided among the provinces according to the formula adopted in the case of income tax receipts (Pakistan, 1974).

Raisman Award continued till 1961 even after three years (in 1955) of the award the all provinces of West Pakistan were amalgamated into One Unit, eliminating their status as separate entities which they enjoyed hitherto. Thus, in 1961 a Finance Commission appointed by the then president tabled its proposals for resource distribution in December, 1961. Considering the weak economic condition of the provinces, the Commission also proposed that grants-in-aids and other transfers to be made to the provinces.

Under this award, 60% and 50% share of income tax, sales tax and excise duty on tea, tobacco and sugar were given to the provinces with the share of 54% of West Pakistan and 46% to East Pakistan. Likewise, provinces were given 100% share in export duties on cotton and jute and succession duties and tax on capital value on immovable properties (table 4.7), with share of 54 and 46% respectively to West and East Pakistan. In addition, the units received 30% of sales tax and 100% of agriculture tax based on collection in their respective areas (Pakistan, 1991). In order to give more cushions to the provinces, the latter were given relief in loan repayment, owed to the federal government. All loans, except foreign loans, made to the units by federal government were reduced by half which were repayable within 25 years time with 3.5% rate of interest (Pakistan, 1974).

However in *1964 National Finance Commission*, established under the 1962 constitution's Article 144, the scope of the divisible pool was narrowed down to tax on income, export and excise duties, respectively along with other changes in distribution. The Commission recommended 65% share for federal government and 35% for provinces from the divisible pool.

The taxes included in the divisible pool under this Commission were as follows:

1. Income tax: included corporate tax but excluded the remuneration paid out of the federal consolidated funds.
2. Excise duties on Tea, Tobacco and Betelnut.
3. Export duties on Jute and Cotton.
4. Sales tax.

Moreover, the 1964 Commission also proposed that the allocated funds to the provinces would be used for development purposes and for recurring expenses the latter may endeavour to get additional revenues from own sources mainly through agricultural taxation.

National Finance Committee of 1970: Under the federal finance minister a committee was formed in April 1970 to work out and recommend an intergovernmental resource transfer mechanism. The committee recommended changing the revenue sharing arrangement between the federal government and the units. However, the horizontal distribution among the provinces in West Pakistan was not unchanged – it took place on the basis of population. The vertical distribution was 20: 80% respectively for the federal and provincial governments. Out of 20% of provincial share the East Pakistan received 54% – a remarkable departure from the previous awards in which the East Wing's share had invariably remained lesser than its western counterpart. The remaining 46% was given to the West Pakistan and distributed among the provinces based on population. As indicated in table 4.9 the provinces of KP and Balochistan received more than their population share. Moreover, similar to the previous award the provincial governments received 30% of the sales tax because of collection from the respective areas.

Table 4.9 : Share Of Provinces in Divisible Pool 1n 1970 Award

(In Percentage)

Province	**Punjab**	**Sindh**	**KP**	**Balochistan**	**Total**
Population Share	60	22.50	13.5	4	100
Share in Divisible Pool	56.50	23.50	15.50	4.50	100

Source: Pakistan (1991)

Even after 1971 when East Pakistan was separated, and eventually the One Unit was collapsed, the respective provinces continued to get transfers with the same proportion. Yet the size of the revenue was bigger (Ahmed et al., 2007).

4.9 FINANCIAL ARRANGEMENT IN 1973 CONSTITUTION: THE NFC AWARD

Article 160(1) of the 1973 constitution makes it mandatory for the government to constitute a NFC Award at the interval of every 5 years. The distributional mechanism under the NFC may be in accordance with need and goals for the equal development of all provinces. Hence, the NFC recommends procedures of width and breadth of resource mobilisation and its distribution under a prescribed systematic formula.

Thus, executing constitutional requirement the Prime Minister of Pakistan constituted the first NFC after the implementation of 1973 constitution in 1974. This put forward recommendations on the following areas:

1. Distribution of net proceeds between the federation and the provinces;
   I. Income tax, which included corporate tax but excluded income tax paid remuneration out of the Federal Consolidated Fund.
   II. Sales tax on goods' productions and purchases.
   III. Export duties on Cotton.
2. Disbursement of grants-in-aids and other such grants to the provincial governments by the federal government.
3. Conferring of external and internal borrowing power to federal and provincial governments.

The NFC Award in 1974: This award was the first one concluded after the 1973 constitution whereby the scope of divisible pool remained limited to income taxes, sales tax and export duty. It proposed that the distribution of net proceeds of allocable federal taxes between the central government and the governments of federating units would be based on 20:80%. For vertical distribution population being the sole criteria placed the Punjab province as major beneficiary, as suggested in table 4.10.

Table 4.10: Share of Provinces in Divisible Pool in 1974 Award

(In Percentage)

Province	Punjab	Sindh	KP	Balochistan	Total
Population Share	60	22.50	13.5	4	100
Share in Divisible Pool	60.50	22.50	13.50	3.86	100

Source: Pakistan (1974)

The commission also recommended fixed per annual subvention grants of Rs 50 million and Rs 100 million respectively to KP and Balochistan in order to support their deteriorated financial positions. The grants-in-aid would be granted to the provincial governments for the maintenance of roads and national highways, whereas, grant-in-aid for the sharing of the cost of maintaining the strategic road(s) would be decided though consensus by the federal and provincial governments (Pakistan, 1974).

National Finance Commission Award of 1979: As the constitutional requirement, in 1979 NFC was constituted under the chairmanship of the then federal minister, Mr. Ghulam Ishaq Khan to formulate a new resource distribution setup. However, due to extreme social unrest and political upheaval in the country the Commission was unable to conduct any meeting and therefore could not advance a new award. In order to distribute resources between the federal and the provincial governments the 1974 NFC Award was followed with same vertical and horizontal distributional formulation. Nevertheless, after the 1981 census, when the demographic structure of respective provinces changed, the award readjusted itself and accommodated the percentage share of population of the provinces.

Table 4.11: Share of Provinces in Divisible Pool in 1979 Award

(In Percentage)

Province	Punjab	Sindh	KP	Balochistan	Total
Population Share	60	22.50	13.5	4	100
Share in Divisible Pool	57.97	23.34	13.39	5.30	100

Source: Pakistan (2006)

Since the population share of Balochistan had increased marginally so did its share horizontal distribution. The share of KP remained unchanged, while, Punjab's share has declined and Sindh experienced a slight improvement in its situation (see table 4.11).

The NFC Award in 1985 was constituted under the chairmanship of Dr. Mahbubul Haq, then federal finance minister. The Commission held 9 meetings to discuss and deliberate thoroughly on various angles of resource distribution. However, amid wide disagreements on the issues of vertical and horizontal resource sharing, the Commission was unable to develop a consensus on finalising its recommendation for a new award. As a result, like previous award, this one also could not produce any tangible outcomes in terms of resource distribution. Consequently, the recommendations of 1974 award were carried out for resource distribution considering the new demographic structure of the provinces for horizontal distribution.

The *Fourth NFC Award* was formed in 1990, after a gap of almost 16 years presented its final recommendations in April 1991. The award was considered a historic achievement. In the sense that it came after a long delay during which the provinces had experienced large and chronic budget deficits positions mainly due to the unbalanced intergovernmental resource transfer pattern. The remarkable accomplishment of this award was that for the first time in Pakistan's history the size and scope of the divisible pool was expanded with the inclusion of taxes and duties, such as duties on Sugar and Tobacco that hitherto had remained out of divisible pool. Another significant development in 1991 award was the tremendous growth of horizontal share of the provinces: the latter registered a noticeable 60% growth; from 28% (Rs 39 billion) in previous award to 45% (Rs 64 billion) in 1991 award (Ghaus and Pasha, 1994).

However, the Commission was not successful in including custom duties in divisible pool despite strong demand from the provinces in its favour. Another major failure of 1991 Award was not to achieve an agreement on horizontal resource distribution. Therefore, the existing formula of population was carried out as a sole criterion despite serious doubts and reservations from the less populated provinces, particularly from Balochistan, which was worst affected from population being the single criterion.

Under the recommendations of this award 80% of income tax, sales tax, excise duties on Tobacco and Sugar, export duty on Cotton, which formed the divisible pool were transferred to the provinces from the federation. That was further distributed among the former on the basis of population as presented in table 4.12.

Table 4.12: Share of Provinces in Divisible Pool in 1991 Award

(*In Percentage)*

Province	**Punjab**	**Sindh**	**KP**	**Balochistan**	**Total**
Population Share	60	22.50	13.5	4	100
Share in Divisible Pool	57.88	23.28	13.54	5.30	100

Source: Pakistan, 1991

However, notwithstanding such failure the 1991 Award is considered a way-forward towards fiscal decentralisation. That was because of the fact that the provincial share in total revenues collected by the federal government registered a quantum leap to 18% compare to the previous awards. This increment happened largely due to the inclusion of excise duties on Sugar and Tobacco into the divisible pool that erstwhile were not divisible (Ahmed et al., 2007). Additionally, in pursuance of Article 161 of the constitution this Award for the first time recognised the rights of the provinces on surcharges and royalty on natural gas and net hydel profit respectively. The provinces were also given excise duty on crude oil in the shape of straight transfers.

Though, the horizontal transfer did not change as the population being the only distributional criterion, the size of the transfer increased because of the bigger volume of the divisible pool. Other major steps taken in this Award that increased the fiscal autonomy of the provinces included: first, the provision of special grants and straight transfers to finance the development needs of provinces. Under the special grants to the provinces' financial heads, the Punjab, Sindh, KP and Balochistan were granted Rs 1000 million, Rs 700 million, Rs 200 million and Rs 100 million respectively in 3rd, 5th, 3rd and 3rd years (Pakistan, 1991). And second, alongside the inclusion of federal excise duty and sugar and tobacco in divisible pool, the share of provinces in two pivotal federally collected taxes – sales tax and corporate income tax – has also increased to 80% (Sabir, 2001). It is maintained that the intergovernmental transaction from federal

to provincial governments increased many folds. Yet a serious issue remained unresolved: the provinces were not motivated to build their own infrastructure to generate revenues, which could guarantee the latter's fiscal autonomy (Jaffery and Sadaqat, 2006; Ahmed et al., 2007).

The Fifth NFC Award was formed under the federal caretaker finance minister Mr. Shahid Javed Burki in December 1996. He presented his recommendations in February 1997. This Award was a departure from its predecessors in many respects. Most notably it not only expanded the size of the divisible pool with the inclusion of all tax revenues but also extended the royalties and development surcharges on crude oil and natural gas respectively to the provinces in the form of straight transfers. In other words, the Commission recommended that in every fiscal year each province would be given "a share in the net proceeds of the total royalties on crude oil, an amount which bears to the total net proceeds the same proportion as the production of crude oil in the province in that year bears to the total production of crude oil" (Jaffery and Sadaqat, 2006: 217). Likewise, each province would get net proceeds of development surcharges on natural gas equivalent to the well-head production of gas situated in that province.

However, the horizontal resource formula stuck to the population as the singular criterion. This formula resultantly provided the most populace province of Punjab with the greatest advantage at the expense of the least populated but the biggest in term of territory and poorest province of Balochistan. To Punjab 57.88% of total proceeds was allocated and Balochistan while is the richest in terms of resources only received 5.30%. These data are presented in table 4.13.

Table 4.13: Share Of Provinces in Divisible Pool 1n 1997 Award

(In Percentage)

Province	Punjab	Sindh	KP	Balochistan	Total
Population Share	60	22.50	13.5	4	100
Share in Divisible Pool	57.88	23.28	13.54	5.30	100

Source: Pakistan (1997)

In addition, the Award also recommended grants-in-aids for the two least developed provinces: KP and Balochistan received Rs. 3310 million and Rs. 4080 million respectively each year for five years subject to the 11% annual increment in order to adjust for inflation. Moreover, the same also included matching grants for those provinces that would maintain minimum 14.2% growth rate in provincial receipts, impose new local taxes and withdraw unnecessary exemptions. In doing so, they would receive the maximum amounts in the subsequent year. Maximum grants for each province was as follows (Jaffery and Sadaqat, 2006):

Punjab and Sindh:	Rs 500 million each, and
Balochistan and KP:	Rs 100 million each

The economic downturn during this period constrained the federal government financial positions. Consequently, the federal government redesigned and curtailed the federal transfers to the provinces. Table 4.14 highlights a short fall in all transfers during 1997-98 to 2000-01 financial years. The short fall in divisible pool was more acute than straight transfers and subventions. For instance, the actual transfers to the provinces during 1997-98, 1998-99, 1999-00 and 2000-01 have been Rs.25.532 billion, Rs. 24.9922 billion, Rs. 27.494 billion and Rs.30.111 billion against the projected transfers of Rs. 38.941 billion, Rs.43.304 billion, Rs.49.498 billion and Rs. 58.92 billion, respectively. Looking at subventions and straight transfers, one may realise that the provincial actual receipts were slightly different amount compare to the projected one.

One of the fundamental developments in 1997 Award was the bifurcation of public expenditure into priority and non-priority categories. While the former contained expenditures on defense, social services, development of key infrastructure and debt serving. The latter described as general administration, community services, economic services among others (Sabir, 2001). The basic rationale of this division of expenditure was to ensure the first line of expenditure (priority expenditure) in case of any shortfall in the targeted revenues. At the same time it meant to even out the development path of priority sector of the economy.

Unlike the previous Awards, this Award included all taxes which were collected by federal government in divisible pool. This was perceived as a positive development toward fiscal decentralisation. It was optimistically believed that as a result of the thriving macroeconomic profile - high economic growth rate, low inflation, and higher resource mobilization thanks to tax and tariff reform - the expanded divisible pool would meet the resource requirements of the provincial governments. Yet, because the high economic volatility and slowdown in world economy and consequently drastic decline of imports prices that affected the import tax collections the size of the divisible pool suffered a lot as a result. Besides, the domestic economic recession accompanied by tax concession extended by the then government to boost supply side economy resulted into a drastic fall of income taxes and sales tax. This left a major impact on divisible pool and reduced transfers from federal to provincial governments. Leaving a short fall that was not only on divisible pool but also on straight transfers and subventions with lesser degree in the latter.

Table 4.14: Federal Transfers to Provinces (From 1997-98 To 2000-01)

	1997-98	**1998-99**	**1999-00**	**2000-01**
Divisible Pool				
Actual	25.532	24.9922	27.494	30.111
1997 NFC Award Projections	33.28	36.481	40.822	46.691
As per 1991 NFC Projections	38.941	43.304	49.498	58.92
Straight Transfers				
Actual	4.986	4.602	5.733	6.369
1997 NFC Award Projections	5.816	5.992	6.294	6.742
As per 1991 NFC Projections	5.816	5.992	6.294	6.742
Subvention				
Actual	1.812	1.904	1.943	1836
1997 NFC Award Projections	1.814	1.904	2.04	2171
As per 1991 NFC Projections	0	0	0	0
Total Transfers				
Actual	32.329	31.498	35.169	38.315
1997 NFC Award Projections	40.91	44.376	49.156	55.605
As per 1991 NFC Projections	44.757	49.296	55.792	65.662

Source: Sabir (2001) and NFC Report (1997)

Despite having 11 meetings and intense deliberations, *The 6th NFC Award*, constituted in July 2000, failed in formulating a new resource distribution. The key reason for the

failure was lack of consensus among stakeholders on vertical and horizontal distribution. The federal government strongly resisted the provincial governments' demand for at least 50% share. The claim of Balochistan and KP to diversify the horizontal distribution criteria by including other indicators such as poverty, backwardness and inverse population along with population was turned down by the Punjab. The latter wanted the population to remain the sole criterion for horizontal distribution. Therefore, this Award completed its 5 years period without any achievement (Khatak et al., 2010).

The NFC Award in 2006 also failed to develop a consensus among the stakeholders about resource distribution between the centre and provinces. This stalemate led the Commission to the final option in which the provincial chief ministers entrusted the authority to the president to declare a 'just and agreeable-to-all' Award. The president under the Article 160(6) of the 1973 constitution amended the "Distribution of Resources and Grants-in-aids Order, 1997", and announced a new award on July, 2006. The provincial share was proposed to increase from 41.50% to 46.25% in both divisible pool and grants. The divisible pool included taxes on income and wealth, sales tax, capital gain tax, and duties on custom and excise; besides other tax revenues mobilised by the federal government (Pakistan, 2006).

Three broad categories markedly differentiate this Award from the previous ones. Firstly, instead of a static share of provinces in divisible pool, for the first time it set up varied share of the provincial governments – that started from 41.50% in first year and ended up with 46.25% in last year of this Award. Secondly, it included the Punjab and Sindh as recipients of subventions grants, which did not receive before. Thirdly, it also incorporated $1/6^{th}$ of the net proceeds that would be transferred further down to the district governments through provincial governments. The latter's demand for at least 50% share from the divisible pool was not met. But it nonetheless increased their share from the 37.25% of last two awards.

The criterion for horizontal distribution still remained solely on population. Balochistan's demand to include poverty, inverse population and geography as criteria was rejected because of the Punjab monopoly on Pakistan entire establishmen

Table 4.15: Share of Provinces in Divisible Pool in 2000 Award

(In Percentage)

Province	Punjab	Sindh	KP	Balochistan	Total
Population Share	60	22.50	13.5	4	100
Share in Divisible Pool	57.36	23.71	13.82	5.11	100

Source: Pakistan (2006)

As indicated in table 4.15, Balochistan despite having 43% of total territory of the country and with highest per capita cost in economic and social services provision (Nabi and Sheikh, 2011), and highest poverty rate[58] received the lowest transfers from the divisible pool. In contrast, Punjab still has remained the prime beneficiary – with 57.36% share.

Table 4.16: Transfer to Provinces from Federation

(Rupees in billions)

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
divisible Pool	204.8	244.6	320.6	391.3	477.4	569.8
Straight Transfer	40.5	56.8	70.3	65.9	82.4	85.4
Special Grants/Subventions	35.3	63.5	29.3	33.3	40.6	52.9
Project Aid	15.5	17.5	16.3	19.1	26.3	26.9
Agriculture Sector Loan	1.4	2.8	2.6	1.1	0	0
Japanese Grants	0.1	0.1	0.1	0.04	0.02	0.09
Total Transfer (gross)	**297.6**	**385.2**	**385.2**	**510.8**	**626.8**	**735.1**
Interest Payment	24.3	21.6	21.6	19.9	18.5	16.8
Loan Repayment	28.7	14.7	14.7	25.4	21	20.4
Total Transfers (Net)	**244.6**	**348.9**	**348.9**	**465.6**	**587.3**	**697.9**

Source: Pakistan (2009-10) and Budget in Brief (2008-09)

Table 4.16 presents the federal government's total transfers under various heads since fiscal year 2004-05. We noticed that total transfers has increased from Rs. 244.5 billion in 2004-05 to Rs. 697.9 billion, showing a significant development towards fiscal

[58] According to recent estimates by Social Policy Development Institute (2012), In Balochistan more than 52 percent of population lives below the poverty line whereas in Punjab, Sindh and KP the poverty rate is 19 percent, 32 percent and 33 percent respectively.

decentralisation. It is worthwhile to note that the transfers from divisible pool rose by around 178% within six years.

T*he 7th NFC Award*'s final recommendations were not less stringent. Balochistan and KP insisted on the inclusion of indicators like poverty, backwardness and inverse population density. Sindh[59] demanded to include sales tax on services and revenue generation as criteria for horizontal distribution along with population. Punjab insisted on uni-variable criterion-based formula. On December 2009 the Award was succeeded unanimously and made number of tangible recommendations for both horizontal and vertical distributions. The Commission under the chairmanship of federal finance minister, Mr. Shoukat Tareen, developed a consensus among all members and resultantly recommended a plausible award to the Prime Minister (Mustafa, 2011). The Award introduced some fundamental changes. Such as:

1. A drastic step towards fiscal decentralisation by increasing the provinces' share in divisible pool to 56% in first year, effective from first July, 2010 and 57.5% in remaining 4 years of the Award. The collection charges, which hitherto had been 5% by the federal government has been reduced to 1%. The federal government also relinquished the sales tax on services under federal excise duties to the provinces (Nabi and Sheikh, 2011).
2. Alongside vertical distribution the horizontal distribution has also undergone into a major shift. Population as a sole resource distribution criterion among provinces very often caused impasse in previous Awards. It resulted in inconclusive outcome. This Award is a positive step to mitigate the horizontal imbalance by diversifying the distribution criteria. It has included in the assessment of the award besides population factors such poverty, backwardness, resource mobilisation and inverse population density. As table 4.17 shows the inclusion of indicators like poverty/backwardness and inverse population density benefits Balochistan and KP. It is true that the population (with 82% weight) still

[59]It is important to mention that Sindh province contributes more than 60 percent of total tax revenues. It not only hosts majority of industries but virtually all custom duties. Sindh has only functional port of the country. Another port at Balochistani town of Gwader was constructed in 2008 with the help of China (Ferguson, 2011) but it is yet fully operational.

remained the major indicator compare to other indicators, therefore, the Punjab maintained to be the prime beneficiary. However, due to the enlargement of the provincial share in vertical distribution and inclusion of other indicators, the provinces received a financial relief to consolidate their deteriorating budgetary positions.

3. In order to compensate the provinces that faced extraordinary financial difficulties special considerations have been made. For example, it was pledged that the province of Balochistan would get not less Rs 83 billion under the divisible pool transfers. Therefore, its share in divisible pool has increased to 9.09%, as indicated in table 4.17, from the actual 7.17% based on 4 indicators criteria for horizontal distribution. KP receives one% extra fund out of the divisible pool for being at the frontline of war against terror.
4. In every fiscal year, it was agreed that each province would receive 50% of net proceeds on total royalty on crude oil. Additionally, Balochistan was to receive Rs 120 billion under the head of Gas Development Surcharges. The federal government owed this amount to Balochistan. An agreement was made between the federal government and Balochistan that the former would pay the amount within a period of 12 years. Likewise, it was agreed that KP would get Rs 110 billion on the head of hydel profit in the course of 5 year time (Pakistan, 2010).

The bottom line of the 7th NFC Award is that the federal government conceded to the fact that without greater fiscal decentralisation provinces would fail in providing social and economic services like education, healthcare basic infrastructure, drinking water and sanitation. Considering the provinces high fiscal need, the current award took a big step in providing bigger slice of the fiscal revenue to the provincial governments in order to enable them to provide better social services to their people.

Table 4.17: Distribution Criteria for 7th NFC Award

(Share In Percentage)

Indicators	Population	Poverty/ Backwardness	Revenue Generation	Inverse Population Density	Grants for Compensation on account of OZ&T*	Grant for War on Grants for War on Terror**	Share on the basis of previous award	7th NFC Award
Weight	82	10.3	5	2.7			100	100
Punjab	57.37	23.16	44	4.34			53.01	51.74
Sindh	23.71	23.41	50	7.21		0.66	24.94	24.55
KP	13.82	27.82	5	6.54	1.8		14.88	14.62
Balochistan	5.11	25.61	1	81.92			7.17	9.09

Source: NFC document (2010) and Nabi and Sheikh (2011)

*Grant-in-Aid to Sindh province is equivalent to 0.66% of the net Provincial Divisible Pool, is given as compensation for losses on account of abolition of OZ&T

**The grant for war on terror is 1% of the total divisible pool, which is equivalent to 1.8% of the provincial share in the net proceeds of Provincial divisible pool

4.10 POLITICAL ECONOMY OF FISCAL DECENTRALISATION

Fiscal decentralisation was always resisted by strong military and civil bureaucracy and other centralist forces. These forces thwarted every attempt that was made towards decentralisation including the formation of consensus-based NFC Award that could reflect fiscal needs and development goals of all provinces.

The NFC Award is a political economy issue. In game theory the stakeholders bargain over the resource distribution. In case of failure to reach into a consensus they retreat willingly or otherwise to previous Award which is not optimal. Similarly, a consensus-based and multi-factors NFC Award to certain degree promotes provincial autonomy and fiscal decentralisation. Political economy discourse in Pakistan shows that forces hostile to decentralisation missed no opportunity in sabotaging any attempt made towards fiscal decentralisation and provincial fiscal and political self-rules. Out of 7 NFC Awards in total constituted after the promulgation of the 1973 constitution, only 4 commissions effectively concluded with their recommendations with consensus.

Failing to hammer out a new consensus-based Award would by design compel the stakeholders to adopt the recommendations of the existing Award. As we noticed throughout this chapter, the continuation of current Award would benefit the Punjab most. Because the biggest objection of other provinces has been that the population should not be the sole criterion for horizontal resource distribution. And retreating to the current Award inherently implies the perpetuation of population-based distribution that obviously advantages the Punjab. Thus, in a game theoretic framework the Punjab being an influential stakeholder frustrates any move driving to diversify the distributional criteria.

The critical nature of resource distribution lies on the mere fact that it will empower smaller provinces. It will entitle them to a just and equitable share of resources from divisible pool, which makes them fiscally capable to finance their development. Hence, NFC Award is the only mechanism through which the provinces can fetch a due share of resources to ensure their fiscal autonomy. The approach adopted in various NFC

Awards and reliance on population is completely biased towards the dominant province and central political establishment.

This policy has not only hampered the provincial autonomy and fiscal decentralisation but also created serious fraction and rift between central-provincial relations. The country which had already lost her eastern wing due to the "biased resource distribution", including of course other reasons, in the favour of the west wing is encountering similar danger from Balochistan. So it is felt that the country needed such a resource distribution mechanism that not only revamped the vertical distribution to enhance provincial fiscal autonomy but to incorporate other criteria for the horizontal distribution alongside population. The matter of resource distribution has never been an easy business in any federation. It is said that serious and collaborative deliberation and honest approach to the issue across the board may help to harmonise the coexistence of different nations under one political framework.

The pure public finance of fiscal decentralisation suggests that political competition, within many circumstances, moderates the political distortions. However, the success of fiscal decentralisation depends largely on certain institutional parameters, such as democracy, rule of law and equity. Analysts of political economy of Pakistan consider a significant role of rural elite or landlord in policy making. In Pakistan the majority of population lives in rural areas, and rural gentry capture the local politics; one would expect fiscal decentralisation to worsen the outcomes, at least in rural areas. Nonetheless, the mere fact that the rural gentry are not a monolithic class, rather they vigorously fight for political power, and the stranglehold of local elite has loosing over the time. Furthermore, the strength of landlords traditionally comes from the land concentration. But evidence (For example, Zaidi, 1999) shows land distribution through inheritance seems not be a big source of policy outcomes in rural areas. Therefore, the argument that, fiscal decentralisation leads to have distorted policy outcomes due to the dominance of the landed gentry in political economy of Pakistan, does not seem to be grounded on sound evidence.

The model of elite capture or for that the influence of other influential groups, be they civil bureaucracy, the military top brass or the business class, may not capture several

other political and economic dimensions that potentially affect the outcomes of fiscal decentralisation. One of the crucial dimensions of electoral politics is the credibility of pre-electoral promises of political parties. In Pakistan the mainstream political parties albeit make pre-electoral promises of better social services, however, when it comes to action they fail to ensure the provision of essential social services such as health and education, which is evident from the dwindling social sector of the country. Therefore, it is fair to argue that mainstream politics of Pakistan is least credible, and such lack of credibility leaves a negative impact on policy outcomes. On the contrary, if electoral politics presents local people with regional competitors with more credible promises to them on broader range of policy issue, including better social service delivery, fiscal decentralisation has the potential to improve the policy outcomes. Moreover, if the non-peculiarity of rent seeking is higher for local representatives than the national level representatives, then inherently decentralisation would improve the policy outcomes by making the politicians less inclined towards rent seeking. On the other hand, however, if the non-peculiarity rents from being national representatives are higher compare to local office, then policy outcomes would be worse off under fiscal decentralisation.

Another important factor worth considering regarding the political economy of fiscal decentralisation in Pakistan is the effects of the latter on corruption. It is useful to consider rent-seeking because public resources that serve no any purpose except enriching politicians is a major source of distortion in policy making outcomes, and the interest of fiscal decentralisation is also triggered among politicians and policy makers to ensure more rent-seeking. Political economy models (for example, Bardhan and Mookherjee, 1999; Persson and Tabellini, 2000; Keefer, 2002) show that in a situation when electorates are unable to force politicians to compete for better service delivery, rent-seeking bahaviour remains high among politicians. Thus, in the absence of competitive electoral political environment that exerts pressures on politicians; rent-seeking is an eminent threat. Factor such as absence of credibility and electoral uncertainty encourage politicians to divert maximum possible public resources for self-benefit and pursue rents. Whether or not fiscal decentralisation encourages rent-seeking depends largely upon the consistency and certainty of elections and credibility of political parties. In Pakistan although the crisis of credibility is much stark for national

level political parties than regional ones, the electoral uncertainty is likely to be equal at both central and sub-national level. Therefore, under decentralisation politicians are equally likely to seek rents, as otherwise the case under centralisation. However, it is pertinent to argue that fiscal decentralisation in Pakistan would be expected to enhance the outcomes of public policy, as local politicians perceive a longer political horizon or may believe that malpractice of public office would have a negative consequence of their post-office life in locality.

4.11 CONCLUSION

The federation of Pakistan has gone through various challenges mostly financial, political and geographical since her creation. Among them financial distribution has been pivotal in shaping the strength and direction of the federation. The federal structure of Pakistan demands cooperative and accommodative federalism wherein the provinces can enjoy maximum political, administrative and fiscal autonomy. Despite centralist grip over political and military power the overall mood of the country has always been in the favour of greater decentralisation. One of the central issues of federalism in Pakistan is the vertical and horizontal resource distribution between federal and provincial governments. This remains a central issue of hostility until a solution is found that takes into count the legitimate rights of each province.

The history of resource distribution discussed in this chapter reveals that the failure of the stakeholders in reaching to a consensus-based distribution formula under various NFC Awards is a political issue. A broad-based distribution mechanism has always been resisted by the centre and the Punjab province. As a result the process of fiscal decentralisation has not been evolved amicably. It has created a sense of deprivation and alienation among smaller provinces. Prior to the 7^{th} NFC Award, population had remained the sole criterion for vertical resource distribution. This policy stands in stark contrast to the world best practices of resource distribution among federating entities.

The vertical resource distribution has always been unbalanced. But since 1990 Award the share of provinces and scope of the divisible pool has been increasing by including more taxes and duties. Overall, the trend has been towards the fiscal decentralisation.

For a successful and effective decentralisation system the provincial governments need to enhance their administrative capacity to ensure efficient implementation of service delivery and revenue generation. These obligations are mandated in the 7th NFC Award.

In the following chapter we provide an overview of the issues and debates related to poverty in Pakistan.

CHAPTER 5

POVERTY IN PAKISTAN: APPROACHES, MEASUREMENT, TREND AND POLICY IMPLICATIONS

5.1 INTRODUCTION

This chapter begins with a brief definitions and measurements of poverty. This follows by a thorough discussion of the nature, scope, causes and trends of poverty in Pakistan. While presenting the poverty profile, an attempt is made to highlight the institutional factors related to either the causes of poverty or the impediments that obstruct ameliorating poverty. The analysis of poverty includes a broad-range of issues such as conceptualisation and measurement of poverty, institutional impediments and variation of poverty trends over the decades. To study a wide subject such as poverty in a diverse country like Pakistan, that too for a long time period, is a daunting task. But in the run of this chapter some attempts are also made in presenting a critical examination of the institutional and political economy issues that are viewed to be the potential hurdles in reducing poverty.

The first ever data on poverty were collected in 1960s. We commence our analysis from this date and then present a comprehensive periodisation of various developments and their corresponding consequences on poverty. Finally we look at the measurement of poverty with various methodologies applied and their implications on Pakistan.

A detailed discussion of issues related to poverty in Pakistan is important because it shows how the trend of poverty changes over time. It also reveals how certain public sector bottlenecks cause poverty in the country. Fiscal decentralisation as a major economic and political reform has a potential impact on poverty directly as well as

indirectly through certain channels. Therefore, the argument of this chapter provides a background for theoretical and empirical analysis of the relationship between fiscal decentralisation and poverty, which we discuss in chapters 4 through 11. As we observe through the course of the chapter, although poverty is relatively a well-researched subject in Pakistan, but a substantive part of the poverty related work is focused on measurement issues, ignoring institutional constraints that happen to be either a great cause of poverty or impede policies aiming to arrest poverty. Analysing poverty trends and other related issues with an institutional framework, which is the theme of this chapter, may be considered as a contribution to the wider poverty related literature.

5.1 MULTIPLE APPROACHES APPLIED TO POVERTY IN PAKISTAN

In analysing poverty two approaches are worth discussing. The first one is the conventional and is largely accepted approach. In this approach poverty is statistically and econometrically measured. This approach has broadly been used for the measurement of poverty in Pakistan. The second approach is a more 'inclusive' and process-based approach. Alongside income or consumption, other dimensions such as education and health are also included in the model. The review of existing literature on poverty shows that the latter approach despite gaining an overwhelming popularity has remained limited in its application and scope in the case study of Pakistan (Gazdar and Zaidi, 1994).

Most literature on poverty, specifically those dealing with developing countries, employs absolute 'poverty line'[60] for poverty measurement. Following the general trend, almost the entire literature on poverty in Pakistan uses absolute poverty line in measuring poverty. Certainly the central focus of the conventional literature of poverty has been to define and measure poverty adopting a monetary approach of poverty: to classify and identify the poor; and to decide the poverty reduction strategies. However, a recent trend has emerged within the literature that expanded the analysis to include the

[60] The conventional approach of poverty simply constitutes the failure to obtain a minimum acceptable level of income necessary to meet a given level of consumptions – which is established through a "poverty line". This indicates that those individuals or households are considered poor who grossly failed to attain the given level of income and therefore fall below the poverty line (Ravallion, 1992).

ethical, social considerations (Dasgupta, 1993; Sen, 1999; 1993) and democratic and community elements (Chambers, 1994, 1995; 1998; Duraiappah et al., 2005). Since the 1990s these approaches have been used by many organisations[61] and researchers in poverty assessment in Pakistan. According to this approach poverty is chiefly caused by socio-economic and political constraints. The poor and marginalised social and ethnic groups are barred from taking an active and productive part in social, political and economic endeavours. Such restrictions not only dent the social and ethical well-being of the poor, it also reduces or completely prevents the poor from having access to opportunity and economic progress (Novak, 1996).

As we noted from the chapter 2 the participatory approach is linked with the income or consumption approach: it incorporates the 'power of consumption' or 'having a decent income' in its broader definition. Gazdar (1999) in explaining the rationale in using income or consumption based poverty and connecting it to the participation approach argues: "the original arguments behind income – or consumption – based approaches was that they are proxies for capturing precisely this ability of individuals to participate freely and with dignity in the affairs of the community, and to achieve objectives might have reason to value" (Gazdar, 1999: 244). This approach of poverty, therefore, allows institutions or government agencies to address the areas that potentially restraint the poor from participating in social processes and economic mobility.

Sen (1992) argues that the participation-based approach of poverty enables us to identify the causes which create poverty and consequently help in suggesting possible remedies for it. This approach of course is very popular among the development economists and public policy designers in many developing countries including Pakistan. In Pakistan, for example, both private and public sectors' financial institutions are encouraged to extend micro-credits to the poor to enable them to have access to formal credit market and hence participate freely in economic activity (Stevens et at., 1976; WB, 1995; Zaidi 1999b).

[61] The World Bank (1995; 2003; 2005) and the UNDP (2003) in their respective poverty assessment report on Pakistan include social (non-income) indicators such as education and healthcare alongside per capita income.

Another challenge to the poor in Pakistan (as in many developing countries) that is not taken into account in income or consumption assessment is the 'inability of the poor to read and write'. In other words, Pakistan has been facing an acute form of poverty which is "illiteracy." Moreover, poor health and prevalence of various diseases are widely considered as another form of poverty that Pakistan has seriously been suffering endlessly. Illiteracy and poor health are regarded as the underlying causes in hindering the poor from participating freely and actively in social and economic affairs.

These drawbacks are partially due to certain social, political and religious taboos that are ingrained in Pakistan's entire fabric. For example women, by and large, are excluded from socio-economic participation. The participatory approach takes into account these socio-cultural and political issues while defining poverty (Dreze and Sen, 1989; Haq, 1997).

In Pakistan the majority of the poor live in rural areas and around 70% (FBS, 2009) rural labour force are associated with agricultural sector. Moreover, a greater part of this labour is "bonded labour" (Zaidi, 2001). The emancipation of bonded labour from the stranglehold of feudal lords certainly allows the poor to engage in labour markets freely as active and autonomous participants. And free participation of the labour force, therefore, is a necessary if not sufficient condition to allow the poor to escape from the poverty. Both participatory and Sen's capability approaches incorporate the availability of free labour market to the poor in their poverty analysis.

As shown in chapter 2 a crucial yardstick of participation or capability and functioning approach to poverty is the active participation of the poor in political matters. It is worth spelling out that Pakistan, notwithstanding having all the socio-economic and political aspects of poverty, the poverty specialists and the economists have restricted their focus to the monetary approach only. In doing so, they have failed to offer a comprehensive and workable explanation of poverty in Pakistan.

It is suggested that research on poverty and poverty related issues should not be confined only to the conventional income or consumption analysis. Instead, it needs to be expanded to incorporate social, economic and political aspects of poverty to facilitate

the engagement of the institutions that are crucial for poverty eradication. Literature on poverty in Pakistan, as we shall endeavour to demonstrate in the remainder of this chapter, leaves out of the analysis some basic issues. These include such issues as education, health and local infrastructure couple with the corresponding public expenditure on these sectors. Albeit, the calculation and measurement of poverty using primary or secondary data based on any approach is out of the scope of this dissertation[62], however, we consider and analyse health and education as key poverty dimensions. We also study the impact of public sector expenditure on social sector (particularly health and education) and its consequences on poverty.

Pakistan unlike India and other such developing countries neither publishes poverty data regularly nor endorses an official Poverty Line - except for the Planning Commission's provided headcount poverty data for some years - that may be used by academicians and researchers as reference point. This underlines the fact that poverty has not been a priority of both central and provincial governments. Another fundamental reason for not publishing and regularly updating poverty data may be to escape from the expected criticism and wider debate on the status of the poor and performance and criticality of certain poverty alleviation programmes launched by government(s). In other words, successive governments placed less or no priority on poverty alleviation. Hence, having officially endorsed poverty data may invite much criticism from anti-poverty agencies and organisations that have an influence on public debate.

5.2 INSTITUTIONAL CONSTRAINTS AND GOVERNANCE IMPACT ON POVERTY

For rapid reduction in poverty, high and sustained economic growth is obviously essential but that alone is not a sufficient condition. To make the economic growth pro-poor certain institutional constraints need to be removed. For example investing in the health sector has direct ramifications on poverty reduction. Pakistan's performance on health has not been remarkable. Widespread illness and prevalence of diseases are still very common, particularly amongst the low-income strata and the poor. PIDE's (2001) estimates demonstrate that around 65% of extremely poor are suffering from

[62] This study, instead, uses poverty line calculated by numerous authors and institutions (all of them are discussed later in this chapter).

deteriorating health and illness. Hussain (2008) believes that the high prevalence of diseases is a core reason for pushing those into below the poverty line who would hardly manage to survive at the threshold of poverty line as well as puts the already poor and marginalised into a deeper poverty trap. That is because the soaring medical cost not only exhausts the already meager resources of the poor but forces them to borrow from informal lenders and consequently remains indebted for a good part of their lives. Poor health condition and incidence of preventable diseases is potentially due to the negligence of both the federal and provincial governments to this sector. It is best reflected in the share of health to GDP and per capita heath expenditure data that we showed in table 3.9, chapter 3.

Another key sector that has a strong impact on poverty is the education. Sen (1999) considers education is an essential part of human freedom and capability. These are crucial elements for emancipating the poor from the vicious circle of poverty. Therefore, investment on education would have significant impact on poverty reduction. But paradoxically, like healthcare the public spending on education has been very low in Pakistan, in comparison to many developing countries (for example, Iran, India, Thailand, Vietnam, Bangladesh and Malaysia[63]). Pakistan's expenditure on education (as% of GDP) is the lowest. Since education is the key driver of human resource and other socio-economic development, the weak state of education is generally perceived as the main cause of poverty in Pakistan.

Mughal (2007) shows that, in Pakistan an additional year of schooling augments the average earning of workers by 7.3%. Similarly, individuals with 10 years of schooling have 37% more earnings than those without schooling. Furthermore, an additional year of education attainment in primary, secondary and higher level respectively increases the earnings of individuals by 3%, 5% and 7.1% to 8.2%. These evidences highlight the vitality of education in increasing the productivity of the poor and the poverty reductions. Despite the importance of education to empower the poor socially and

[63] These countries respectively spend 5.2%, 3.3 %, 4.5%, 5.2%, 2.6% and 4.7% of their GDP on education. While, Pakistan Spends 2.1% of her GDP on education (World Bank, 2011, and Pakistan (2009-10)

economically, Pakistan failed to provide education to a very large part of population and the majority of them are poor. For instance, Pakistan's interim PRSP (2001) estimates show that in poor households only 27% of head of families are literate against 52% in non-poor households. Compared to other South Asian countries, the poor quality and low quantity (in terms of gross and net enrolments) of education - in both lower and higher education - suggest a low priority given to education. And the low priority and lack of interest in allocating public resources to the healthcare and education sectors are the significant structural constraints that prevent the poor from increasing their productive capacity, and impede them from social and political empowerment.

The allocation of public service expenditure is determined by a specific class (military, civil bureaucracy, feudal lords and high businessmen), which does not display any appetite or has least priority on mass education. That is because the structure of power politics in Pakistan is such that the public expenditure is dominated by military expending and other such expenditures that patronise the elites and their associates at the expense of public sector. Authoritarian power structure in the country always fears mass education as a potential threat to their hold onto the reins of power.

Corruption is thought to be another determinant that adversely impacts on poverty in many ways. Susan (1999) suggests that high levels of corruption distorts investment confidence and weakens economic growth. Krueger (1974) asserts that corruption intensifies income inequality through economic and social distortion from which the powerful groups will benefit at the expense of marginalised ones. Similarly, Johnston (2000) shows that corruption adversely affects the governance by eroding the political institutions' capability and discourages people's participation in democratic processes. Ahmed (2001) states that in South Asian countries including Pakistan poor governance appears to be a stumbling block that hinders the efforts in reducing poverty.

Table 5.1: Selected Governance Indicators

(In Percent)

Year	Rule of Law	Control of Corruption	Government Effectiveness	Voice of Accountability	Political Stability
1996	40.2	29.2	42.2	28.8	21.8
1998	34.2	33.6	35.2	36.4	25.8
2000	35	31.2	39.4	18.6	32.4
2002	35	33	38.6	27.6	19.8
2003	36.2	34	39	26.4	18.4
2004	33.4	28.4	39.6	23.8	16.6
2005	33.8	29.8	39.4	25.4	16.4

Source: Kaufmann, et al. (2005 &2006), and Haq and Zia (2009)

Table 5.1 summarises the governance related indictors where we observe that score of corruption has deteriorated overtime. In its 2007 survey report, Transparency International (TI) places Pakistan among the top most corrupt countries in the world. According to the report corruption and bribery have increased sharply in Pakistan over the years. For instance, in order to get a public service done one has to pay 30% more bribe in 2007 compare to 2006 for the same level of service (TI, 2007). Hussain (2008) believes that poor are forced to pay more bribes to achieve any public service. For the influential and affluent people this does not apply with the same magnitude: they would obtain the same or better social service without paying any bribe. Such phenomenon, consequently, worsens the income distribution between the rich and the poor and will result in more poverty.

Similarly, as elsewhere poverty in Pakistan cannot be judged by looking only at the lack of resources. It also occurs when the people are denied the opportunity to employ their potential abilities and skills. This phenomenon traps the marginal community into a power structure, which is dominated and controlled by 'powerful elite'. This leads to weaken the public institutions, distorts the law and justice and social services delivery mechanism. If such a situation persists it is hard for the poor and marginalised communities to get rid of poverty trap. That is because exclusion and absence of democratic participation are the main characteristics of poverty in general.

In a non-democratic society the poor are normally voiceless. It is highly likely that whatever decisions are made pertaining to public affairs do not reflect the concerns and

predicaments of the poor. On the contrary, it may be argued that in a democracy such hurdles to poverty reduction may be removed by empowering the poor through a participatory process. Ismail (1998) and Ismail and Rizvi (2000) compare the performance of both democratic and autocratic regimes in Pakistan since its independence. They conclude that although economic growth rate has remained higher during dictatorial rules, yet, they have bad record of developing and improving the human capital. On the contrary, during democratic dispensations human and social services sectors received better attention in terms of public investment as the latter governments are more accountable to the people.

5.3 POLICY IMPLICATIONS ON POVERTY FROM 1947 TO 2009

This section briefly but concisely presents and analyses the impact of various policies launched and implemented by different governments – both dictatorial and apparently democratic or quasi-democratic – on the poor and their (in)effectiveness in reducing poverty in a chronological order starting from 1947 when the country came into being.

The first eleven years (1947-1958) is thought to have been the formative period of Pakistan. The political and economic developments during this period were very instrumental in defining poverty trends for the later decades to come. The major failure of this period was to ignore the evolution of democratic institutions, provision of social services, particularly education and healthcare, decentralising the governance and changing the nature of agricultural land ownership. The negligence of the education sector and other social services led to human resource and development deterioration that caused more poverty. Moreover, highly symmetric land ownership predominately in rural areas put the majority of rural poor in the vicious circle of poverty, as the majority of rural poor were directly or indirectly associated with the agricultural sector in Pakistan. Thus, it may be argued that political, economic and social developments of early years laid down the foundation of the nature and trends of poverty in the country for the later years to follow.

After 1958 the country witnessed a profound performance of both industrial and agricultural growth that enhanced per capita income. In first five years of 1960s the

large scale manufacturing sector witnessed an impressive growth, whereas, the agriculture after medium growth rate during the same period, gathered its growth momentum and showed a high growth in second leg of the decade (1965-70) (see table 5.2).

Table 5.2: Average Annual Growth Rates of Key Sectors between 1960 1970

(In Percent)

Growth rates	1960 to 1965	1965 to 1970
Manufacturing sector	16.9	9.9
Agricultural sector	3.7	6.3
Per Capita Income	3.5	3.7

Source: Pakistan Economic Survey (various issues)

Notwithstanding, while the regime had a clear approach and professional competence to the economic management, and somehow commanded the required efficiency to its economic plans, it was extremely indifferent to income distributional issues and paid insufficient attention to social sector development. As a result, with fairly steady and rapid economic growth income inequality and poverty rose to a record high. Highly skewed economic policies brew a social and political discontent related to the issues of poverty and income disparities played a central role in downfall of the government and nullified its economic model. Khan (1972) using the nominal wages and prices data suggests that real wages in industrial sector also declined in the same period. Supporting the same argument Naseem (1977) indicates that the real wage in agriculture in this period has declined despite the rise of per capita income. Similarly, Griffin and Khan (1978; 2000) suggest that the wages of the industrial workers fell by 12% between 1954 and 1967. According to the World Bank (1973) Pakistan is the worst country in Asia in terms of percentage of national expenditures on education, health and local infrastructure that resulted into high population growth, rising poverty and inequality across region and class.

The decade of 1970s started with a new democratically elected dispensation that launched nationalisation of capital and intermediate goods producing industrial units, rice husking and cooking oil (Burki, 1980; Aziz, 2009). The economic reforms of 1970s left a significant impact on redistribution of national income and poverty. Another major

development of this period was the emergence of trade unions in large public sector organisations that provided the workers a platform to strength their financial and political power. Moreover, in 1970s a large land reform was launched to redistribute land to the landless peasants and farmers. That land reform albeit failed to bring a change to the political economy of agrarian relations that could herald the economic empowerment of peasants and rural poor, it improved the living conditions of the poor in rural areas of Sindh and Punjab by giving them land ownership. In addition to the domestic reforms and their subsequent impact of poverty and inequality, the Z.A. Bhutto[64] regime opened up a window of opportunity for Pakistani workers to the oil rich Middle East countries. This economic openness fundamentally brought a positive change to the livelihoods of thousands of the poor and low income households, who started receiving remittances from the Middle East (Burki, 1988; Gazdar, 1999).

The economic reform of 1970s received strong criticisms from some quarters (Burki, 2006; Aziz, 2009 among others) for its economic inefficiency and mismanagement. However, it should be mentioned that during the same decade the country has succeeded in reducing poverty and income inequality, despite experiencing sluggish economic growth.

The key development in political economy of Pakistan in 1980s was the shift from the state intervention in economic affairs to economic liberalism. This period is regarded by many including Burki (1993; 2006); World Bank (1995); Naseem (2008); Aziz (2009) as a fundamental step towards economic growth and poverty reduction. The average GDP growth remained at 6.5% compare to 4.8% in preceding decade and relative reliance of the economy moved away from the agriculture sector to the industrial sector (Pakistan, various issue).

As was stated a moment ago Pakistan's economy witnessed a relatively high growth rate, declining poverty trend and a rising living standard in the 1980s. But it is worth bearing in mind that many exogenous events at domestic and international front played a key role for the economic and social development of 1980s. For instance, the impacts of

[64] Zulfiqar Ali Bhutto was the prime minister and the chairman of the ruling party, Pakistan People's Party, when these reforms were launched in 1970s.

the heavy economic projects undertaken in 1970s, workers' remittances[65] and the positive economic shocks at external front are important to note. In particular, the Afghanistan war played a significant role in explaining economic growth and poverty reduction in 1980s. However, in subsequent decades, Afghan war's fallout equally played a major role in social and economic destruction that caused more poverty.

In 1990s the country faced several social and economic problems that not only adversely affected economic growth and created macroeconomic imbalances but also caused increasing poverty (Gazdar, 1999). The 1990s also witnessed a rising involvement of the IMF and the World Bank. Syeed and Ghaus (1996) and Bangali and Ahmed (2002) believe that the structural adjustment programmes launched with the help of the IMF caused an adverse impact on poverty, income inequality and human development. However, the involvement of the World Bank and the IMF brought a new debate on poverty by emphasizing on 'participation-based' and 'women empowerment approaches' to poverty.

During 1999-2008 the country witnessed a significant decline in poverty, a high economic growth and increase in non-interest and non-defense spending (FBS 2005; 2008; Pakistan, various issues). According to the official statistics the incidence of poverty reduced from 31.6% in 2001 to 25.4% in 2005, and in 2008 it further came down to 17.5% (FBS, 2008; Pakistan, 2007-08). During the same period (2001-2008) the average economic growth rate remained above 6%. Non-defence public expenditure - particularly on education, health, rural electrification, irrigation and roads - has increased by 50% in real term compare to the previous decade (Burki, 2006; Hasan, 2006; and Pakistan, 2009-10). The pro-poor expenditure has risen considerably over these years from 3.1% of GDP in 1999-00 to 7.46% of GDP in financial year 2008-09 (see table 5.3). Looking at the aforementioned statistics on can easily notice that the social and development expenditures undertaken by both federal and provincial governments seemed to be effective in reducing poverty.

[65] In 1983, the peak year of worker remittances, it contributed one tenth of GDP of Pakistan and was one of the highest foreign exchange sources (Pakistan, various issues).

Table 5.3: Social Sector and Poverty Related Expenditure

(Rupees in Billion)

Sectors	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09
community Services	**9.06**	**10.55**	**11**	**16.57**	**28.53**	**41.71**	**63.59**	**76.6**	**104.5**	**121.8**
I. Road, & buildings	4.5	5.45	6.3	13.15	22.75	35.18	35.25	60	85	99.6
II. Water supply and san	4.56	5.1	4.6	3.42	5.78	6.53	10.34	16.6	19.5	22.2
Human Development	**67.51**	**67.977**	**86.8**	**103.9**	**130**	**152.9**	**191.1**	**222.2**	**257**	**330**
1. Education	50.98	52.1	66.3	78.61	97.69	116.87	141.7	162.8	187.7	240.4
II. Health	15.98	15.21	19.21	22.37	27	31.42	39.2	53.2	62.4	83.7
III. Population Planning	0.55	0.667	1.33	3.12	4.68	4.57	10.23	7	6.7	5.3
Rural Development	**9.94**	**14.364**	**24.3**	**34.18**	**44.6**	**59.69**	**78.52**	**101.8**	**152**	**136**
I. Agriculture	3.58	4.2	10.13	15.54	22.5	37.87	59.82	74.8	122.9	88.9
II. land Reclamation	0.56	0.954	1.9	1.8	2	2.11	2.67	2.3	3.1	2.7
III. Rural Development	5.8	9.21	12.33	16.88	18.6	15.35	15.04	22.2	22.8	16.3
IV. Rural electrification					1.42	4.35	1	2.5	2.7	28
Safety Nets	**3.339**	**4.376**	**11**	**27.11**	**16.9**	**11.34**	**36.12**	**18.72**	**436**	**276**
I. Subsidies	2.65	3.21	4.3	10.9	8.51	5.35	6.02	5.5	398.5	220.6
II. Social Security & Welfare			3.7	13	4.1	2	7.6	4.4	22.5	29.1
III. Food Supply Programme	0.689	1.166	2	2	2.8	2.7	3.1	3.5	4.3	12.4
IV. Peoples Works Programme			0.8	0.8	0.6	0.08	0	0.02	1.9	3.3
V. Natural Calamities			0.2	0.4	0.5	0.9	19.1	5	7.4	10
VI. Low Cost Housing			0	0.01	0.42	0.31	0.3	0.3	0.6	0.6
Governance	**28.43**	**26.68**	**33**	**38.9**	**41.84**	**50.52**	**65.21**	**78.1**	**94**	**113.9**
I. Law and Order	27.23	25.65	31	36.7	39.4	47.41	59.57	73	88	104.7
II. Administration of Justice	1.2	1.03	2	2.2	2.44	3.11	5.64	5.1	6	9.2
Total	**118.27**	**123.947**	**166.1**	**220.7**	**261.3**	**316.16**	**4346**	**497.42**	**1042**	**977**
AS % of GDP	3.1	2.9	3.8	4.33	4.6	4.8	5.6	6.7	9.7	7.46

Pakistan (2009-10) and Federal Budget Documents (various years)

Though the incidence of poverty has reduced as claimed by officially provided data but the real challenge, the political structure of the country towards the poor, remained unaddressed. Another major concern was the increasing income inequality during the same period. Table 5.4 shows both Gini-Coefficient and higher to lower consumption quintiles ratio. These ratios were used to measure the income inequality. Data suggest that the income equality situation has worsened during this period.

Table 5.4: Gini Coefficient and Consumption Share by Quintiles

	PIHS 2001-02			HIES 2004-05			PSLM 2005-06			PSLM 2007-08		
	Urban	Rural	Pak	Urban	Rural	Pak	Urban	Rural	Pakistan	Urban	Rural	Pak.
GINI	0.32	0.23	0.27	0.33	0.25	0.29	0.34	0.24	0.3	0.32	0.25	0.29
Consumption share by Quintiles (%)												
Quintile 1	5.3	12.8	10.1	4.8	12.6	9.5	4.5	13.5	9.6	5	13.1	2.2
Quintile 2	8.1	16.9	13.7	7.6	17.1	13.2	8.2	16.8	13.1	9.1	16.1	13.3
Quintile 3	12.1	1	16.8	11.6	19.7	16.4	11.1	20.1	16.2	11.7	19.6	16.4
Quintile 4	19.4	22.4	21.3	18.3	23	21.4	17.8	23	20.8	19.6	22.1	21.1
Quintile 5	55.1	28.4	38	57.7	27.6	39.4	58.4	26.6	40.3	54.6	29.1	39.3
Ratio of Higher to Lower quintiles	10.4	2.22	3.76	12	2.19	4.15	13	1.97	4.2	10.9	2.2	4

Source: Economic Survey of Pakistan (2010-11)

Thus, the serious problem encountering the poor in Pakistan is the increasing economic, social and political inequality, which provides little or no opportunity to the poor to come out of the "poverty trap." It is plausible to argue that the current political power and asset ownership structure and weak and inefficient tax infrastructure unable to mobilise enough resources to fund the poverty related projects are the fundamental causes of poverty and inequality in Pakistan.

5.4 MEASUREMENTS AND TREND OF POVERTY IN PAKISTAN: A CRITICAL REVIEW

Poverty alleviation has remained a critical challenge for Pakistan. Various factors, such as income inequality, lack of resource ownership, unemployment and underemployment, inadequate social service provision and poor governance have contributed to the persistent poverty, as we presented in preceding section. This section critically evaluates the trend of poverty that has prevailed since 1960s and examines various measurement techniques and approaches used by various studies to determine poverty.

Our analysis of measurement of poverty of both monetary and non-monetary approaches, geographical location of the poor (rural or urban) and poverty trend overtimes is begun from 1960s when the first National Sample Survey (NSS) dataset was made available in 1960-61. The second NSS was conducted in 1961-62. In 1963-64 the NSS was replaced by Household Income and Expenditure Survey (HIES). And till

1971-72 the Household Budget Survey (HBS) had been conducted on a regular basis. However, the 1970s witnessed an eight years gap, and therefore the next HIES was conducted in 1979 (Gazdar et al, 1994a; 1994b). In subsequent decade only two HIES were conducted in 1984-85 and 87-88 respectively. In the following decade, nevertheless, the HIES, after getting renamed to Household Integrated Economic Survey (HIES in 1990-91) was conducted more frequently: four HIES were carried out in 1990-91, 1992-93, 1995-96 and in 1996-97. During last decade the household budget survey has been conducted in 2000-01, 2004-05, 2006-07 and as recently as in 2008-09.

The government of Pakistan does not provide an updated official poverty line regularly; almost all studies on poverty applied their own method to construct the poverty line given the officially provided micro level dataset. Therefore, each study's suggested poverty statistics may not only vary from other related studies in magnitude, geography and region but also differs in terms of trend. Given the disagreement exists among the various poverty studies, the poverty trend analysis is a very difficult task in Pakistan.

Initially majority of the research on poverty in the country was conducted with the reference to constructing a poverty line based on income or expenditure needed to meet the basic nutritional requirement normally 2550 calories intake per adult daily (Amjad and Kemal, 1997). Albeit, later on some studies have attempted to measure poverty applying basic need approach (these studies are discussed below). Gazdar et al (1994a) demonstrate that using a unique poverty line does not help in analysing poverty situation. However, Atkinson (1993) maintains that using a fixed poverty line has its merit when it is being used for political economy of public policy.

In order to make it easier to understand the trend we segregate poverty trend over the decade and present it in a sequential order. The analysis is started with the review of studies which used various HIES datasets collected in 1960s (1993-64, 19966-67, 1968-69 and 19969-70). Studies measure poverty on the bases of these data may be divided into two broader categories. First, Naseem (1973); Alauddin (1975); Mujahid (1978) use the fixed poverty line with the reference to the given level of income or expenditure. Both Naseem (1973) and Alauddin (1975) conclude that rural and urban poverty between 1963 and 1970 declined. Mujahid (1978), on the contrary, shows that poverty

during the same period has increased. He criticises the methodology used by the previous two authors.[66] The second category includes Naseem (1977); Malik (1988); Irfan and Amjad (1984) who use the same datasets and construct the poverty line based on minimum nutrition requirements of 2550[67] calories per adult person daily. Irfan and Amjad (1984) and Malik (1988) use basket of consumption equivalent to 2550 calories per adult per day and identify that poverty has increased in rural areas in Pakistan. Likewise, Naseem (1977) uses a consumption basket equivalent to 2100 calories reaches to a similar conclusion. However, Malik (1988) on the other hand suggests that poverty in urban areas has declined in Pakistan, though he agrees with preceding studies – wherein both the overall and rural poverty has increased - as indicated in table 5.5.

Table 5.5: Trends in Poverty in Pakistan

Year	Rural Areas		Urban Areas		Overall	
	percent of very poor household	percent of poor household	percent of very poor household	percent of poor household	percent of very poor household	percent of poor household
1963-64	36.79	24.69	40.88	48.89	37.69	44.05
1966-67	43.05	49.68	37.41	45.99	41.7	48.79
1969-70	44.24	50.76	34.09	42.55	41.78	48.77
1979	29.23	35.19	23.64	30.95	27.75	34.07
1985-85	24.1	29.21	19.4	25.61	22.79	28.21

Source: Malik (1988)[68]

Some disagreement exists on urban poverty trends during the Ayub 1960s government. There is a consensus that both rural as well as overall poverty increased in this period. Zaidi (1999) attributes the rising of rural poverty to the "green revolution" and land mechanisation: it might have a positive impact on rural economy in the long run but it evicted a large numbers of tenants for the short period of time.

Gazdar et al. (1994a and 1994b); Amjad and Kemal (1997); Gazdar (1999); Zaidi (1999, 2001); Pakistan (various issues); Bengali and Ahmed (2002) among others widely quoted Malik's (1988) calculated poverty statistics in their respective poverty analyses.

[66] They did not incorporate the differences in the size of household who were from identical income group; thus, considered such household as poor.

[67] The planning commission of Pakistan has endorsed 2550 calories per adult per day. Studies such as Malik (1988) used adult equivalence scales to balance the gender consideration.

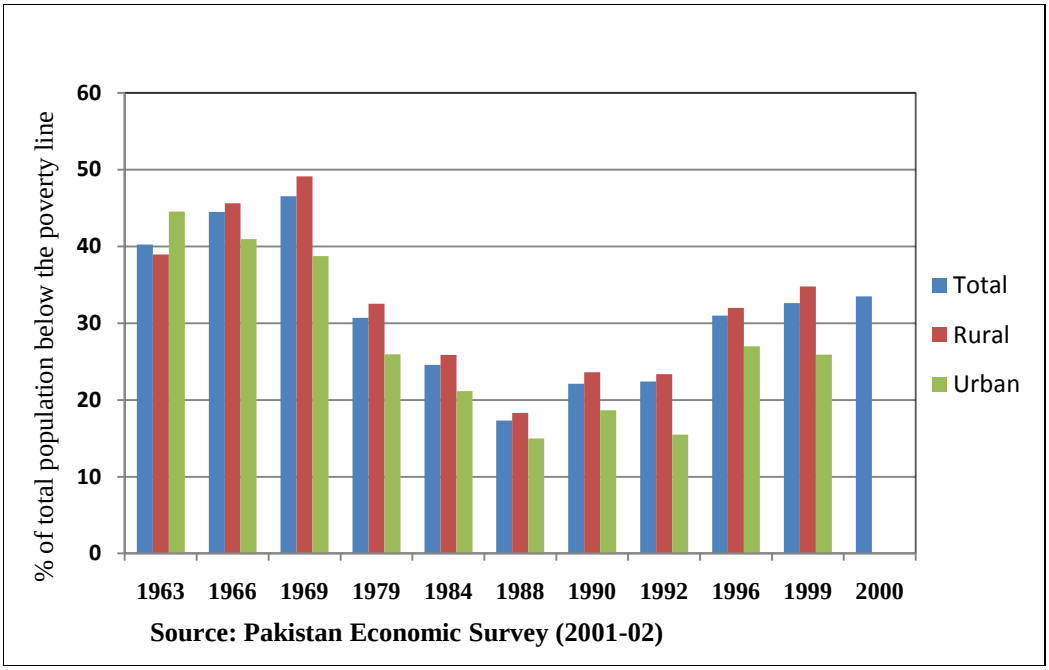
[68] The author used 1963-64, 1966-67, 1969-70, 1979 and 1984-85 HIES respectively to calculate the poverty data.

As suggested in table 5.5, urban poverty witnessed a decline during 1960s, whereas rural poverty registered an upward trend in the same period, which therefore caused the overall poverty to rise.

Between 1971 and 1979 no micro-level household survey was conducted. Therefore, it is difficult to understand the poverty trend during this period but studies that cover 1970s poverty profile almost all of them confirmed a declining trend. For example, Kruijk and Leeuwen (1985), use monthly expenditure of seven hundred rupees at 1997 prices, conclude that poverty in both urban and rural areas has declined during 1970s, as indicated in figure 5.1. Likewise Malik (1988), covering urban and rural areas, observes a declining trend of poverty during the same period. However, unlike Kruijk and Leeuwen (1985), he applies per capita expenditure requires to meet 2500 calories intake plus non-food expenditure of total population. Irfan and Amjad (1984) use 2550 calories per adult for basic analysis and also use adult equivalence scales to balance the gender consideration. They show a similar trend result as of Kruijk and Leeuwen (1985). Their study, however, is limited only to rural areas of Pakistan. Nonetheless, Ali (1995), using utility function based concept of poverty, uncovers that poverty has increased in 1970s, albeit his study is restricted only in showing the overall trend ignoring the geographical (rural and urban) poverty trends. Similarly, authors like Zaidi (1992); Ali and Tahir (1999); Zaidi (1999); Bengali and Ahmed (2002); Jamal (2005; 2006); Zaman et al. (2010) either use calories norm or monthly expenditure method demonstrate a dramatic decrease in poverty in overall as well as in rural and urban areas respectively.

Akhtar (1988) uses 1979 HIES dataset and measures the poverty and inequality based on poverty definition to bottom 10% compare to the top 10% of the population in terms of per capita expenditure. Her analysis shows that poverty in fact is a rural phenomenon and particularly is found in rural areas of Sindh and Punjab.

Figure 5.1: Trend of Headcount Ratio in Pakistan



The most prominent feature regarding poverty in 1970s is that poverty reduced alongside income inequality. As suggested in table 5.6, income inequality, represented both by Gini Coefficient and income share of below 20% of population recorded a noticeable reduction. For instance, the income share of the lowest 20% increased from 33.01% of total national income in 1970 to 37.16% in 1980: more than a 4 percentage point increment over the decade.

For 1980s' poverty estimates, studies have used HIES datasets of 1984-85, 1987-88 and finally in 1990-91. Major studies that analysed the poverty trend during this period are Ahmed and Ludlow (1989); Ercelawn (1990); Malik (1992); Zaidi (1992); Devos (1993); Malik (1994); Gazdar et al. (1994a; 1994b); Ali (1995); Shirazi (1995); Jaffri (1999); Zaidi and Gazdar (1999).

Table 5.6: Trends of Income Inequality and Poor In 1970s

Year	Income share of below 20 percent of population (%)	Gini Coefficient	Head count Poverty Ratio (%)
1970	33.01	8.04	49.13
1971	34.5	7.79	49.85
1972	34.9	7.7	47.11
1973	35.31	7.61	44.37
1974	35.7	7.53	41.63
1975	36.1	7.44	38.89
1976	36.51	7.36	36.15
1977	36.91	7.27	33.41
1978	37.3	7.19	30.68
1979	37.23	7.15	29.66
1980	37.16	7.16	28.64

Source: Zaman et al. (2010)

A unanimity exits almost among all studies on the declining poverty trend in 1980s. Ahmed and Ludlow (1989), for example, using three household budget data points (1976, 1979 and 1984-85) apply a consistent method in measuring poverty trend. Their analysis indicates that poverty has declined both in rural and urban area during early years of 1980s. The study shows that both rural and urban poverty declined from 41% and 38% in 1979 to 31% and 25% in 1984-85 respectively. Following their method, Gazdar (1999) uses 1987-88 HIES and 1990-91 PIES datasets discovers that rural headcount ratio increased to 32% in 1991from 31% in 1984-85. However, the urban poverty witnessed a marginal decline to 20%. Similarly, Gazdar et al. (1994a; 1994b) conduct a comprehensive study to examine the trend of poverty from 1984 to 1991 by applying mean consumption approach and adjust for prices with GDP deflator. They find that overall headcount poverty declined, particularly between 1984-85 and 1987-888, as shown in table 5.7, which is somewhat surprising considering other macroeconomic indicators in same period.

Moreover, extending their analysis to the provincial level, albeit covering only the rural areas of the provinces, Gazdar et al. (1994a; 1994b) also reveal a poverty reduction in all provinces. Nevertheless, the unprecedented poverty reduction in Balochistan province (from 55.4% in 1984-85 to 20.9% in 1990-91, a 24.4 percentage point reduction) raises much doubt from various quarters particularly from poverty analysts

(Rashid Amjad, 1994; Kemal, 2003 and 1994; Iftikhar Cheema, 2005; Cheema et al. 2008 among many). Amjad and Kemal (1997) believe that the drastic poverty reduction shown for Balochistan during this period is mainly because of the data selection biasness in both 1984-85 and 1990-91 survey years.

Table5.7: Percent of Population Living Below the Poverty Line Province

	1984-85	**1987-88**	**1990-91**
Punjab	50.4	42.1	38.5
Sindh	45.3	34	30.8
KPK	46.2	38.3	40.4
Balochistan	55.4	44.6	20.9

Source: Gazdar et al (1994)

Malik (1988) uses 2550 calories per adult per day by regressing total required calories on total expenditure. He shows that both overall as well as rural and urban incidence of poverty declined between 1984-85 and 1987-88. However, his study illustrates that in second part of the decade (between 1987-88 and 1990-91) both rural and urban poverty increased marginally. Similarly, Amjad and Kemal (1997) use the same method that of Malik (1988) report a reduction in the incidence of poverty in both overall and rural and urban poverty respectively till 1987-88. Having an agreement with Malik (1988), Amjad and Kemal (1997) also conclude that poverty started increasing in last years of 1980s. For example, overall poverty, increased from 17.32% in 1987-88 to 22.11% in 1990-91 (table 5.8).

Table 5.8: Poverty Trend in Pakistan during 1980s and early 1990s

(Percent of population living below the poverty line)

	1979	**1984-85**	**1987-88**	**1990-91**	**1991-92**
Overall	30.68	24.47	17.32	22.11	22.4
Rural areas	32.51	25.87	18.32	23.59	23.35
Urban areas	25.94	21.17	14.99	18.64	15.5

Source: Amjad and Kemal (1997)

Likewise, Shirazi (1995) applies both 2550 calories norm and basic needs approaches presents that poverty between 1987-88 and 1990-91 increased in overall as well as in urban and rural areas. Zaidi (1992), on the other hand, uses 1984-85 data point analyses

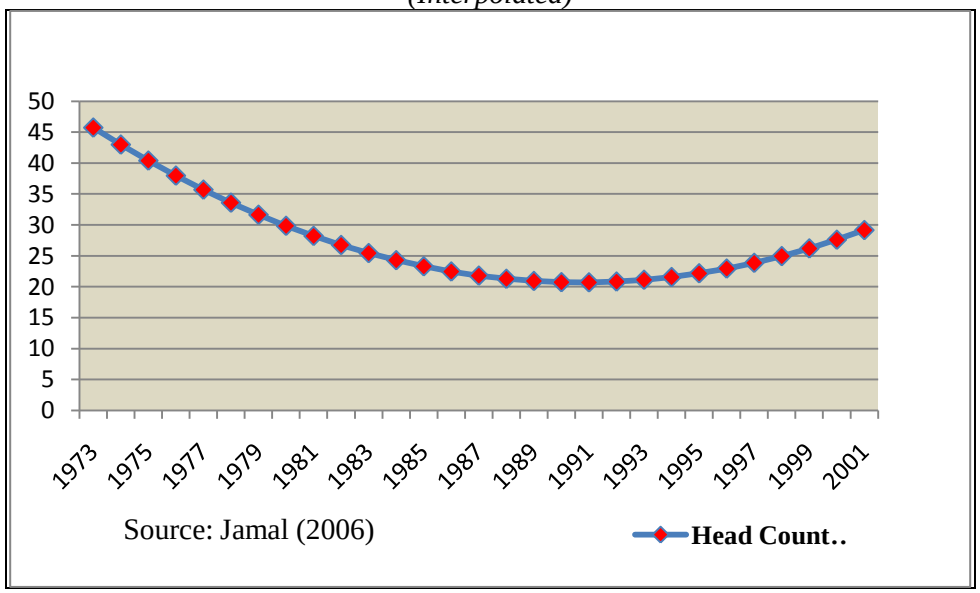
the relative poverty estimation in Pakistan with income and expenditure approaches. He demonstrates that when resource of households are measured by expenditure the headcount poverty of 39% is recorded in Pakistan - whereas the poverty figure is 43% if income based measurement approach is applied. To him the reason for this difference in poverty figure is the under-reporting of low income households in latter approach. His study also shows that the households headed by uneducated or semi-educated have a major share of poverty than the households comparatively having better education. Similarly, households extract their income from sectors such as agriculture mining and construction constitute more poverty than their counterparts in other sectors. Finally, he illustrates that among relative poverty the Punjab being the most populated, and Balochistan being the largest but least populated province among all provinces, are the richest and the poorest province respectively.

Ercelawn (1990) applies 1984-85 HIES micro dataset, measures a poverty line based on monthly expenditure that is sufficient to meet 2550 calories per adult daily. He measures and analyses the incidence of poverty at both national and provincial levels. He finds out that the overall headcount poverty in the mid of 1980s remains 20% of total households, while in rural Sindh and Punjab the poverty rate is 21% and for Balochistan and KP he reports 30% and 31% respectively. (10% poverty in KP is astonishing for many poverty specialists given the socio-economic structure of the province). However, Cheema's (1995) study uses 1984-85, 1987-88 and 1990-91 data points with the application of utility function based concept of poverty concludes an increasing trend of overall poverty during this period. Anwar (1996) on the contrary finds an increase of poverty during the same period. However, according to Jafri (1999) poverty decreased between 1987-88 and 1990-91.

Thus, overall the incidence of poverty during the 1980s consistently declined, as indicated in the figure 5.2, following the same trend of headcount poverty in preceding decade (1970s).

Figure 5.2: Incidence of Poverty Trends (1973-2001)

(Interpolated)



Most of the researches undertaken during 1990s in order to assess the nature and extent of poverty used multiple approaches: a departure from the decades old practice of income or consumption approaches of poverty line based on required calories intake. Three broad approaches were applied by the poverty literature to calculate the poverty in 1990s. First approach follows the conventional way of calculating poverty and measures income or consumption level which is required to meet the calorific requirements of basic food and non-food items. While, the second approach estimates of poverty in 1990s using basic needs approach. The third, perhaps the broader approach, is the set of those studies which draws the poverty line of 1990s on the basis of income level as well as other socio-economic and political dimensions.

Most of the studies[69]are somewhat unanimously agreed that over the course of the 1990s both overall, and urban and rural poverty have increased in Pakistan. However, some

[69] For example, (Gazdar et al., 1994; Malik, 1994; Anwar 1996, 2005 and 2006; Sayeed and Ghaus, 1996; Amjad and Kemal, 1997; Ali and Tahir, 1999; Arif, 2000; FBS, 2001; Ghaus-Pasha and Jamal, 2001; Haq and Bhatti, 2001; World Bank 2002; Anwar and Qureshi, 2003).

studies like Gazdar et al. (1994a); FBS (2001); World Bank (2002) report contrasting outcomes. For instance, World Bank (2002) documents that till 1996-97 poverty decreased both in rural and urban areas. However, between 1996 and 1999 the incidence of poverty witnessed an increasing trend. Hence, the World Bank report (2002) concludes that poverty remained marginally lower by the end of 1990s compare to the early years (34% in 1990-91 and 32.6% in 1998-99, as shown in table 5.9). The level of overall poverty suggested in the World Bank Report (2002) is largely consistent with other studies. However, large number of studies draws an opposite result of poverty during 1990s. For instance, in Anwar's (1996) and Anwar and Quereshi's (2003) works it is shown that poverty has increased by about 70% (from 17.26% to 30.9% in 200-0). Skeptics (Anwar and Qureshi, 2003; Kemal, 2003 among many) raise a serious concern over the methodology used by the World Bank. They are in the view that because of the methodological error, World Bank overestimated the poverty incidence in Pakistan in early years of 1990s that resultantly derived to report a decline in poverty in later part of the 1990s.

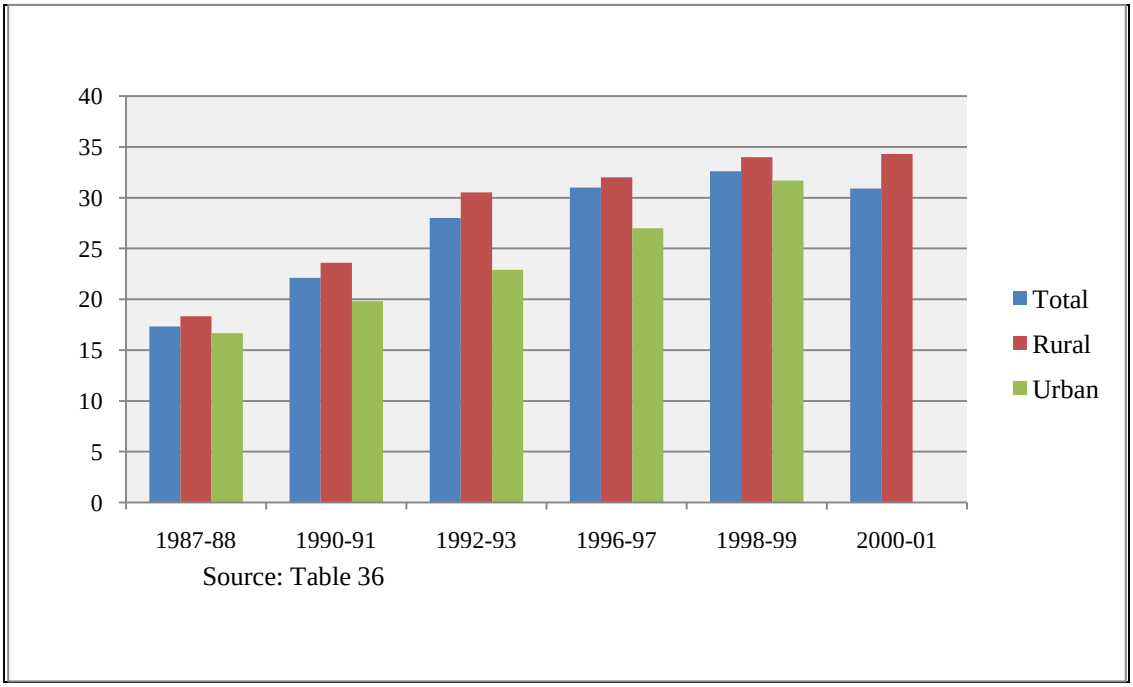
Gazdar et al. (1994b) estimate poverty for five years (1987-88 to 1992-93) by using Ahmed's (1993) method of basic needs poverty line approach. They conclude that rural poverty has declined during this period. Extending the same analysis by including 1993-94 HIES dataset, Jafri (1999) shows that from 1987-88 to 1990-91 headcount poverty witnessed a decline. During 1991-92 and 1993-94 it started increasing again. Arif et al. (2001) estimate overall poverty trend during 1993-94, 1996-97 and 1998-99 reveal that the overall poverty has gone up from 27% in 1993-94 to 35% in 1998-99, which in other words suggests that in the end of 1990s more than one third of Pakistani households were living below the poverty line. In rural areas where the incidence of poverty was more prevalent: virtually 40% of population was forced to live under the poverty line (table 5.9).

FBS (2001) suggests two poverty lines from 1992-93 to 1998-99 and presents an increasing poverty trend in both cases during this period. The first poverty line is constructed on 2550 calories norm shows of 29.9% and 36.3% of poverty respectively in 1992-93 and 1998-99. Whereas, the second poverty line of FBS (2001) with 2150

calories requirements demonstrates the incidence of poverty 23.9% in 1992-93 but increased to 32% in 1998-99. Although both the estimations of FBS suggest two different poverty estimates in terms of the incidence but both present an increasing poverty trend.

Likewise, Ali and Tahir (1999) estimation shows an increase in overall poverty from 19.18% to 27.93, rural poverty from 20.36% to 31.24%, and urban poverty from 16.65 to 20.89% between 1987-88 and 1992-93 (table 5.9).

Figure 5.3: Consistent Estimates of Poverty Trends In 1990s



Source: Table 36

Thus, after witnessing a decline during the 1970s and 1980s, as illustrated above, the poverty has returned and consistently increased in1990s as shown in figure 5.3. However, the World Bank's (2002) shows almost a consistent decline of poverty during 1990s, which is not supported by other studies reported above. In 1990s the macroeconomic indicators that have potential impact on poverty have suffered, as shown in table 5.10. For instance, economic growth with a significant implication on poverty reduction remained

Table 5.9: Trends of Poverty in Pakistan in the 1980s and 1990s

Year	Malik (1992)	Gazdar et al (1994)	Anwar (1996)	Amjad and Kemal (1997)	Ali and Tahir (1999)	Jafri (1999)	Jamal and Gaus-Pasha (2000)	Arif et al (2001)	Qureshi and Arif (2001)	FBS [(2001)(2550calories)]	FBS [(2001)(2125 calories)]	World Bank (2002)	Anwer and Qureshi (2003)	Offical poverty Line
Overall														
1987-88	13.0		13.81	17.32	19.18	29.2						30.7		
1990-91			17.26	22.1	23	26.1						34		
1992-93				22.4	28.11	26.8				26.6	22.2	26.7		24.9
1993-94					27.93	28.7		27.4		29.3	25	28.6		27.7
1996-97							31	29.6		26.3	21.8	24		24.5
1998-99								35.2	35.2	32.2	28.2	32.6	27.7	30.6
2000-01													30.9	
Rural														
1987-88				18.32	20.36	29.3						40.2		
1990-91				23.59	24.49	25.2						36.9		
1992-93				23.35	30.53	24.6				29.9	23.9	27.7		27
1993-94					31.24	25.4	32	29.9		34.7	29.7	33.4		33
1996-97								31.6		30.7	26	27.1		28.8
1998-99								39.8	39.8	36.3	32	35.9	28.8	34.7
2000-01													34.3	
Urban														
1987-88				14.99	16.65	30.3								
1990-91				18.64	19.82	26.6						30.7		
1992-93				15.5	22.91	28.3				20.7	17.7	20.8		19.8
1993-94					20.89	26.9		23.1		16.3	13.6	17.2		15.2
1996-97							27	27.4		16.1	12.4	16.9		14.8
1998-99								31.7	31.7	22.4	19.1	24.2		20.9

Source: Studies cited above

sluggish throughout the 1990s. Commodity sectors (agriculture and industry) were badly affected. Even agriculture sector witnessed a negative growth rate for some years. Inflation has increased. Workers' remittances decreased and public expenditures on social sector fallen. The bad performance of all these factors largely explains the increasing trend of poverty in 1990s.

Table5.10: Selected Indicators (Real Growth Rate and Percentage Share to GDP)

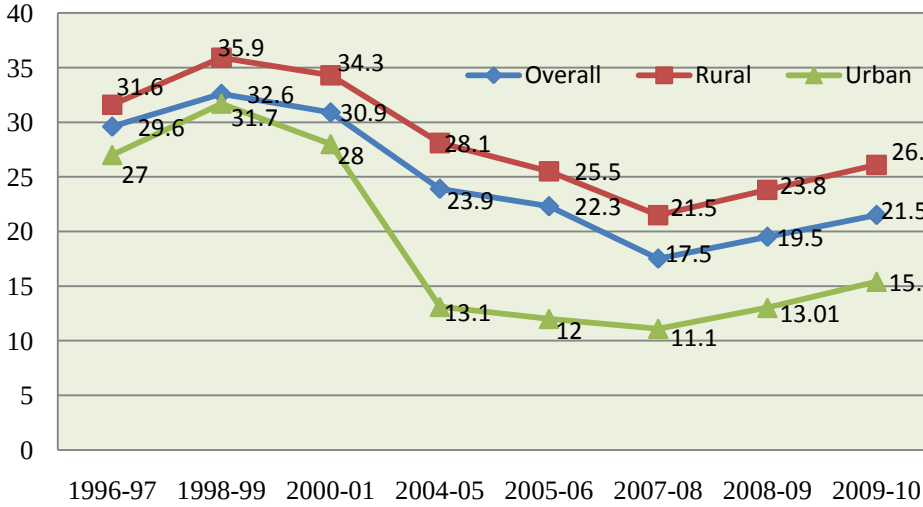
Year	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-0	00-1
CPI	6	12.7	10.6	9.8	11.3	13	10.8	11.8	7.8	5.7	3.6
GDP Growth	4.6	5.6	7.7	2.3	4.5	4.1	6.6	1.7	3.5	4.2	3.9
GDP (Per Capita)	1.8	3.7	-0.85	1.26	3.02	2.91	-1.2	0.88	1.9	1.22	0.23
Industry	6.25	8.1	4.4	4.5	2.5	3.7	-0.1	6.9	4.1	1.5	7.6
Agriculture	4.96	9.5	-5.3	5.2	6.6	11.7	0.1	4.5	2	6.1	-2.6
Health Exp (% of GDP)	0.86	0.80	0.81	0.75	0.72	0.85	0.82	0.77	0.73	0.58	0.58
Edu. Exp (% of GNP)	2.1	2.2	2.2	2.3	3.4	2.4	2.5	2.3	2.2	2.1	1.6
Unemployment rate (%)	0.7	16.3	14	9.9	9.1	14	15.2	17.1	15	15.3	15.8
Subsidies and other transfer (% of GDP)	7	6	5	3	3	2	3	2	2	2	3

Source: Pakistan (various issues) and SBP (2011) and WDI (2012)

Pakistan (2007-08) and FBS (2007-08) suggest a substantial reduction of poverty from 2000-01 to 2008-09. Figure 5.4 illustrates that poverty declined from 30.9% in 2000-01 to 17.5% in 2007-08, suggesting a 13.4 percentage reduction within seven years. The urban poverty declined from 22% to 11.1% and rural poverty reduced from 33.3% to 21.5%. The rural poverty fell significantly over the same period but the gap between rural and urban poverty remained wide. In 2007-08 rural area had almost two times more poor people than in urban area.

Nevertheless, FBS's current households' budget data suggests an upswing in the incidence of poverty since 2007-08. This recent upsurge of poverty has largely been due to the steep rise of prices of petroleum products, natural gas and electricity and edible commodities, such as flour, sugar, oil, onions, pulses, meat and rice. The overall headcount poverty increased from 17.7% to 21.5% between 2007 and 2009.

Figure 5.4: Poverty Trends In 2000s



Source: Pakistan (2005-06); ADB (2008); PBS (1996-97, 2000-012007-08, 2008-09, 2010-11); WDI (2011); and SPDC (2007; 2012)

However, the significant decline of the incidence of poverty in last decade, particularly during first five years of 2000s has been a major subject of debate in many circles. Almost 11 percentage point poverty reduction between 2000-01 and 2004-05, as claimed by Government of Pakistan, if true could resolve around one third of poverty problem in Pakistan with a very short span of time. Even fast growing countries like China and India with more than 8% average growth rate annually could hardly reduce poverty with such an unprecedented rate.

A close look at the factors largely responsible for poverty reduction shows that such claims of significant poverty reduction may be exaggerated. For instance, the composition of economic growth between 2000-01 and 2004-05 was dominated by services sector, which was not pro-poor – the services sector contributes more than 60% of the GDP (table 5.11). Similarly, the manufacturing growth largely comes from automobiles, textiles and electronics subsectors that are not pro-poor. As the table 5.11 makes it clear, the unemployment rate during the same period rose sharply from 6% in 2000-01 to 7.69% in 2005-06, which adversely affects the poor.

It is important to know that in estimating the incidence of poverty government uses two years to compare the scale of change takes place in poverty. Firstly, a base year is chosen to compare another point in time and secondly the inflation is used to deflate the prices changes so as to make the consumption pattern constant overtime. 2000-01 is used as based year. Since 2000-01 was the worst year in terms of harvest that recorded a negative agricultural growth rate compares to 2004-05 or 2007-08 with better harvest. Therefore, using 2000-01 as base year would overestimate the poverty reduction (Burki, 2006; Hasan, 2006; Hussain, 2008).

Similarly, World Bank's (2007) estimates show that the overall incidence of poverty between 2000-01 and 2005-06 has declined from 34.4% to 29.2%: a 5.2 percentage reduction, against the official claim of 12 percentage point reduction. The World Bank (2007) criticises the use of Consumer Price Index (CPI) in official poverty estimates. The CPI ignores the inflation in rural areas where the majority of the poor live. Thus, using CPI in estimating poverty understates the actual incidence[70] and fails to reflect the actual rate of increase or decrease in poverty. Similarly, Anwar (2006) applies the same methodology of the World Bank, proposes that from 2001-02 to 2004-05 poverty reduced by 5.1 percentage points. He, however, argues that despite this decline the absolute number of the poor in Pakistan has risen by 2.6 million during the same period. reduction, against the official claim of 12 percentage point reduction. The World Bank (2007) criticises the use of Consumer Price Index (CPI) in official poverty estimates. The CPI ignores the inflation in rural areas where the majority of the poor live. Thus, using CPI in estimating poverty understates the actual incidence[71] and fails to reflect the

[70] Price changes have a significant impact in determining poverty trend. The consumption pattern of low income people differ largely from their high income counterpart: they spend more of their disposable income on necessity items compare to luxuries, whereas, the rich spend a larger proportion of their income on luxuries. This therefore suggests that if the prices of necessity items increase compare to luxury ones, the poor would be more affected than the rich (Arrow, 1958). Kakwani and Son (2006) construct a pro-poor index to understand that how price changes in necessary consumption items affect the income and distribution of income. Their estimates conclude that items like food, clothing and housing have price indices greater than unity, which suggests that, keeping other things constant; increase in price level affects the poor more than non-poor.

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Table 5.10: Selected Macroeconomic Indicators

(***Values expressed in percentage)***

Year	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10
GDP Growth	2	3.1	4.7	7.5	9	5.8	6.8	3.7	1.2	4.1
Agricultural growth	-2.2	0.1	4.1	2.4	6.5	6.3	4.1	1	4	2
Manufacturing Growth rate	9.3	4.5	6.9	14	15.5	8.7	8.3	4.8	-3.7	5.2
Services Sector Growth rate	3.1	4.8	5.2	5.9	8.5	6.5	7	6	1.6	4.6
Services sector share to GDP	51.3	52.1	52.4	51.6	51.3	51.7	51.8	52.9	53.1	53.3
Share of Industry to GDP	23.8	23.7	23.6	25.5	26.3	25.9	26.3	25.8	25	25.2
Share of Agriculture to GDP	24.9	24.1	24	22.9	22.4	22.5	21.9	21.3	21.9	21.5
Unemployment rate	6	7.82	8.27	8.27	7.69	7.69	6.2	5.2	5.46	5.5
Labour force participation rate	29	28.97	29.61	29.61	30.41	30.41	32.22	32.17	32.81	32.81
Agriculture share to total employed persons	48.42	48.42	42.09	42.09	43.05	43.05	43.37	43.61	44.65	44.65
Education Expenditure as % of GNP	1.6	1.9	1.7	2.1	2.1	2.2	2.4	2.4	2.1	2
Health Expenditure as % of GNP	0.7	0.7	0.7	0.6	0.6	0.5	0.6	0.6	0.5	0.5
Development Expenditure as % of GDP	2.1	2.8	2.2	3.1	3.9	4.8	4.9	4.4	3.8	4.1

Source: Pakistan (various issues)

absolute number of the poor in Pakistan has risen by 2.6 million during the same period.

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5.5 CONCLUSION

This chapter has presented the multiple approaches to poverty. These approaches include governance and institutional constraints. The chapter also described the trend with reference to the existing literature.

The measurement and analysis of poverty in Pakistan has changed in recent years. The conventional definition and measurement of poverty is no more the focus of poverty analysis. Instead, more broad-based approaches like participatory approach are being used in studying poverty. These approaches put more emphasis on the institutionalisation and socio-political conceptutlisation of poverty. Although the poverty and inequality remained an important political issue, poverty reduction/alleviation *per se* has not been the implicit objective of various governments' macroeconomic policies. During both autocratic and democratic regimes poverty alleviation has not been the centre policy goals. For instance, in 1960s despite the high economic growth rate the poverty and inequality have increased. The 1970s was a good decade in terms of poverty reduction but it was a decade that experienced relatively slow growth rate. The poverty in 1980s has reduced. This comparative reduction in poverty was attributed primarily to the structural readjustment and deregulation of markets. However, a closer look at the political economy unfolded during the 1980s reveals that the favourable external shocks have more to do with declining trend of poverty than domestic policies. Poverty has returned in 1990s which would substantially be the results of wrong and short-sighted policies pursued during 1990s. During 2000s the poverty trend had mixed results: decreased between 2001 and 2008, and started climbing up thereafter.

In the following part, that contains four chapters, we develop a theoretical model and illustrate a framework and methodology to evaluate the empirical relationship between fiscal decentralisation and poverty as well as fiscal decentralisation with healthcare, education and agriculture.

PART III

FISCAL DECENTRALISATION AND POLITICAL ECONOMY OF POVERTY REDUCTION: THEORY AND EVIDENCE

CHAPTER 6

A LEGISLATIVE BARGAINING MODEL OF FISCAL FEDERALISM

6.1 INTRODUCTION

In this chapter we construct a legislative bargaining model and examine comparative efficiency of upper tier and lower tier systems of government for the supply of public goods under a game theory frame work. The model specifically looks at the role of federal transfers in poverty reduction under fiscal federalism. We postulate that in fiscal federalism environment where the legislative assemblies (either federal/central or provincial/state) are represented by members, representing their respective sub-national jurisdictions (provincial or local). The model shows that in bargaining game framework a legislative body would involve in such a game where the end result is the efficient allocation of public resources among the federal decision making at the bargaining equilibrium, the ratio of local/subnational expenditure to total expenditure is increasing in the federal transfer ratio. The model predicts that federal transfers help in reducing poverty. Since the federal transfers increase the fiscal decentralisation hence the model demonstrates that fiscal decentralisation and poverty are negatively correlated.

To make the argument as clear as possible, we assume that the conventional argument (see for example: Cremer and Palfrey, 1996; Alesina and Spolare, 1997; Bolton and Roland, 1997; Ellingsen, 1998; Lockwood, 2002; Oberholzer-Gee and Strumpf, 2002; Besley and Coate, 2003), fiscal federalism of spill over across the provinces/districts does not work. Moreover, the voter difference in electing the representatives from the districts or provinces for provincial and federal legislative assemblies is homogeneous; i.e. there are no voter preferences across the provinces or districts. Thus, the outcome between national and subnational government is entirely due to the bargaining game that would take place in legislative assembly.

This issue is important for several reasons. Most importantly, there is a common believe that fiscal and political federalism is a key reform for the better social service delivery, because it not increases the accountability of local representatives to their voters, but equally the local politicians due to their proximity to locality can better identify and locate the economic projects that can suffice to the public needs and interest (Bahl and Martinez-Vasquez, 2006; Hindrisk and Lockwood, 2009). Moreover, the model aims to fill a gap in the theoretical literature that we believe is quite sizeable. We understand that there is no existing work that assess the economic outcome and enhances the public spending, particularly on those sectors which potentially have a sizeable affect on the poor, in a political economy setting. So the key objective of this model is to contribute to the existing theoretical literature of fiscal and political federalism by achieving this overarching goal. Our model is a static model with one period, tow provinces of a federation and each province contains two districts. The districts are asymmetric; that is they not equal in size and population.

The scheme of the chapter is as follows. Section 6.2 sets the framework of the model with representative individuals who consume private and public goods and supply labour to the labour market. The private consumption emanates from net income (after paying federal taxes) and federal transfers that is distributed by the provincial/district governments to their respective residents. Only the federal government collects taxes and passes on a part of that to the provincial governments. Section 6.3. describes the economic equilibrium of the representative individuals given the public and private goods, federal transfers and tax rates. Section 6.4 illustrates the government budgets equilibrium, where it is shown that the federal government gathers taxes from individual wage incomes and distributes it to the provincial governments along with federal transfers. Subsequently, the provincial governments distribute these resources among districts, which are used for both development expenditures and public goods provision. Section 6.5 of this chapter provides the bargaining game framework in the provincial legislation, where it is assumed that the districts are not homogenous in size hence the larger district would initiate the project move. This shows equilibrium where the districts reach to a strategic position to get an efficient equilibrium. The last section gives a framework for decision making at federal legislature in which it is illustrated that in the

bargaining game among the legislatures reach to equilibrium the federal transfer is increasing. Since the ratio of subnational expenditures to total expenditures (fiscal decentralisation) is increasing in the federal transfers, so the poverty decreases under bargaining equilibrium.

6.2 THE FRAMEWORK

Consider an economy where there are two provinces, A and B, and two districts, i={1,2}, within each province. Individuals differ in their inherent labour productivity, denoted s_i, and distributed according to the density function $\gamma_i(s)$. An individual's wage rate, $w_i s_i$, is linear in the productivity parameter. An individual of type s_i, residing in district i of province A gets utility from private consumption, $c_i(s_i)$ and a district specific public good, G_i, and disutility from labour supply $\ell_i(s_i)$. For simplicity we assume Cobb-Douglas preferences:

$$\ln u_i(s_i) = \ln\left(c_i(s_i)\right) + \ln\left(1 - \ell_i(s_i)\right) + \ln\left(G_i\right) \tag{6.1}$$

We denote the B district with ~, i.e. the utility of a type-s individual in district i of province B is:

$$\ln \tilde{u}_i(\tilde{s}_i) = \ln\left(\tilde{c}_i(\tilde{s}_i)\right) + \ln\left(1 - \tilde{\ell}_i(\tilde{s}_i)\right) + \ln\left(\tilde{G}_i\right) \tag{6.1'}$$

An individual of type s_i, in district i of province A receives after-tax wage income, a federal resource transfer, b, which is used for private consumption:

$$c_i(s_i) = (1-\tau) w_i s_i \ell_i(s_i) + b \tag{6.2}$$

Where τ is the federal income-tax rate. Consequently, in province B:

$$\tilde{c}_i(\tilde{s}_i) = (1-\tau) \tilde{w}_i \tilde{s}_i \ell_i(\tilde{s}_i) + b \tag{6.2'}$$

We will suppress the ~ when there is no ambiguity, i.e. we do the derivations for province A, and can always obtain the corresponding quantities for province B by adding ~.

We assume the district specific wage rate is linear in that district's development expenditure, D_i, and that the 'base wage', w, is the same across districts, i.e.

$$w_i = wD_i \tag{6.3}$$

$$\tilde{w}_i = w\tilde{D}_i \tag{6.3'}$$

6.3 ECONOMIC EQUILIBRIUM

Maximising (6.1) s. t. (6.2) gives the labour supply function and the corresponding indirect utility:

$$\ell_i(s) = \frac{1}{2} - \frac{\theta}{2wsD_i} \tag{6.4}$$

$$U(\tau, ws, \theta, D_i, G_i) \equiv \max_{c_i(s),\ell_i(s)} U_i(s) = ((1-\tau)ws)\left(D_i + \frac{\theta}{ws}\right)^2 \frac{G_i}{D_i} 2^{-2} \tag{6.5}$$

where

$$\theta \equiv \frac{b}{1-\tau} \tag{6.6}$$

6.4 GOVERNMENT BUDGETS

Each province is given a budget, R and $\tilde{R}$, by the federal government to use on development expenditure and the public good in each of the two districts:

$$R = D_1 + D_2 + G_1 + G_2 \tag{6.7}$$

$$\tilde{R} = \tilde{D}_1 + \tilde{D}_2 + \tilde{G}_1 + \tilde{G}_2 \tag{6.7'}$$

The federal government collects tax revenue from wage income and distributes it to provinces as well as providing the federal transfers:

$$R + \tilde{R} + Nb + \tilde{N}b = \tau\left(Y_1 + Y_2 + \tilde{Y}_1 + \tilde{Y}_2\right) \tag{6.8}$$

where

$$Y_i = \int_s wD_i s\ell_i(s)\gamma_i(s)ds \tag{6.9}$$

etc.

6.5 THE PROVINCIAL LEGISLATIVE BARGAINING GAME

We assume a simple alternating offer bargaining game, as in Marsiliani and Renström (2007). Take province A, with two elected representatives (type s_1^* and s_2^*). If district 1 is the larger district, we assume district 1 makes the first offer. District 2 can accept or reject. If district 2 rejects, then one representative is picked at random to make the final offer (the game could be extended to several rounds without altering the qualitative properties). In the last round if district *i* is picked to make the final offer, it will maximise its own utility subject to (6.7), implying setting D_j=G_j=0. Maximising (6.5) subject to (6.7) gives the optimal level of development expenditure and of the public good when all the budget is used in district *i*, and the resulting indirect utility:

$$D_i = R\frac{1+m_i(R)}{4} \tag{6.10}$$

$$G_i = R\frac{3-m_i(R)}{4} \tag{6.11}$$

$$V\left(\tau, ws_i^*, \theta, R\right) \equiv \max_{D_i, G_i} U_i(s_i^*) = R^2\left(3-m_i(R)\right)^3\left(1+m_i(R)\right)\left((1-\tau)ws_i^*\right)16^{-2} \tag{6.12}$$

where

$$m_i(R) \equiv \sqrt{1-8\frac{\theta}{ws_i^* R}} \tag{6.13}$$

If district 2 is not chosen in the last round, then since G_2=0, it follows V_2=0. If district 2 is chosen in the last round, utility is given by (6.13). Denote the probability that district 1 is chosen with *p*, then expected utility of district 2 to enter the last round is

$$E[V_2(R)] = (1-p)R^2\left(3-m_2(R)\right)^3\left(1+m_2(R)\right)\left((1-\tau)ws_2^*\right)16^{-2} \tag{6.14}$$

Thus, district 2 accepts any proposal that satisfies

$$\left((1-\tau)ws_2^*\right)\left(D_2+\frac{\theta}{ws}\right)^2\frac{G_2}{D_2}2^{-2}\geq(1-p)R^2\left(3-m_2(R)\right)^3(1+m_2(R))\left((1-\tau)ws_2^*\right)16^{-2} \tag{6.15}$$

When district 1 makes the first offer it maximises own utility subject to (6.15) and subject to (6.7).

Notice that this problem can be written as:

$$\max_{D_1,D_2,R_2}\left((1-\tau)ws_1^*\right)\left(D_1+\frac{\theta}{ws_1^*}\right)^2\frac{R-R_2-D_1}{D_1}2^{-2} \tag{6.16}$$

Subject to

$$\left((1-\tau)ws_2^*\right)\left(D_2+\frac{\theta}{ws_2^*}\right)^2\frac{R_2-D_2}{D_2}2^{-2}\geq(1-p)R^2\left(3-m_2(R)\right)^3(1+m_2(R))\left((1-\tau)ws_2^*\right)16^{-2} \tag{6.17}$$

The first-order conditions imply that (6.9), (6.10), and (6.11) hold for the respective district evaluated at R_1 and R_2 respectively. R_2 is chosen at the level where (6.17) holds with equality. That is:

$$D_i=R_i\frac{1+m_i(R_i)}{4} \tag{6.18}$$

$$G_i=R_i\frac{3-m_i(R_i)}{4} \tag{6.19}$$

$$V\left(\tau,ws_i^*,\theta,R_i\right)=R_i{}^2\left(3-m_i(R_i)\right)^3(1+m_2(R_i))\left((1-\tau)ws_i^*\right)16^{-2} \tag{6.20}$$

for i=1,2 and

$$R_2{}^2\left(3-m_2(R_2)\right)^3(1+m_2(R_2))=(1-p)R^2\left(3-m_2(R)\right)^3(1+m_2(R)) \tag{6.21}$$

Equations (6.18)-(6.21) completely characterise the bargaining equilibrium as a function of the provincial budget, R, and the federal tax rate, τ, and the benefit rate, θ. The same equations are obtained for province B, using the ~ notation.

6.6 FEDERAL DECISION MAKING

We shall characterise the situation when one district within one province dominates at federal level. That is the situation where the finance minister comes from one of the provinces. The finance minister decides the allocation to the provinces, R and $\tilde{R}$, taking into account the bargaining game at the provincial level, so as to maximise own utility. At first, it could look as if the finance minister would set R for the other province to zero. This is not the case, as then production would stop, and no taxes could be collected from that province. Instead it is optimal to maximise net tax revenue from the other province. Suppose the finance minister comes from province A, then $\tilde{R}$ is chosen so as to:

$$\max_{\tilde{R}} \tau\left(\tilde{Y}_1 + \tilde{Y}_2\right) - \tilde{N}b - \tilde{R} \tag{6.22}$$

Subject to (6.4), (6.9), (6.18), (6.21).

The first-order condition to (6.22) gives $\tilde{R}$ as a function of τ, θ, w, etc.

$$\tilde{R} = \tilde{R}(\tau, \theta, w) \tag{6.23}$$

Differentiating (6.23), and evaluating in a symmetric equilibrium (where the two districts within a province are equal), we obtain

$$\frac{\partial \tilde{R}}{\partial \theta} = \frac{\tilde{R}}{\theta} \frac{1}{\left(1-\phi_{\tilde{R}}\right)^2 + \phi_{\tilde{R}}{}^2} \tag{6.24}$$

Notice that by (6.6), b=(1-τ)θ, then

$$\frac{\partial}{\partial b}\left(\frac{\tilde{R}}{\tilde{R}+b}\right) = \frac{b}{(\tilde{R}+b)^2}\frac{\partial \tilde{R}}{\partial b} - \frac{\tilde{R}}{(\tilde{R}+b)^2} = \frac{\theta}{(\tilde{R}+b)^2}\left(\frac{\partial \tilde{R}}{\partial \theta} - \frac{\tilde{R}}{\theta}\right) = \frac{\tilde{R}}{(\tilde{R}+b)^2}\frac{2\phi_{\tilde{R}}\left(1-\phi_{\tilde{R}}\right)}{\left(1-\phi_{\tilde{R}}\right)^2 + \phi_{\tilde{R}}{}^2} > 0 \tag{6.25}$$

Where the second equality follows from (6.6), i.e. from b= (1-τ)θ, and the last equality from (6.24). Then we have;

Proposition: *In the bargaining equilibrium the ratio of local expenditure to total expenditure is increasing in the federal transfer rate.*

Proposition implies that if the federal transfer rate, b, is larger, then the decentralisation measure is greater. Since a larger federal transfer rate alleviates poverty, we would expect poverty and expenditure decentralisation to be negatively related.

CHAPTER 7

EMPIRICAL ANALYSES

7.1 INTRODUCTION

The exiting literature, reviewed in chapters 2, 4 and 5, shows that the examination of the relationship between fiscal decentralisation and poverty reduction is still in its infancy in general and is very limited in case of Pakistan in particular. The literature on fiscal decentralisation and poverty is quite extensive. The two topics, however, have been discussed and analysed at a considerable length but separately. How do they interact and the impacts of one on another have not received a systematic empirical treatment. The empirical part of this thesis is aimed to fill this gap in related literature.

This chapter lays down the methodology, describes variables and data for the following two empirical chapters, where we explore the empirical relationship between fiscal decentralisation and poverty. In addition, it also develops the framework for empirical analysis to evaluate the effects of fiscal decentralisation on poverty reduction in Pakistan. We reveal the potential channels of association and interaction, the barriers or possible hindrance that may jeopardise the organic impact of fiscal decentralisation on poverty reduction strategies.

The chapter begins by commencing with the conceptualisation of the main dependent variable – poverty – and explains its data sources. The core independent variable, fiscal decentralisation, and its data are presented in the following section. It proceeds by describing other controlling variables identified in the relevant literature as potential determinants of poverty. In the following, we describe the methodology for regression analyses and develop the testable hypotheses. In addition to this the chapter also discusses the econometric issues that we encounter while conducing time series and panel regression analyses respectively.

7.1.1 INDEPENDENT VARIABLE

Following the empirical literature (Ravallion, 1992; Ravallion and Chen, 1997; Deaton, 2001), we use FST[72] poverty indicators of headcount poverty, poverty gap and severity of poverty as independent variables in our empirical analysis. As we noted earlier, for some literature[73] poverty cannot be defined only by income or consumption deprivation of individuals or households. Instead, other socio-economic dimensions like education, health, political freedom and security should also be taken into account. Furthermore, the same literature maintains that income or consumption poverty is not perfectly correlated with other dimensions of poverty mentioned above. Therefore, it may not accurately estimate all dimensions of poverty. Even though the literature understands and agrees with the limitations of monetary definition of poverty, having the complexities associated with the definition of other approaches to poverty and data availability, it overwhelmingly focuses on the monetary measurement and uses it in its analyses. Following the general trend, most of the studies conducted on poverty in Pakistan use FST measurement technique, which we discussed in great length in chapter 5.

To broaden the scope of the study, we follow Braum and Grote (2002) and Lindamen and Thurmaier (2002) and use the UNDP's constructed HDI as an indicator of poverty. Since the HDI index contains important dimensions (healthcare, education and per capita income) that have significant impact on poverty, therefore, using HDI to capture the availability and quality of public services to the poor seems logical and suffices to the empirical need. The HDI is inversely related to the poverty: an increase in index indicates a reduction in poverty. Furthermore, the index contains education and health dimensions which have a particular relevance to this study. Therefore, it provides a good representation of other variables that are used as good proxies of poverty. The index is free from using any arbitrary poverty line thus is not confined to the poor only. Instead, it presents the level of socio-economic development that is important in improving the living standard of the entire community. Considering that the fiscal decentralisation may affect poverty through

[72] The formulation of FST index is calculated in chapter II
[73] This includes Deaton (2001); Ravillion (2001); Srinivasan (2001)

various channels, the use of the HDI in our analysis may be justified that helps in assessing the effectiveness of fiscal decentralisation on poverty reduction outcomes.

7.1.2 DATA STRUCTURE FOR DEPENDENT VARIABLE

As suggested in chapter 5, officially calculated and updated data for poverty are available neither at national nor at provincial levels covering the sample period (1975-2009). Many authors calculated poverty trends in Pakistan using the household budget dataset provided by the FBS. Poverty literature of Pakistan although gives us a general trend of poverty over the decades on which majority of studies are agreed with but none of them provides a coherent data series for poverty that can cover our sample period. Based on household budget dataset for various years and other relevant studies on poverty, the SPDC calculated poverty statistics of Pakistan since 1973, which has been used for this study. Alongside with FST indices a part of the HDI[74] data are also come from the SPDC.[75] Table 7.1 presents variables used to proxy the poverty and their data sources.

Table 7.1: Dependent Variables and their Data Sources

Independent Variables	Data sources
Overall headcount poverty	Table 3.9 and SPDC
Headcount Rural poverty	Table 3.9 and SPDC
Urban headcount poverty	Table 3.9 and SPDC
Overall poverty gap	Table 3.9 and SPDC
Overall severity of poverty	Table 3.9 and SPDC
Human Development Index	UNDP and SPDC

It is worth noting that, the poverty data that are used in this thesis are from secondary sources, particularly from social Policy and Development Centre (SPDC), an independent research centre, and from government source [Federal Bureau of Statistics (FBS) and Planning Commission]. Moreover, as stated earlier, the government does not measure and update poverty data regularly. Poverty has been a thoroughly researched and discussed subject in Pakistan, but due to the unavailability of regular and updated data, the majority of studies measured poverty

[74] Since the United Nations Development Programme provides the HDI data on 1980 and afterward for Pakistan, we need to use the SPDC HDI prior to that.
[75] Poverty data are reported in appendix B.

by using micro-survey data collected and made available by the FBS. Therefore, it is obvious that there is not total agreement upon the incidence of poverty in the country, albeit all studies more or less unanimously agreed on the trends of poverty as was shown in chapter 5.

Even the reliability of the officially provided data has also been a question of debate. International organisations such as World Bank and Asian Development Bank – the former also measured poverty for some year (see table 5.9) – raised their concerns on the consistency of poverty figures to the actual poverty in Pakistan. Nonetheless, the poverty data measured by the SPDC is considered to be more consistent hence may be accepted with the certain degree of confidence.

7.2 CORE INDEPENDENT VARIABLE

Fiscal decentralisation is our main independent variable of interest. Due to its multidimensional approach the measurement of fiscal decentralisation appears to be challenging and complex (Song, 2013). Therefore, the public finance literature has not been successful in reaching to a collectively agreed definition and measurement for it. A country may exercise a greater subnational autonomy in public expenditures or revenue collections, yet the absence of democratically elected subnational governments makes the latter accountable to central authority rather than to the local people. Fiscal decentralisation processes may not be meaningful without taking into account the magnitude of political and administrative decentralisation, which jointly may reflect the actual autonomy of the sub-national governments. So, it is hard to come up with a comprehensive measurement that would be used as the best indicator of fiscal decentralisation.

Even though the conventional definition of fiscal decentralisation as the share of sub-national governments' expenditure (revenue) out of the total national expenditure (revenue) may fail to reflect the actual fiscal autonomy of sub-national governments[76] and we consider the limitations mentioned in the literature.[77] Under the data limitations – as encountered by other studies on fiscal decentralisation – we

[76] Prude' home (1995) and Ebel and Yilmaz (2002) provide a rigorous discussion on this issue.
[77] Prominent examples being the work of Davoodi and Zou (1998); Huther and shah (1998); Ebel and Yilmaz (2002); Martinez-Vazquer and McNab (2002). Bird and Francois (1997) argue that for in order to capture the multidimensionality of fiscal decentralisation so as to evaluate its impact on poverty reduction, a broad based quantification of decentralisation is desirable.

are unable to provide a better alternative. Thus, following the existing studies we use the standard, though imperfect (as stated by Oates, 1972), measure of decentralisation.[78]

We use the ratio of sub-national governments (provincial governments) expenditures and revenues to total national expenditures and revenues alternatively as our principal explanatory variables. Yet relying entirely on these measures to reflect the level and degree of fiscal decentralisation may be misleading.[79]As already mentioned the federal government undertakes a sizable part of provincial governments' expenditures and finances them through grant-in-aids or special grants. In addition, debt payments, particularly the foreign debts, are the responsibility of federal government.

In first adjustment the debt payment is excluded from the total national expenditure while calculating the ratio of sub-national governments' expenditures out of total expenditures. The provincial governments receive massive amounts from the federal governments in terms of grants-in-aid and use it to meet its expenses. Since it is not the part of the provincial governments' own generated revenues, to adjust for this we exclude grants-in-aid from the provincial governments' revenues while calculating the ratio of latter to the total national revenues. Given this, the variables we use to reflect the degree of fiscal decentralisation in Pakistan in our analysis are as follows:

1. The ratio of provincial governments' expenditures to total national (federal + provincial governments) expenditures.

$$Fiscal\ decentralisation = \frac{Provincial\ Governments' Expenditures}{Total\ National\ Expenditures}$$

Or

$$FD_E = \frac{\sum_{i=1}^{4} E_i^p}{TN_E}$$

[78]Whereas, Government Finance Statistics (GFS) of International Monetary Fund provides data on intergovernmental resource transfers. It does not report the nature of transfers: whether its conditional or other grants, loans, block etc. Despite this limitation, the GFS dataset virtually excludes many developing countries including Pakistan in one hand and on the other hand the government of Pakistan provides only sketchy and restricted information regarding intergovernmental fiscal transfers. As a result of the unavailability of essential primary data that is required to quantify fiscal decentralisation led us to use the limited available data in best possible way.

[79] For more discussion refer to Philips and Noller (1997)

Where, FD_E is the expenditure fiscal decentralisation; P_E is the provincial governments' expenditures and TN_E is the total national expenditures.

2. The ratio of provincial governments' revenues to total national (federal + provincial governments) revenues.

$$Fiscal\ decentralisation = \frac{Provincial\ Governments' Revenues}{Total\ National\ Revenues}$$

Or

$$FD_R = \frac{\sum_{i=1}^{4} R_i^p}{TN_R}$$

Where R is the revenue.

3. The ratio of provincial governments' expenditures to total national (federal + provincial governments) expenditures minus debt (re)payments.

.

$$Fiscal\ Decen = \frac{Provincial\ Governments' Expenditures}{Total\ National\ Expenditures - debt\ payments}$$

Or

$$FDA_E = \frac{\sum_{i=1}^{4} E_i^p}{TN_E - DP}$$

4. The ratio of provincial governments' revenues minus grants-in-aids to total national (federal + provincial governments) revenues.

$$Fiscal\ Decen = \frac{Provincial\ Governments'\ Revenues - (grants - in - aid)}{Total\ National\ Revenues}$$

Or

$$FDA_R = \frac{\sum_{i=1}^{4} E_i^p - GIA}{TN_R}$$

7.2.1 DATA STRUCTURE FOR INDEPENDENT VARIABLE

For any statistical analysis, transparent, reliable and standardised data are the most important and fundamental prerequisite. Nevertheless, for a time series analysis the availability of accurate and uninterrupted data for an extended time period is very often challenging even for countries with relatively developed data structure, let alone developing countries like Pakistan where data constraint is felt in every field.

Therefore, collecting and processing a reliable set of data so as to calculate fiscal decentralisation in Pakistan has been a challenging and daunting task for us. It is worth highlighting that in Pakistan accessing qualitative and factual data to measure fiscal decentralisation is quite a demanding and laborious job. The data gathering took almost a year required personal visits to various government and non-government organisations/departments/institutions in different cities of Pakistan and requests the concerned officials for relevant data. Despite difficulties the gathered data are free from any discrepancy. Therefore, calculated dataset for fiscal decentralisation can also be used for future research.

The FBS - the central agency for collecting, publishing and providing primary/raw (upon request) data - does not however supply any information related to fiscal decentralisation. Thus, for the measurement of decentralisation along with many other variables, it was necessary to search and identify a wide range of statistical publications from various organizations and government departments for data and other relevant information. Data that have been used to calculate fiscal decentralisation and fiscal autonomy came from various sources that are reported in table 7.2. As majority of data are not available in soft form, to convert it into usable shape we manually collected, integrated and finally constructed a dataset for fiscal decentralisation. For measuring and capturing the various dimensions of fiscal decentralisation we use the afore-mentioned formulations to calculate expenditure as well as revenue decentralisation. For the former we use the total expenditure (current + development expenditures) of both federal and provincial governments; which is measured in terms of ratios that scale from zero to one. Higher scale shows more expenditure decentralization.

As noted earlier the expenditure decentralisation is reflected by two variables: first, the ratio of total provincial expenditures to consolidated national expenditures; whereas in second the debt payments are subtracted from the consolidated expenditure while calculating for expenditure decentralisation ratio. The reason for selecting total expenditures instead of current or development expenditure alone is

Table 7.2: Variables Used To Calculate Fiscal Decentralisation and Their Data Sources

Variables	Data Sources
Federal Government Expenditures	Pakistan Statistical Year Book (various issues), Federal Bureau of Statistics Government of Pakistan; Economic Survey of Pakistan (various issues) Ministry of Finance Government of Pakistan.
Provincial Government Expenditures	Pakistan Statistical Year Book (various issues), Federal Bureau of Statistics Government of Pakistan; Budget Documents (various issues), Finance Divisions and Planning and Development Departments of the governments of Sindh, Punjab, KP and Balochistan.
Federal Government Revenues	Pakistan Statistical Year Book (various issues), Federal Bureau of Statistics Government of Pakistan; Economic Survey of Pakistan (various issues) Ministry of Finance Government of Pakistan.
Provincial Government Revenues	Pakistan Statistical Year Book (various issues), Federal Bureau of Statistics Government of Pakistan; Budget Documents (various issues), Finance Divisions and Planning and Development Departments of the governments of Sindh, Punjab, KP and Balochistan.
Debt Payments	Pakistan Statistical Year Book (various issues), Federal Bureau of Statistics Government of Pakistan; Economic Survey of Pakistan (various issues) Ministry of Finance Government of Pakistan.
Grants-in-Aids	Pakistan Statistical Year Book (various issues), Federal Bureau of Statistics Government of Pakistan; Budget Documents (various issues), Finance Divisions and Planning and Development Departments of the governments of Sindh, Punjab, KP and Balochistan.
GDP Deflator/Consumer Price Index	Hand Book of Statistics of Pakistan Economy, SBP (2010).

that in Pakistan current expenditures dominate both federal and provincial governments' total expenditures. Current expenditures largely meet wages, salaries and other maintenance costs. Development expenditures typically have been the second priority at both federal and provincial governments' level: after meeting current expenditures funds may be allocated to development projects. Thus, incorporating both while measuring total expenditure decentralisation may enable us to assess the sub-national governments' autonomy in allocating resources to development projects along with meeting the current obligations. It is worth mentioning that it is the development expenditures that potentially would affect the living standard of the people particularly the poor and disadvantaged.

Our second measure of fiscal decentralisation is the revenue decentralisation. It helps in assessing the revenue autonomy of sub-national governments by

incorporating the tax and non-tax revenues designed and collected by the provincial governments out of total consolidated revenues. Like the expenditure decentralisation, the revenue decentralisation is also measured in ratio that scales from zero to one. Higher scale indicates greater fiscal autonomy and self-dependence of the provincial governments. This measurement quantifies the revenue autonomy of provincial governments, and indentifies which revenues are collected by the latter. However, it fails to reflect the provincial governments' autonomy in designing the tax-base and imposing the tax-rate. Similarly, the same measure does not quantify the fiscal capacity of the provincial governments. Instead, it only shows how much tax and non-tax revenues the provinces generate out of the total revenues. Therefore, it is pertinent to state that through this measure the potential financial capacity of provincial governments to maintain its self-sustenance may not be assessed. Nevertheless, in the absence of any better measurement technique for revenue decentralisation due to the complexities enumerated above, this measurement is used as the "second best" in fiscal decentralisation literature. Following the same literature we also apply second best available techniques in our analysis.[80]

7.3 OTHER EXPLANATORY VARIABLES AND THEIR DATA DESCRIPTION

Alongside fiscal decentralisation, this study also includes a range of other explanatory variables in order to control other social and economic factors that potentially affect poverty. We follow the empirical literature, discussed in chapter 2, and include the control variables our empirical analysis these variables that are presented in table 7.3 with their data sources and expected signs vis-à-vis poverty. An annual-based time series and pooled dataset for the variables are used in this analysis. Annual data are used because majority of the variables included are related with public finance of central or provincial governments, which are released annually.

[80] It is worth noting that for effective fiscal decentralisation the subnational governments must be given maximum revenue generating autonomy in order to meet its expenditures. Pakistan exercises more expenditure decentralisation compare with revenue decentralisation. Thus, in order to fill the revenue-expenditure gap of provincial governments' finances, the latter have to rely heavily on intergovernmental fiscal transfers.

Table 7.3: Control Variables

Measurements, Definitions Data Sources and Expected Sign vis-à-vis Poverty		
Variables	**Measurement/Definitions**	Expected sign
Trade Openness	The ratio of export plus import to total GDP *Data sources: Hand Book of Pakistan Economy, State Bank of Pakistan (2010)*	–
Size of the Government	Total public sector expenditure as percent of GDP *Data source: Hand Book of Pakistan Economy, State Bank of Pakistan (2010)*	–
Political rights/ Political freedom/ Rule of Law Index	The index 0 scales from 7 to 1. Lesser (near to one) the scale suggests a greater level of political freedom in terms of free and fair election, political opinion making and freedom of joining political parties/groups of their choice, voice and accountability, and justice. *Data sources: Freedom House, Freedom in the World (2003 &2010); Election Commission of Pakistan; and Pakistan Institute of Legislative Development and Transparency (PILDAT) (2011).*	–
Gini Coefficient	Gini index measures the extent to which the distribution of income among individuals or households within the economy deviates from a perfectly equal distribution. Gini Index lies between 0 and 1. Zero represents perfect equality, while 1 implies perfect inequality. *Data source: SPDC (2009) and Economic Survey of Pakistan (various issues).*	+
Corruption Index	An index on a scale of 0 and 6, which measures the perception of corruption. Corruption here is defined as use or exercise of public office to gain private gain. A higher score indicates lower level of corruption and vice versa. *Data source: Transparency International and the International Group Risk Guide (2011) and Political Risk Group (2010).*	+
GDP Per Capita (Overall as well as Provincial level)	Per capita income is gross domestic product divided by midyear population, at Constant Factor Cost of 1980-81. *Data source: Bangali and Sadaqat (2000); Hand Book of Pakistan Economy, SBP (2010) Federal & Provincial Budget Documents (various issues).*	-
Literacy Rate	Literacy rate is the ratio of those (use 10 years and above) to total population who can read newspaper and write a letter in any language. *Data source: WDI, World Bank (2011) and Economic Survey of Pakistan (various issues)*	-
Pro-poor Expenditure	An index of public expenditures on social services (health, education, sanitation and welfare schemes) likely to affect poor more. *Data source: Federal Bureau of Statistics (various Issue)*	-
Life Expectancy at Birth	The number of years a new born baby would before its death. *Data source: WDI, World Bank (2011)*	+
Crude Death Rate	Total number of people of society who die out of one thousand per year *Data source: WDI, World Bank (2011)*	+
Infant Mortality Rate	Total infants who die before reaching to the age of five out of thousand per year *Data source: WDI, World Bank (2011)*	+
Population	Midyear population (in Million people) *Data source: Hand Book of Pakistan Economy, State Bank of Pakistan (2010) and Economic Survey of Pakistan (various Issues)*	+

Subsidies	The ratio of total subsidies given by public sector to GDP. *Data source: Federal Bureau of Statistics(various Issue)*	–
Population Per Bed	Hospitals beds available per 100 people in public hospitals and dispensaries *Data source: Hand Book of Pakistan Economy, SBP (2010)*	–
Fiscal Administration	Total expenditure in million rupees devoted to fiscal administration by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Justice and Police	Total expenditure in million rupees devoted to justice and police by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Public Health Services	Total investment in million rupees to public health services by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Education	Total investment in million rupees to education by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Health	Total investment in million rupees to health by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Social Security and Welfare	Total investment in million rupees to social security and welfare by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Agriculture	Total investment in million rupees to agriculture by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Irrigation	Total investment in million rupees to irrigation by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Rural Development	Total investment in million rupees to rural development by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Transport and Communication	Total investment in million rupees to transport and comm. by provincial governments. *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).* *Data source: Federal Bureau of Statistics (various Issues) and provincial governments' budget documents (various issues).*	–
Agriculture Machinery	Agricultural machinery, tractors per 100 sq. km of arable land *Data source: WDI, World Bank (2011) and Pakistan (various issues)*	_
Agricultural Value added	Agriculture value added in constant price of 1980 (in million rupees) *Data source: Bangali and Sadaqat (2000), Federal Bureau of Statistics (various Issue); Provincial Budget Documents (various issues).*	_
Grants	Annual grants in million rupees given by federal government to provincial governments. *Data source: Federal Bureau of Statistics (various Issues).*	_

Own Revenue	Percentage share of provincial government to total revenue collected *Data source: Federal Bureau of Statistics (various Issues), federal budget documents (various issues).provincial governments' budget documents (various issues)*	–

It needs to be emphasised that corruption is one the most prominent features of Pakistan's state and society. Although – as mention in above table – Transparency International, Country Risk Guide and Pakistan Institute of Legislative Development and Transparency provide data on corruption in Pakistan, however, since these data are on countrywide and do not provide disaggregated information, these data may not reflect the corruption at provincial level. Having this caveat these data need to be used and analysed with caution. For example, in province like Balochistan it is perceived that the corruption is very high, but it does not reflect in national corruption figures.

7.4 HYPOTHESIS DEVELOPMENT

In conventional literature of public finance, as we saw in chapter 2, concepts of fiscal decentralisation and poverty are treated as two distinct approaches. Poverty reduction is considered mainly as redistributive agenda that may best be addressed by the central government on the ground of externality and free movement of citizens (see more in Feldstein, 1975; Bird and Francois, 1998; Smoke, 2001). Fiscal decentralisation, on the other hand, is viewed purely on efficiency ground. Therefore, fiscal decentralisation may not be used as a policy reform strategy for poverty reduction (see more in Musgrave, 1959; Oates, 1972; Yilmaz and Ebel, 2002). Nevertheless, recent trends in poverty literature consider as purely a local phenomenon. The bottom-up approach to tacking poverty is supported by the World Bank (2000); ADB (2002); Crook (2002); Shah (2005) among others, who argue that poverty alleviation programmes need to evolve through the involvement of local people. Fiscal decentralisation, in this regard, is adopted as major policy reform by many developing countries and international organisations for efficient public service delivery and implementation of poverty reduction programmes. As stated earlier, the indirect and intricate relationship of fiscal decentralisation and poverty may make the process complex. We argue that fiscal decentralisation as major policy tool can be adapted to impact poverty through better social services delivery as well as empowering subnational governments to identify and implement pro-poor

programmes. This argument is justified on the ground that sub-national governments have the knowledge and understanding about the local people's needs and priorities therefore design and implement poverty alleviation programmes accordingly, which the remote central government often fails to possess. In addition, the sub-national governments are expected to enhance local people participations in local decision making by increasing their representation in local governance (Fisman and Gatti, 2002), which as a result, makes the office bearers accountable to the local people.

The accountability and the quality of governance are essential, if not sufficient, conditions for pro-poor growth outcomes (Akai and Sakata, 2002), in which the poor-oriented social services may be delivered more effectively. Von Braum and Grote (2002) affirm that local people's participation improve the governance that consequently enhances the material well-being of the poor. Based on this theoretical understanding we suggest the following hypotheses in order to test the research questions raised in first chapter.

In Pakistan the government machinery runs through three tiers of government: 1. the federal or central government; 2. the provincial government; and 3. the local or district governments. Considering the distinct nature of fiscal, political and administrative relationship between federal government and provincial governments we shall examine the following broad research question: whether or not fiscal power from federal to provincial governments (fiscal decentralisation) helps in poverty reduction. This research question is empirically investigated with the help of the following hypotheses:

Hypothesis 1: The larger the share of provincial governments' expending and revenues share to total (read fiscal decentralisation), other things being equal, leads to poverty reduction (proxy alternatively by headcount poverty, poverty gap and severity of poverty) and improves the living standard of the poor and marginalised (proxy by the HDI).

Based on the conceptual framework and theoretical analysis one can assume that the provincial governments are better able to identify critical areas where public resources are spent with more advantages to the poor. Moreover, it is suggested that the subnational governments provide pro-poor social services according to the needs and preferences of local people. The subnational governments can easily identify the

projects that are socially and economically beneficial to the poor and low income people and also fear being voted out if they fail to satisfy the votesr' needs. This proposition is supported by many including MacNab and Dean (2001) wherein they argue that fiscal decentralisation enhances the pro-poor social expenditures. Supporting the same argument of MacNab and Dean, Gupta et al. (2002) would propose that expenditure on pro-poor social services is the key in poverty reduction.

In many countries including Pakistan, the key social service deliveries like basic education, healthcare services and access to safe drinking water, sanitation and agriculture are the subnational governments' subjects. Phakphian's (2011) argument and UNCDF's (2003) findings may substantiate our proposition, where it is demonstrated that in the process of the social services delivery the sub-national (provincial) governments provide a progressive mechanism for poverty reduction's strategies through people's participation and better knowledge of local conditions. If the provincial governments have more resources they expectedly can enhance the quality and quantity of such services which are considered pro-poor.

Three variables: 1. Education; 2. Healthcare; and 3. Agriculture, are considered to be the crucial elements through which the fiscal autonomy of subnational governments affects poverty reduction outcomes. As demonstrated in chapter 2 and 7, the sub-national governments with more fiscal autonomy would increase spending on basic social services, including education. Education is recognised in the literature (Winkler, 1989; Carnoy and Hannaway, 1993; Florestal and Cooper, 1997; Winkler and Gershberg, 2000) as a main driving force for human resource development and employment generation among other things. Therefore, it is plausible to hold that more spending on education would lead to improving living conditions of the poor. This theoretical background leads us to construct the following hypothesis:

Hypothesis 2: Provincial governments' fiscal autonomy (fiscal decentralisation) leads to more expenditure/investment on basic education that enhances the literacy rate, and hence will transform into improving the livelihood of the poor and the marginalised communities in Pakistan.

In a similar fashion, Enikolopov and Zhuravskaya (2007) suggest that fiscal decentralisation renders into improved basic healthcare facilities to local

communities including the poor, which subsequently translates into poverty reduction. Better healthcare services that result into a healthy workforce plays a key role in increasing productivity and economic growth in one hand, and save the poor and low income groups from spending a big share of their already meager earnings on private hospitals/clinics and medicines on the other. Particularly, in Pakistan where the health sector constitutionally is a provincial subject – though the federal government runs certain health services in parallel to provincial governments' healthcare facilities in respective provinces – provincial governments with more resources would allocate more resources to health sector. Given this, we hypothetically suggest that:

Hypothesis 3: Bigger the ratio of the share of provincial expenditure (revenue) to total national expenditure (revenue), *Ceteris paribus,* lesser will be the Child Motility Rate and the Crude Death Rate (subject to improved healthcare) that in turn shall lead to improve the condition of the poor.

Third channel, through which fiscal decentralisation may improve the well-being of the poor is agriculture sector. In Pakistan agriculture virtually contributes 20% to the GDP, employs 40% of total and 60% of rural employment (Pakistan, 2010-11). Fan et al. (2004; 2007) illustrate that investment in agriculture sector leads to have a significant impact on poverty. In Pakistan the majority of the poor live in rural areas and agriculture plays a central role in rural economy. Thus, it is worthwhile to postulate that high public investment in agriculture will increase the poor's livelihood. Like health and education, agriculture sector also comes under the jurisdictional purview of the provincial governments in Pakistan. It may be postulated that more resourceful provincial governments would invest more on this sector which will have a considerable impact on the level of poverty. In the light of this background, the following testable hypothesis is suggested:

Hypothesis 4: Everything being equal, fiscal decentralisation will increase the agricultural output (proxy by agriculture value-addition and fertilizer consumptions) that in turn will reduce poverty by enhancing the livelihood of the poor.

Based on testable hypotheses developed in this section a comprehensive and robust empirical examination is conducted to see whether or not fiscal decentralisation is

effective in reducing poverty reduction both directly and indirectly through various potential channels. Their results are reported in the following two chapters.

7.5 METHODOLOGY

Following theoretical framework developed in chapter 7 and a number of empirical studies (for example, Ravallion and Chen, 1997; Xie et al., 1999; Deaton and Paxson, 2001; Dollar and Kraay, 2002; Fisman and Gatti, 2002; Jutting et al., 2004; Zang et al., 2004; Kappeler and Valila, 2008; Schaltegger and Feld, 2009)[81], a ray of econometrical specifications is constructed here to address the deterministic factors of poverty. While it is true that none of the studies, except of course Jutting et al., (2004), mentioned above has empirically investigated a link between fiscal decentralisation and poverty *per se* they incorporate certain other factors which potentially affect poverty. For example, Dollar and Kraay (2002) analyse in their econometric analysis the role of economic growth in poverty reduction. Likewise, Fisman and Gatti (2002) examine the impact of fiscal decentralisation on corruption having cross country evidence. Therefore, the empirical methods used by these studies are useful in constructing the econometric models of this study.

Ordinary Least Square (OLS), Fixed Effects (FE) and Random Effects (RE), and Genralised Methods of Moment Instrumental Variables (GMM-IV) econometric techniques are undertaken to test the above-listed hypotheses. Why FE, RE and GMM-IV are used along with OLS is discussed later in the chapter. Two kinds of datasets, simple time series as well as panel, are used in the analysis.

The panel analysis has the advantage of using both time series and cross-section datasets. Davidson and MacKinnon (2004) argue that panel data analysis has the merit to take into account the heterogeneity by allowing for country/region specific effects. It allows for more variability among the variables, restricts multicolinearity and gives more degree of freedom. As a result, it produces more efficient estimators (Baltagi, 2001). Given the high volatility of decentralisation and poverty across the countries or regions/provinces, policy makers have keen interest to disaggregate the

[81] This strand of literature is reviewed in chapter II.

estimates of both the variables and typically evaluate the impact of fiscal decentralisation on the poverty.

In Pakistan the four provinces differ in terms of magnitude of decentralisation, incidence of poverty and level of development in other socio-economic indicators. Looking at national level based on aggregated data may not help us analysing the impact of decentralisation on poverty. Therefore, a panel dataset of four provinces for a period of 35 five years (1975-2009) is constructed to explore this relationship at provincial level.

To test the first hypothesis we apply the following equation using both the OLS and GMM-IV techniques, alternatively.

$$Poverty_t = \alpha + \beta(FD_t) + \gamma(X_t) + \mu_t ; \text{t} = 1, 2, 3, ---, 30 \qquad (7.1)$$

Where ($Poverty_t$) indicator is proxied alternatively by FGT index (i.e. headcount ratio, poverty gap and severity of poverty) and by the HDI – the HDI is defined by the UNDP (2000). Practically, four measures of poverty are used as a dependent variable so as to establish a consistent relationship between fiscal decentralisation and poverty. The variable (FD_t) is the level of fiscal decentralisation as is defined in this chapter as well as in chapter 2. (X_t) controls for a set of other determinants of poverty, which include: government size, the index of pro-poor expenditures, per capita GDP, corruption index, rule of law index, the combination of inflation and unemployment and devolution reform dummy. (μ_t) is the error term and subscript (t) denotes time.

In order to examine the panel regression the following equation is used:

$$\begin{aligned} Poverty_{it} &= \alpha + \beta(FD_{it}) + \beta_2(Pop_{it}) + \beta_3(Own\,\text{Re}v_{it}) + \beta_4(PC_{it}) \\ &+ \beta_5(PPExp_{ti}) + \beta_6(PSDum_{it}) + \beta_7(DRDum_{it}) + \mu_{it} ; \text{t} = 1,2,3,4,----35; \text{and i} = 1,2,3,4 \end{aligned} \qquad 7.2)$$

$Poverty_{it}$ is alternatively proxied by FGT index for each province in panel dataset. The error tem (μ_{it}) is decomposed into two: the province specific unobserved effect,e_i, and a vector of idiosyncratic error term, v_{it}, - that is, $\mu_{it}=e_i+v_{it}$. (FD_{it}) is the level of fiscal decentralisation (expenditure or revenue). As discussed earlier the population of Pakistan is asymmetrically distributed among the provinces. For

instance, the Punjab contains more than 57% of total population, whereas, only 5% of population lives in Balochistan.[82] Furthermore, as highlighted in chapter 4, the intergovernmental resource transfer takes place solely on population basis, which resultantly makes Punjab the biggest beneficiary.[83] Considering the importance of population in terms of resource allocation and other, it is plausible to believe the population (Pop_{it}) as a key deterministic factor of poverty.

Second important determinant of poverty at the provincial level is the capacity and scope of the provinces to raise their own revenues so as to finance their expenditures by indigenous sources. Hypothetically, sub-national governments with better administrative capacity and source of generating own revenue would perform much better in undertaking pro-poor social expenditures. To control this effect, revenue share of each province to the total national revenue (OwnRev_{it}) is included in equation 7.2. Similarly per capita income (PC_{it}) is included to control for other social and economic factors that affect the poor but are not captured by other variables included in equation 7.2. Obviously, higher is the level of per capita income at the province level the lower would be the level of poverty.

Equation 7.2 also includes an index of pro-poor social expenditures ($\mathrm{PPEx}p_{it}$) as an effective determinant of poverty. Hypothetically, greater is the volume of pro-poor expenditures lesser should be the incidence of poverty. Likewise, we introduced a dummy variable (PSDum_{it}) to capture the disparity among provinces in terms of development. The Punjab and Sindh with better social and economic infrastructure are expected to expedite the fiscal and political autonomy more effectively compare to less developed provinces of KP and Balochistan. And finally a dummy variable ($\mathrm{DR\ Dum}_{it}$) is used to capture the devolution reform effect (the devolution reform and its impacts are thoroughly discussed in chapter 10).

It is worthwhile to mention that unlike a conventional approach (discussed in chapter 2) that consider the role of sub-national government in redistribution as counter-

[82] It is noteworthy that the Balochistan holds not only 44 % of total territory of Pakistan but is the most poorest and backward in terms of all socio-economic indicators compare to other three provinces within the federation, as discussed with greater detail in chapter III.

[83] Albeit since 2009-10 more criteria, like backwardness, revenue collections etc. are included in horizontal resource mechanism, population still contains 80 % weight. That preserves domination of Punjab over resources (refer to chapters III and IV for more information).

productive. We, on the contrary, postulate that the role of sub-national government in redistributive policies is effective and productive.

As highlighted earlier, poverty due to its multifaceted dimensions may also be affected by fiscal decentralisation indirectly through certain channels, so an indirect linkage between the two variables is highly likely. Therefore, we propose that decentralisation can improve public service provisions by being more accountable to the local people as well as knowing their needs. A key argument here is that in general improved public services has a positive impact on poverty. We consider three essential services that are not only typically identified as vehicles in reaching out to the poor but constitutionally the same services are the sub-national governments' subjects in Pakistan.

One of potential channels of this relationship is education. There is a direct relationship between public spending, allocated to education as a result of fiscal decentralisation, and reduction in poverty. This is exactly the second testable hypothesis of this study. Hence, in order to test this hypothesis, the following regression equations are used to present both a time series and a panel data analysis respectively:

$$Edu_t = \alpha + \beta(FD_t) + \beta_2(PPExp_t) + \beta_3(PTR_t) + \beta_4(PCHE_t) + \beta_5(Int1_t) + \beta_6(Int2_t) + \beta_7(DRDum_i) + \mu_i \quad ; \qquad t = 1,2,3,4,\text{----}35 \tag{7.3}$$

$$Edu_{it} = \alpha + \beta(FD\ ) + \beta_2(PPExp_{tt}) + \beta_3(PTR_{tt}) + \beta_4(PCHE_{tt}) + \beta_5(Int1_{tt}) + \beta_6(Int2_{tt}) + \beta_7(DRDum_{ti}) + \mu t_i \quad ; \qquad t = 1,2,3,4,\text{----}35 \text{ ; and } 1,2,3 \text{ and } 4 \tag{7.4}$$

Where (Edu_{it}) denotes education outcomes, which alternatively is proxied by combined literacy rate (male and female both). (PTR_{it}) is the pupil-teacher-ratio, which represents the availability of more teachers and resource persons in schools, (GER_{it}) is gross enrollment ratio and ($PCHE_{it}$) is per capita health expenditures that reflects the quality and quantity of healthcare facilities. All three variables are considered as strong determinants of literacy rate.

Similarly, our third hypothesis suggests that fiscal decentralisation affects poverty reduction outcomes through healthcare. In order to test this proposition, we lay down the following econometric specifications (Eq. 7.5 and Eq. 7.6) to provide an overall

country level impact of decentralisation on healthcare outcomes along with a cross-province analysis by having a panel data approach.

$$HealthOut_t = \alpha + \beta(FD_t) + \beta_2(PPB_t) + \beta_3(PPExp_t) + \beta_4(Lit_t) + \beta_5(UrbaPop_t) + \beta_6(Int1_t) + \beta_7(Int2_t) + \beta_8(ERDum_t) + \mu_t; t = 1,2,3,.....35 \quad (7.5)$$

$$HealthOut_{it} = \alpha + \beta(FD_{it}) + \beta_2(PPB_{it}) + \beta_3(GGER_{it}) + \beta_4(Int1_{it}) + \beta_5(Int2_{it}) + \beta_6((Int3_{it}) + \beta_7(Int4_{it}) + \beta_8(ERDum_{it}) + \mu_{it}; t = 1,2,3,.....35; i = 1,2,3,4 \quad (7.6)$$

($HealthOut_{it}$) is the health outcomes, which is represented alternatively by Infant Mortality Rate, Crude Death Rate and Life Expectancy at Birth. Other included variables in equations 7.5 and 7.6 are already discussed.

The third channel through which fiscal decentralisation has a potential impact on poverty outcomes is agriculture sector. As presented earlier, in Pakistan majority of the poor and marginalised are located in rural areas; and rural economy depends considerably on agriculture sector. Therefore, improving agriculture sector would potentially cut down the poverty rate significantly. In Pakistan where the agriculture sector is dealt with provincial governments, it is fair to suggest that fiscally more autonomous provinces can spend more on agriculture, which consequently affect the poor. Accordingly, this in turn would improve the level of employment and income of the people of respected province. In analysing the role of fiscal decentralisation on agricultural sector in Pakistan as well as at subnational level the following two models (7.7 and 7.8) are formulated and used.

$$AgriOut_t = \alpha + \beta(FD_t) + \beta_2(PPExp_t) + \beta_3(CPI_t) + \beta_4(AgriIn_t) + \beta_5(TO_t) + \beta_6(Int1_t) + \beta_7(Int2_t) + \beta_8(Int3_t) + \beta_9(ERDum_t) + \mu_t; t = 1,2,3,.....35 \quad (7.7)$$

$$AgriOut_{it} = \alpha + \beta(FD_{it}) + \beta_2(PPExp_{it}) + \beta_3(TO_{it}) + \beta_4(Int1_{it}) + \beta_5(Int2_{it}) + \beta_6(ERDum_{it}) + \mu_{it}; t = 1,2,3,.....35; i = 1,2,3,4 \quad (7.8)$$

($Agri\ Out_{it}$) is agricultural output that is alternatively proxy by agriculture value-addition and fertilizer consumption. We propose that agriculture productivity is determined by a ray of other variables alongside policies that may alter with the level

of fiscal decentralisation. ($AgriIn_{it}$) is agriculture machinery, (TO_t) is the trade openness and (CPI_t) is consumer price index.

7.6 ESTIMATION METHODS AND ECONOMETRIC ISSUES

Numerous estimation procedures are applied, like simple OLS, GLS Fixed Effects and Random Effects and GMM-IV, in an attempt to control several potential econometric concerns associated with both dependent variable (poverty) and core independent variable (fiscal decentralisation), given the multi-dimensional nature of both variables.

The general formulation of the time series models used in chapter 8 and 9 is as under:

$$Y_t = \alpha + \beta X_t + \nu_t ; t = 1,2,3,.....35 \qquad (7.9)$$

(Y_t) represents independent variable, (x_t) is vector of both main and control independent variables, (β) is the coefficient of vector x_t that would be estimated, v_t is idiosyncratic error term with zero mean and constant variance [$E\ (v_t|x_t) = 0$ t= 1, 2, ...,35], and subscript (t) is the number of observations or time periods.

Similarly, the general specification of the panel data framework used in the same analysis is as follow:

$$Y_{it} = \alpha + \beta X_t + \nu_t + e_i ; t = 1,2,3,.....35; i = 1,2,3,4 \qquad (7.10)$$

The error term contains two components; ($\boldsymbol{v_{it}}$) is idiosyncratic component of error term that captures random disturbances and ($\boldsymbol{e_i}$) component that accounts for province specific characteristics that may not change over time but have consistent effects on poverty. Subscript ($\boldsymbol{i}$) denotes the number of provinces included in the analysis.

The use of panel data increases not only the quantity of data but also enhances the quality of the dataset, because the behaviour of each entity is observed across time. Furthermore, given the variability of both poverty and fiscal decentralisation across provinces simple time series analysis with only country level aggregates may not provide a statistically efficient inference regarding the effectiveness of

decentralisation. More to the point, panel data is expected to give appropriate analysis given the complex issues involved in multi-dimensional nature of both poverty and fiscal decentralisation. As shown earlier the panel analysis also helps us to separate the components of idiosyncratic error and variance in order to examine the changes that take place in endogenous and exogenous variables.

7.6.1 RANDOM EFFECTS AND FIXED EFFECT ESTIMATORS

Using standard OLS on panel dataset produces inefficient, though unbiased results, given the presence of unobserved province fixed effects. Yet, if unobserved province specific effects are correlated with the regressors the OLS estimators become inefficient and biased. The RE and FE estimations, however, help to account for both problems encountered by using the standard OLS.

The Fixed Effects Model investigates the relationship between the outcome variables and predictor within an entity (in our case province). Each province has its own specific characteristics that may or may not affect and influence the outcomes of other provinces. While using FE estimator, it is assumed that some individual effect of entity (province) may make the estimators biased and inefficient, hence need to be controlled. That is, when one of the basic assumptions of zero correlation between explanatory variable and error $[E(e_i x_{it})=0]$ is not met, OLS may fail to provide the efficient and unbiased results. On the contrary, using FE model removes the time variant characteristics from explanatory variables and enables us to assess the predictor's net effects. In FE model it is assumed that the time invariant characteristics distinctive to one entity may not be correlated with other included entities' characteristics. This is because entity's disturbance and constant terms that control individual descriptions may be uncorrelated with other explanatory variables.

FE model is not without its loopholes. It cannot estimate the impact of the time invariant variables like province dummy, which is incorporated in some of the estimations to control province heterogeneity. Using FE model comes at the cost of loss of considerable degree of freedom, which consequently increases the estimators' standard error and reduces the effectiveness of the model to test coefficients.

The Random Effect (RE) Model assumes that the variation across entities is uncorrelated with explanatory variables. Both the province specific effects and

independent variables are not correlated. Under such condition if standard OLS technique is applied, the estimators albeit remain unbiased but become inefficient. This inefficiency of the estimators is the result of not considering the correlation between standard disturbance term and within-entity error within provinces, which obviously makes the estimated standard error biased and creates serious problem for accurate statistical inference (Baum, 2006).

RE model assumes that province-specific effects are not correlated with predictors. If this condition holds RE model produces efficient estimators. In case of the violation of this assumption, the RE model yields inefficient and inconsistent estimators. What is more, in RE model we need to identify those entity characteristics that may or may not affect the explanatory variables.

7.6.1.1 Selection between Random Effects and Fixed Effects Models

Given the cross province nature of panel dataset used in this study, the selection of FE model is supported by theory (Wooldridge, 2002) in order to control the potential cross province unobserved effect. Besides theoretical rationale our choice between fixed effect and random effect model is made based on Hausman test. Hausman (1978) test compares FE with RE, where the null hypothesis is that the coefficients of RE model are same as that of FE. The Hausman test shows the RE models inconsistent if the difference between FE model and the RE model is significant. This inconsistency may be due to the unobserved country effect and the regressors. The Hausman test is explained below:

Null Hypothesis (H_O) = There is no correlation between entity's specific effects and regressors.

Alternative Hypothesis (H_A) = There is a correlation between entity's specific effects and the independent variables.

Under the null, though both random effect and fixed estimators are consistent but in terms of efficiency the former is preferred to the latter. In other words, alternative hypothesis states that FE model is efficient and consistent while RE model is not consistent.

It is important to mention that consistency of the parameters under both FE and RE models are conditioned to the assumption that there is no any correlation between disturbance terms and any of the explanatory variables included in the analysis. Nonetheless, this assumption rarely meets in our analysis. Given the multidimensionality of poverty, fiscal decentralisation and number of other control variables there is the potential danger of endogeneity. In case of endogeneity, using FE or RE models give us inconsistent and biased estimators. In order to handle the potential endogeneity problem, we use GMM-IV approach, which accounts not only for unobserved heterogeneity but also fixes the endogeneity.

7.6.2 GENERALISED METHOD OF MOMENT –INSTRUMENTAL VARIABLES (GMM-IV) ESTIMATIONS

GMM-IV technique is used alongside OLS and FE and RE specifications because:

1. OLS fails to account for the provincial specific effects that may generate unobserved heterogeneity. For instance in equation (7.2) the error term also contains v_i component that captures the provinces unobserved effects, and the OLS specification simply cannot control such effects, which consequently create heterogeneity.
2. The OLS does not take into account the potential endogeneity: some of the explanatory variables may also be determined by dependent variable(s), and potential external shocks may have similar impact on both dependent and independent variables.
3. The fixed effects or within groups estimator although takes into account the $(\boldsymbol{v_i})$ component of the error term, it fails to account the potential endogeneity problem related to poverty, fiscal decentralisation and some of the control variables. Thus, considering the potential endogeneity issue the GMM-IV model is used.

One of the assumptions of strict consistency is that estimators are exogenous. That is they are not determined by the models. The assumption of zero conditional mean must hold in order for linear regression to be used. And there are three possibilities where this assumption may not be met in regression analysis: 1. errors in variables; 2. omitted variable bias; and 3. endogeneity (Baum, 2006:185). In case of violating this assumption, it makes the estimators inconsistent and leads to produce spurious results. Given the complexity involved with the multidimensional nature of both

fiscal decentralisation and poverty dynamics, encountering issues that stem through potential endogeneity is highly likely. As already mentioned the use of simple OLS econometric technique does not take into account endogenous problem that may arise due to the contemporaneous determination of decentralisation and poverty. One of the best ways to treat with endogenous variables and to produce unbiased, efficient and consistent estimators is to use GMM-IV methods. While using GMM-IV estimation techniques give consistent and efficient regression estimates if the estimators face heteroskedasticty of unknown form. But for application of GMM-IV required that we must find valid instrumental variables that are not correlated with error term and highly correlated with endogenous variables. A variable that meets these two conditions may be included in the analysis as an instrument. Since error term cannot be observed therefore the zero correlation assumption of error term and an instrumental variable cannot be tested. This is called orthogonality assumption (Baum, 2006). The second assumption must be tested and can be done so by regressing endogenous variable on potential instrument:

$$X_i = \alpha + \alpha_2 Z_i + \gamma_i \qquad (7.11)$$

In case of null hypothesis of $\alpha_2 = 0$ is not rejected, Z is not a valid instrument to be used. In our analysis internal lag of those variables which are suspect for endogeneity are used an instruments, Z. Obviously we can reject the null hypothesis of $\alpha_2 = 0$; in other words, Z is a valid instrument to use.

7.6.3 SOME OTHER ECONOMETRIC ISSUES

Besides econometric issues discussed above, some other problems also have the potential to make the regression results biased (if not biased inconsistent in some cases both biased and inconsistent) and spurious if they are not found and consequently dealt with. Various econometric tests are carried out to diagnose these potential econometric problems and eventually necessary measures are taken for fixing them. Typically there are multiple ways of dealing with econometric problems once they are detected or suspected. While, given the similar nature of our regression procedures we expect the same potential econometric problems for all hypotheses. For the sake of simplicity and brevity a general discussion on major econometric issues will be presented here.

7.6.3.1 MULTICOLINEARITY

The problem of multicolinearity occurs when the relative movements of two or more independent variables match. In this, the standard OLS estimates become unable to distinguish between the variables. Given the multidimensional nature of fiscal decentralisation and many other independent variables we may have a priori suspect of multicolinearity. For example, variables such as fiscal decentralisation, government size, pro-poor expenditures, per capita GDP, economic openness, per capita income, rule of law and inflation among others may highly be correlated. In order to overcome such and other related problems public finance literature adopts "one independent variable" approach. This resolves some of the econometric problems but it also creates the threat of 'omitted variable(s)' biasness issue. Thus, in order to deal with this and other matters with similar nature, we introduce 'proxy variables' to replace highly correlated variables. Variance Inflation Factors (VIF) test is conducted after each standard OLS regression to examine the level of correlation between the variables.

7.6.3.2 HETEROSKEDASTICTY

The problem of heteroskedasticty occurs when the residuals of the regression are heteroskedastic ($\text{Var}[\varepsilon] \neq \sigma^2$). That is, the variance of residuals is not constant for all observations. In such a case the standard OLS estimators no longer produce minimum variance. The standard error of the coefficients gives inaccurate estimates. In the presence of heteroskedasticty the estimated parameters may remain consistent but inefficient. In order to test for heteroskedasticty we perform Breusch-Pagan/Cook-Weisberg (1979) test. The said test is Lagrange Multiplier (LM) test that bases on the assumption that residuals are normally distributed with *K* degree of freedom. The null hypothesis states that variance of the disturbance terms are homoskedastic. In other words, variance of the error terms is constant. With alternative hypothesis when the test statistic is greater than the critical value. We panel data we used Poi and Wiggins (2001) test, such as LR test for panel heterogeneity.

7.6.3.3 AUTOCORRELATION

One of the fundamental assumptions of Classical Linear Regression Model (CLRM) is that the covariance between the error terms over the time is equal to zero, or the error terms are not correlated with each other (Brooks, 2007). If however the error terms are correlated it creates the problem of *autocorrelation or serial correlation,* which leads to make the standard error biased. Hence, the standard OLS estimators no longer remain the minimum variance ones. This follows that a diagnostic test is required to check for the presence of serial correlation after each standard OLS regression of our analysis.

With the analysis of a long time series of 35 year, we may have a priori suspect of autocorrelation. The graphical method is commonly used as a first hand method to judge the presence of autocorrelation. But to confirm the presence of autocorrelation a formal statistical test is required to apply. Tests such as Durbin-Watson (DW) and Breusch-Godfrey (BG) are the simplest and commonly used tests in time series analysis in order to deduct autocorrelation. DW statistic tests for the presence of correlation between the error term and its first lag value or first order autocorrelation. In order to test for autocorrelation under DW statistic the error term (U_t) is regressed on its previous value:

$$e_t = \rho e_{t-1} + v_t \tag{7.12}$$

Where (v_t) is normally distributed with zero mean and constant variance $(v \sim N(0, \sigma^2))$. The following null and alternative hypotheses are used in DW statistics to test for autocorrelation:

$$H_0 : \rho = 0 \;\&\; H_1 : \rho \neq 0 \tag{7.13}$$

Under the null hypothesis, the error and its one period lag are uncorrelated. In case of the rejection of the null hypothesis, it is concluded that autocorrelation is present. Considering the nature of dataset used in our analysis, entirely uncorrelated variables may not be expected. Given such constraints, the DW statistic is also expressed as the approximation of value(ρ), to provide boundaries beyond which serial correlation thought to be serious.

$$Dw \approx 2(1 - \hat{\rho}) \tag{7.13}$$

Where($\widehat{\boldsymbol{\rho}}$) is the estimated value of ($\boldsymbol{\rho}$) of regression equation (7.14). The DW test does not follow a standard statistical test, instead it provides an upper and a lower critical value and other inclusive regions in between. The criteria for rejecting or not rejecting the null hypothesis are that, the 'null hypothesis is rejected and the existence of positive autocorrelation presumed if DW is less than the lower critical values. The null hypothesis is rejected and the existence of negative autocorrelation presumed if DW is greater than 4 minus the lower critical values. The null hypothesis is not rejected and no significant residual autocorrelation is presumed if DW is between the upper and 4 minus the upper limits' (Brooks, 2007: 169).

Nevertheless, due to hard conditions - the regression should have a constant term, no lag dependent variable in the model and coefficient must be non-stochastic - of DW test, it may not be often applicable. The BG test on the other hand has a chi-square distribution with K degree of freedom. Under the BG test the null hypothesis is that no correlation is present in regression. When the test statistic is greater than critical value the null hypothesis of no autocorrelation will be rejected against the alternative. Following the literature we apply BG and DW statistics to test for the presence of autocorrelation or serial correlation in all standard OLS estimations. For panel dataset we used the Wooldridge (2002) test.

7.7 CONCLUSION

This chapter outlines the dependent variable – poverty – that has already been defined in chapter 2 and described its data structure and sources. A similar description of the core independent variable – fiscal decentralisation – is also provided with the method of its measurement and data sources. Alongside this the main independent variable, other than deterministic variables of poverty, are also explained with their data sources and expected coefficient's sign vis-à-vis poverty.

The testable hypotheses which have been developed in this chapter are tested and their empirical results are reported in following two chapters. Eight econometric models were also constructed in the course of the current chapter to test the described testable hypotheses in the following chapters. Last section of the chapter discusses the selection of various econometric techniques: OLS, FE & RE, and GMM-IV models. The best model is selected to obtain the robust, efficient and

unbiased statistical inference. The potential econometric issues, the diagnostic techniques and the possible remedies to fix them are also discussed in the chapter. The empirical framework and methodology constructed in this chapter are used in the following two chapters to test the hypotheses developed here.

CHAPTER 8

EMPIRICAL RESUTLS I: FISCAL DECENTRALISATION AND POVERTY REDUCTION

8.1 INTRODUCTION

This chapter discusses the empirical results obtained in the study based on the first hypothesis. That is the potential impact of fiscal decentralisation on poverty reduction in Pakistan, which was covered in chapter 4. In first two sections, using both standard OLS and GMM-IV techniques on a time series dataset of overall Pakistan, we examine the effects of reduction in poverty due to fiscal decentralisation in the context of the macro economy. In third section we assess the efficacy of decentralisation in poverty reduction from a more micro-level (regional/provincial level) using a panel dataset of provinces.

While a macro-level approach enables us to identify, evaluate and portray a larger picture of the impact of decentralisation on poverty reduction, it provides only a very narrow understanding about how decentralisation affects poverty reduction programmes at individual provincial or regional level. Although, a provincial level analysis does not reflect the overall impact of decentralisation on poverty, this approach shows with greater details the effectiveness of the fiscal decentralisation on poverty given the relative level of decentralisation, incidence of poverty and other characteristics of each province. We employ both approaches in order to be able to present a holistic and accurate analysis of the subject of our research.

The regressions results are presented with the sign and level of significance of the coefficient of all included variables. The reported results are followed by a rigorous analytical discussion. Among provinces poverty reduction has been more prominent in the Punjab than other three provinces. Balochistan, on the other hand, has been

less successful in poverty reduction, although it followed a similar trend as of other provinces.

Chapter 5 highlights the wide differences of the incidence of poverty in rural and urban areas of Pakistan. Moreover, our analysis of fiscal decentralisation is the transfer of expenditure or revenue powers from the federal to provincial governments, instead of transferring it to local governments. And decentralisation to the second tier of governments (provincial) hypothetically may be more effective in affecting urban poverty than the rural one. Since poverty is more prevalent in rural areas the effectiveness of decentralisation in terms of urban poverty reduction alone may not be sufficient to reduce the overall poverty in Pakistan. Under this milieu the impact of fiscal decentralisation is statistically examined separately on rural and urban poverty respectively.

8.1 DESCRIPTIVE STATISTICS

The descriptive statistics of overall Pakistan variables based on various data sources[84] are reported in table 8.1. The value of total incidence of poverty ranges from 17.29 to 41.43 with 6.08 standard deviation and 26.4 average, while the values of rural poverty and urban poverty range from 18.32 to 45.6 with 6.25 standard deviation and 29.3 average, and 37.17 to 11.1 with 6.44 standard deviation and average of 22.09, respectively. Similarly, the ratios of expenditure decentralisation (1 and 2) vary from 0.17 to 0.68, with 0.159 dispersion and 0.35 mean, and 0.19 to 0.7 with 0.165 standard deviation and 0.452 mean, respectively. The ratio of revenue decentralisation ranges from 0.08 to 0.27 with 0.056 standard deviation and 0.19 mean for first measurement whereas it takes the ratio of 0.06 to 0.26 with 0.060 standard deviation and 0.158 mean values for the second measurement.

The data for HDI are available only for overall Pakistan and not for provinces. For panel analysis, where the same index is required for each province for an extended period, therefore, the HDI is not used as a proxy of poverty in panel analysis.

[84] Data sources and variables description are discussed in chapter VII.

Table 8.1: Summary Statistics (Overall Pakistan Sample)

Variables	Obs.	Mean	Std. Dev.	Min	Max
Bottom 20% population share in National Income	35	6.916286	0.558696	6.19	7.88
Corruption Index	35	2.383793	0.217031	2.1	2.91
Expenditure Decentralisation (1)	35	0.35	0.159023	0.17	0.68
Expenditure Decentralisation (2)	35	0.452571	0.165447	0.19	0.7
GDP growth	35	5.331429	1.901976	1.7	9
Gini-Coefficient	35	0.387429	0.026496	0.35	0.43
Human Development Index	35	0.409143	0.050338	0.321	0.499
Misery Index	35	18.292	6.771174	5.3	30.33
Overall Poverty	35	26.44771	6.080332	17.29	41.43
Overall poverty Gap	35	5.528571	1.068776	3.94	8.21
Overall Severity of Poverty	35	0.293639	0.175122	0.11848	0.9631323
Per Capita GDP	35	3.6198	0.110446	3.431	3.818
Per Capita Subsidies consumption	35	182.0837	200.198	16.68	698.43
Pro-poor expenditures	35	61.33229	43.35778	4.59	178.07
Revenue Decentralisation (1)	35	0.190286	0.056333	0.08	0.27
Revenue Decentralisation (2)	35	0.158571	0.060203	0.06	0.26
Rule of Law	35	-0.70275	0.117837	-0.97167	-0.4840312
Rural Poverty	35	29.30143	6.252005	18.32	45.6
Rural Poverty Gap	35	6.370286	1.137447	4.7	8.87
Severity of Poverty, Rural	35	0.391386	0.214837	0.203287	1.124178
Severity of Poverty, Urban	35	0.174578	0.153543	0.053487	0.8145185
Size of Government	35	22.8	3.094587	17	27
Urban Population (%)	35	31.25714	2.944015	26	37
Urban Poverty	35	22.09	6.444877	11.1	37.19
Urban Poverty Gap	35	4.217429	1.126555	2.91	7.55

Various measures of poverty are used; firstly, to ensure the consistent relationship between fiscal decentralisation and poverty and secondly, to assess the effects of fiscal decentralisation on the various groups among the poor. For instance, the poverty gap or the depth of poverty indices, that describe the distribution of the poor, measures the average income shortfall as proportion of poverty threshold and reports on average how much income is required to bring them up to the poverty line. Likewise, severity of poverty index assigns more weight to the poorest of the poor in order to identify the very poor who need immediate help. Similarly, the use of the

HDI reflects how decentralisation is instrumental in affecting poverty through different dimensions including the HDI.

8.2 THE RELATIONSHIP BETWEEN FISCAL DECENTRALISATION AND POVERTY REDUCTION

Based on the methodological framework elaborated earlier in this thesis, poverty is regressed on fiscal decentralisation, pro-poor public expenditures and a host of other explanatory variables. Given the data limitations and measurement errors associated with both fiscal decentralisation and poverty, definitive conclusions may be hard to obtain but regression results indicate that fiscal decentralisation, if measured as the ratio of provincial governments' expenditure to total national expenditure helps reducing poverty – either measured by FGT (headcount poverty, poverty gap, severity of poverty) or the HDI. When fiscal decentralisation is measured as the ratio of provincial governments' revenue to total national revenue, it apparently ameliorates poverty. The potential reasons for revenue decentralisation's adverse impact on poverty are discussed in greater length later in the chapter.

The regression results of econometric specification of equation (7.1) are reported in table 8.2 using simple OLS techniques. In first row of table 8.2, the headcount poverty, poverty gap and severity of poverty are reported alternatively. The regression results show that, in general, fiscal decentralisation has a significant impact on poverty reduction in Pakistan. In first column, where fiscal decentralisation is defined as ratio of provincial to total expenditure, the relationship between fiscal decentralisation and headcount poverty is positive and strongly significant at 1% level. The negative and statistically significant coefficient of decentralisation supports our argument of the redistributive role of provincial governments. In contrast to this outcome, if the coefficient of fiscal decentralisation was statistically insignificant or significant but positive and close to zero then the greater share of provincial governments to total national expenditure would not have been associated with effective in reduction of poverty. Regarding the magnitude and the effect of decentralisation on poverty, everything else remains constant, the increase of one standard deviation in expenditure decentralisation (around 0.159%

point increase), the poverty will reduce by 0.067% of a standard deviation.[85] In other words, with one unit increase in the share of provincial governments' spending to national expenditure, the headcount poverty will reduce by almost 0.65 units, *ceteris paribus*.

Considering that fiscal decentralisation is measured as the share of provincial governments' expenditures to national expenditures after subtracting debt servicing from federal government's budget – ranges from 19% to 70% – the coefficient of fiscal decentralisation maintains its statistical significance at 1%, though the magnitude of relationship alters.

It is noteworthy that adjusting for omitted variable biasness by including a ray of control variables does not seem to be changing the statistical relationship between fiscal decentralisation and poverty. The first control variable is the index of pro-poor expenditures that is the index of public expenditures on basic education, basic healthcare, housing and welfare scheme and sanitations, social services and social security, which are considered to be instrumental in affecting the poor positively and enhancing their living standard. Therefore, this index, which is expressed in per capita terms, is expected to have a positive and statistically significant impact on poverty reduction. Supporting the theoretical proposition, pro-poor expenditures' index has a negative and statistically significant coefficient vis-à-vis headcount poverty. This suggests that an increase in pro-poor expenditure will lead to have a considerable impact on poverty reduction. That is, one unit increase in pro-poor expenditure in national budget[86] will decrease headcount poverty at national level by around 0.166 units.

Another important control variable is the size of government, which is measured as the share of public sector in total real GDP. The size of government reflects the size and dimension of total national budget and the ability of public sector to carry out projects which potentially have a significant impact on the poor.

[85] Multiplying the coefficient of fiscal decentralisation (0.0.64) by the standard deviation of fiscal decentralisation (0.159) and then divide it through by the standard deviation of headcount poverty (6.080) we obtained figure 1.6.

[86] While constructing pro-poor expenditure index, we combined federal as well as provincial budget allocations to education, basic healthcare, social services, social security and welfare and housing, which are in real terms based on 1980 constant prices. Furthermore, the same index is divided on total population to obtain the per capita pro-poor expenditure. Both population and pro-poor expenditure are expressed in millions.

Table 8.2: The Determinants of Headcount Poverty, Poverty Gap and Severity of Poverty

Model: OLS (Core Independent Variable: Expenditure Decentralisation)										
Dependant Variables	**Headcount Ratio (overall)**	**Headcount Ratio (overall)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Urban)**	**Headcount Ratio (Urban)**	**Poverty Gap (1)**	**Poverty Gap (2)**	**Severity of Poverty Æ (1)**	**Severity of Poverty Æ (2)**
Fiscal Decentralisation (Exp)1	-0.6482***		-0.6658***		-01.354***		-0.7917***		-0.361**	
	(0.2292)		(0.2361)		(0.3129)		(0.259)		(0.1684)	
Fiscal Decentralisation (Exp) 2		-0.334*		-0.3727)*		-0.2702**		-0.452**		-0.339**
		(0.1704)		(0.19119)		(0.217)		(0.1953)		(0.1232)
Pro-poor Expenditure	-0.1664***	-0.1435***	-0.0642***	-0.1533***	-0.1582***	(-0.1311***	-0.18)***	-0.1521***	-0.0205***	-0.0085
	(0.035)	(0.031)	(0.00989)	(0.035)	(0.0464)	,(0.0402)	(0.0385)	(0.0362)	(0.0057)	(0.006)
Government Size	-0.0639***	-0.0556***	(-0.1666)***	-0.0453***	-0.064***	-0.054***	-0.0613)***	-0.0461***	-0.242***	-0.225***
	(0.0098)	(0.0098)	(0.035)	(0.011)	(0.0131)	,(0.0127)	(0.0108)	(0.0114)	(0.044)	0.0383
Per Capita GDP	-0.06*	-0.00439*	0.0347	0.0029	-0.0172*	-0.0207*	0.0405*	-0.00408*	-0.0005	(-0.0057)
	(0.0126)	(0.01062)	(0.0585)	(0.1563)	(0.0775)	(0.0604)	(0.0644)	(0.0544)	(0.009)	0.0081
Corruption Index	0.1428*	0.3108**	0.3312**	0.1905*	0.5738***	0.5586***	0.495***	0.3324**	0.3129***	0.1654**
	(0.1079)	(0.13935)	(0.1357)	(0.4139)	(0.1798)	,(0.173)	(0.1493)	(0.1557)	(0.089)	(0.078)
Rule of Law	-0.801	-0.583	-0.7998*	-0.6261	-1.106**	(1.12**	-1.26***	-0.9665**	-0.992**	(0.7169**
	(0.4084)	(0.36902)	(0.4007)	0.01191	(0.5309)	,(0.4676)	(0.441)	(0.4209)	(0.3638)	(0.295)
Interaction term(Fiscal	-0.918***	-0.6033***	-0.902***	-0.387**	-1.619***	-1.257***	-0.199	-0.1845	0.112	0.1218
Decentralisation*Devolution	(0.3420)	(0.1668)	(0.3438)	(0.1872)	(0.4556)	(0.2138)	(0.378)	(0.1924)	(0.221)	(0.117)
Reform Dummy)										
Misery Index (Combination of	0.0093***	0.0083***	0.0093***	0.0109***	-0.00046	0.00468*	0.0006*	0.0004*	0.00012	-0.00002
Inflation and unemployment)	(0.0032)	(0.002)	(0.0032)	(0.0033)	(0.0042)	(0.00381)	(0.0035)	(0.0034)	(0.0023)	(0.002)
Constant	4.16***	3.975***	4.163***	4.086***	3.522***	2.9164***	1.941***	2.08***	0.357*	0.6104**
	(0.401)	(0.4003)	(0.3908)	(0.449)	0.5179	(0.50105)	(0.4301)	(0.451)	(0.271)	(0.2415)
N	35	35	35	35	35	35	35	35	35	35
R-squared	0.88	0.9	0.88	0.86	0.9	0.917	0.82	0.81	0.89	0.9
Adj R-squared	0.85	0.88	0.84	0.82	0.87	0.892	0.76	0.76	0.85	0.86

Robust Standard Errors are in parentheses. Æ Standard errors are adjusted for clusters in severity in poverty due to potential presence of autocorrelation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, variable expressed in logarithm.

Albeit, in theory it may be argued that fiscal decentralisation changes the size of government by altering the public expenditure composition, it may not account for the size of total public expenditure. Thus the size of the government variable is included in our analysis to explain explicitly other possible factors of public sector that may not be fully captured by fiscal decentralisation variable. A larger public expenditure share to GDP is expected to accommodate projects that are aimed to target the poor at federal as well as provincial level. It also facilities other public sector schemes that may directly[87] and indirectly[88] enhances the well-being of lower and middle income groups. Furthermore, it may be maintained that with relatively smaller size of the government, more decentralisation would leave the federal government with less available resources to finance projects that are expected to have distributional impact on overall country rather than limited to a specific province. In this case the overall distributional impact of public projects would be narrower. Given this, fiscal decentralisation with smaller expenditure-GDP-ratio may lead to increase the regional income inequality. The reported results show that government size is appeared to have a predictive power in explaining poverty; having a negative sign and statistically significant with 1% confident interval.

Similarly, among other macroeconomic variables, the variables that potentially have an adverse impact on poverty are inflation and unemployment. Following Martinez–Vazquez and MacNab (2006) and Iqbal and Saima (2010) we construct the Misery Index, which is the aggregation of inflation and unemployment that is used as a proxy for macroeconomic stability and assesses its impact on headcount poverty. As expected, Misery Index with a significant coefficient seems to have an adverse impact on poverty (table 8.2).

The rule of law index is included to assess the structural characteristics of the supremacy of law and equal social and economic opportunity available to all individuals across the country. The same index is expected to capture political freedom that shows the level of participation in political process and therefore have power to influence the trend and composition of public expenditure that consequently affect the level of poverty. Contrary to the theoretical explanation the

[87] Tertiary and public health projects may be given as example.
[88] For instance, private income of these groups may increase due to the productivity gain of public sector schemes.

coefficient of the rule of law shows that the latter variable is negatively correlated with poverty, though it is not significant. The reason for the negative correlation may be that Pakistan has a very poor record of rule of law (TI, 2007). This is because justice is either denied or delayed to the majority of the people. Nepotism and favouritism is widespread across the society (Hussain, 2006). Ethnic and social stratification is very high (Cohen, 2006). And finally at political front, due to autocratic regimes through military dictators, the democratic norms are either non-existent or very weak (Adeney, 2007b). Due to these reasons, the country therefore, obtained a high score in *Freedom House's* rule of law index.

Similarly, the index of corruption is included to control for the impact of public funds' embezzlement as well as the political and elite capture that diverts public funds to suffice the specific groups' ends rather than benefiting the poor. The coefficient of corruption index is significant at 10% and showing an expected positive sign to poverty. It exhibits that high level of corruption has a negative and adverse impact on poverty.

Since the overarching objective of the devolution reform[89] was to reduce poverty by empowering the local people through their indigenous political representatives, it is likely to have a positive impact on poverty, particularly rural poverty. Following Assamoi Yao (2006) an interaction term of fiscal decentralisation and the devolution reform dummy is created to examine whether further devolution or decentralisation to the third tier of governments (local governments) along with expenditure decentralisation to the provinces helps reducing poverty or not. The regression coefficient of interaction term maintains a negative sign and strongly significant. It suggests that decentralisation to third tier of government is considerably instrumental in headcount poverty reduction.

Second, fiscal decentralisation (2) is used that is measured as the ratio of provincial governments' expenditure to national expenditure minus debt payment.[90] As shown in table 8.2, the coefficient of fiscal decentralisation (2) is significant at 10% and negatively correlated with headcount poverty ratio. This suggests that even if we

[89] The devolution reform and its impact on social service provision and poverty are thoroughly elaborated in chapter X.

[90] While being a highly indebted country, Pakistan devoted a considerable portion of its national budget on debt servicing (interest and principal amounts' repayment). Pakistan's external debts and liabilities were 31.6 % of GDP in 2010 (Pakistan, 2010-11).

deduct debt repayments from national expenditure before measuring for fiscal decentralisation, the latter still remains influential in reducing headcount poverty. All other variables are consistent with their level of significance and coefficient signs in second model as of the first one, though the magnitude of responses of explanatory variables to headcount poverty are slightly modified.

As columns 4 and 5 of the table 8.2 show, the coefficients of fiscal decentralisation (1 and 2) are statistically significant and reporting the expected negative sign. Among other variables the magnitude of pro-poor expenditures' effectiveness and the coefficient sign of per capita GDP growth to headcount poverty reduction are noticeable. For rural poverty the coefficient of per capita GDP growth with positive sign suggests that it has an adverse impact on poverty, which is in contrast to our hypothesis. However, with insignificant parameter, per capita GDP growth seems to be irrelevant in explaining the rural poverty dynamics in Pakistan. The fundamental reason would be the abysmal performance of agricultural sector in the country over an extended period of time. As we showed earlier, more than 60% of rural population dependents on agriculture directly or indirectly to extract their livelihood (Pakistan, 2010-11). Thus, weak performance in agricultural sector is very likely to have a significant impact on rural poverty. Furthermore, around 60% contribution to GDP comes from service sector, which experienced a much higher growth rate over the last three decades than commodity producing sectors: i.e. agriculture and manufacturing. Obviously, urban people benefit more from services sector than their rural counterparts. Contrary to rural poverty, per capita GDP is significant, albeit only with 10%, and has a negative sign vis-à-vis urban poverty. Thus, it may be concluded that GDP growth with more and increasing share of service and manufacturing sectors than agriculture has the explanatory power for urban poverty. In addition, positive but insignificant coefficient of per capita GDP growth to rural poverty shows that the former is skewed towards urban areas therefore the rural poor have been failed to reap the fruits of GDP growth. Likewise, pro-poor expenditures seem to be less effective in terms of rural poverty reduction compare to urban poverty (see column 6 of table 8.2). The index of pro-poor expenditures contains basic healthcare and education including others. It is observed that urban areas received a much better investment in these areas than rural ones.

Columns 7 and 8 of table 8.2 report the regression results when the poverty gap is used as dependent variable, using the same baseline equation (7.1). The findings are almost similar to those already obtained by using headcount poverty as a poverty predictor. The regression results seem to support a negative relationship between fiscal decentralisation and poverty gap. This indicates that one percentage point increase in fiscal decentralisation tends to reduce the poverty gap by 0.79 percentage point between the average poor and the national poverty threshold.

With the similar fashion, fiscal decentralisation seems to be effective in reducing equality among the poor, which is captured by the severity of poverty or squared poverty gap. Statistically significant coefficients of fiscal decentralisation vis-à-vis severity of poverty gap models - reported in last two columns of table 8.2 - illustrate that one percentage point increase in fiscal decentralisation would decrease the severity of poverty by 0.36 and 0.34 percentage point increase respectively.[91] Observing the value of R-squared and adjusted R-squared, it is clearly evident that all OLS models described in table 8.2 explain about 76% to 91% variation of poverty. Overall these models are fit considering the socio-economic nature of the dependent variables with multiple dimensions.

As discussed earlier, given the presence of potential endogeneity associated with poverty, fiscal decentralisation, pro-poor expenditures and government size or any other explanatory variable, standard OLS procedure may lead to produce inconsistent and inefficient results. In this case GMM-IV estimation techniques with appropriate instrumental variables can be used to account for potential endogeneity. In our analysis the problem of endogeneity may occur with fiscal decentralisation and pro-poor expenditures variables.

Pakistan politically and socially is a very volatile country with frequent military interventions in political affairs she experiences social tensions in ethnic and sectarian lines. Moreover, the country has been highly dependent upon foreign aids/loans for her budgetary and balance of payments supports. Therefore, regimes change due to military coup d'états, internal and external wars, and unexpected

[91] One of the important determinants of severity of poverty, Gini coefficient, is not included due to the potential endogeneity (reverse causality), the potential impact of severity of poverty in explaining Gini-coefficient. In order to overcome this possible econometrical problem, we used GMM-IV for technique wherein Gini coefficient is included as control variable. The regression results of GMM-IV, which are reported in table E.1 in appendix E, are not different than what we obtained using OLS.

sectarian strife as well as the change in foreign lenders/donors' policies are highly likely to affect the poverty outcomes, the level of fiscal decentralisation, governments' expenditures on pro-poor social services and the subsidies.

Given this, it is very likely that the use of standard OLS techniques therefore makes the estimated results biased and inconsistent. To account for these issues related to endogeneity, GMM-IV technique is adopted, where the lag values of potentially endogenous variables are used as relevant instruments. One year lag values of expenditure decentralisation, pro-poor expenditures and government expenditures to GDP are used as internal instrumental variables.

The regression results of GMM-IV model are reported in table 8.3. It is worth noting that the variables of interest, fiscal decentralisation and pro-poor expenditures, maintain the same relationship with headcount poverty and poverty gap with similar level of significance as we observed while using standard OLS. Severity of poverty turns out to be insignificant when fiscal decentralisation (2) is used. Following the classical decentralisation literature, first measurement of expenditure decentralisation is thought to give more reliable information so it is used almost in all studies of decentralisation. Obtaining the similar results for expenditure decentralisation for all measures of poverty in GMM-IV procedure confirms the robustness of our analysis.

Table 8.4 and table 8.5 provide the results where *revenue decentralisation* is used as core independent variable. The results suggest a positive but insignificant relationship between revenue decentralisation and headcount poverty reduction, suggesting that revenue decentralisation might not help in reducing headcount poverty. But prior to inferring any conclusions from the outcomes, it is worth pointing out that

Table 8.3: The Determinants of Headcount Poverty, Poverty Gap and Severity of Poverty

Model GMM-IV (Core Independent Variable: Expenditure Decentralisation)										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependant Variables	**Headcount Ratio (overall)**	**Headcount Ratio (overall)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Urban)**	**Headcount Ratio (Urban)**	**Poverty Gap**	**Poverty Gap**	**Severity of Poverty**	**Severity of Poverty**
Fiscal Decentralisation (Exp)1	-1.265***		-1.177***		-1.567***		-0.896***		-0.401**	
	(0.258)		(0.337)		(0.335)		(0.255)		(0.163)	
Fiscal decentralisation Exp (2)		-0.993***		-0.879**		-1.181**		-0.565**		-0.234
		(0.349)		(0.377)		(0.478)		(0.287)		(0.162)
Pro-poor Expenditure	-0.210***	-0.153***	-0.220***	-0.165***	-0.189***	-0.115**	-0.193***	-0.148***	-0.224***	-0.203***
	(0.037)	(0.037)	(0.042)	(0.037)	(0.039)	(0.045)	(0.050)	(0.042)	(0.036)	(0.031)
Government Size	-0.0840***	-0.0486**	-0.0791***	-0.0480*	-0.0654***	-0.0235	-0.0659***	-0.0463***	-0.0236***	-0.0156*
	(0.013)	(0.024)	(0.015)	(0.026)	(0.013)	(0.030)	(0.010)	(0.017)	(0.005)	(0.008)
Corruption Index	0.673***	0.286*	0.658***	0.308**	0.636***	0.168	0.530***	0.286**	0.288***	0.183***
	(0.097)	(0.152)	(0.111)	(0.156)	(0.103)	(0.210)	(0.096)	(0.139)	(0.059)	(0.064)
Rule of Law	-1.539***	-0.824**	-1.813***	-1.136***	-1.424***	-0.525	-1.434***	-0.891***	-0.956***	-0.707***
	(0.408)	(0.328)	(0.462)	(0.360)	(0.411)	(0.354)	(0.403)	(0.260)	(0.264)	(0.179)
Per Capita GDP	-0.0268**	-0.0129	-0.0261*	-0.0119	-0.0130	-0.00566	0.0144	0.000544	0.00267	-0.00411
	(0.012)	(0.015)	(0.016)	(0.018)	(0.016)	(0.017)	(0.014)	(0.013)	(0.007)	(0.007)
Devolution Reform Dummy	-0.244**	-0.198	-0.201	-0.175	-0.354***	-0.315	-0.0590	-0.0758	0.0118	-0.00246
	(0.118)	(0.186)	(0.141)	(0.196)	(0.112)	(0.237)	(0.080)	(0.132)	(0.049)	(0.069)
Misery Index$	0.0054**	0.0075***	0.0074**	0.0208**	-0.0069	0.00567*	0.0017*	0.0064**	0.00112	-0.00432
	(0.0032)	(0.002)	(0.0032)	(0.0033)	(0.0042)	(0.00381)	(0.0035)	(0.0034)	(0.0023)	(0.002)
Constant	3.641***	4.109***	3.476***	3.921***	3.312***	3.902***	1.910***	2.274***	0.441**	0.609***
	(0.328)	(0.273)	(0.409)	(0.308)	(0.319)	(0.376)	(0.263)	(0.203)	(0.196)	(0.149)
N	34	34	34	34	34	34	34	34	34	34
R^2	0.876	0.838	0.809	0.786	0.886	0.826	0.778	0.783	0.875	0.893
adj. R^2	0.843	0.794	0.757	0.728	0.855	0.779	0.719	0.724	0.841	0.864

Robust Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, Variables expressed in logarithm. $ Combination of Inflation and unemployment

revenue decentralisation has always lagged far behind the expenditure decentralisation in Pakistan, where the federal government controls the majority of tax and non-tax revenue sources and then transfers a portion of them to provinces through National Finance Commission (NFC) Awards based on certain criteria (see chapter 6 for more discussion on NFC and other resource transfers mechanisms). Given the weak revenue decentralisation and kind of a cyclic pattern of poverty in Pakistan over the last three and half decades, it is hard to conclude any statistical relationship between fiscal decentralisation, when it is measured in terms of revenue, and poverty.[92]

[92] Taking into account that revenue decentralisation (2), measured as the ratio of provincial revenue minus grants-in-aids to total revenue - ranges from 6 % to 26 % of total revenue - neither the statistical relationship between fiscal decentralisation and headcount poverty changes nor the coefficient of decentralisation becomes significant.

Table 8.4: The Determinants of Headcount Poverty and Poverty Gap and Severity of Poverty

Model : OLS (Core Independent Variable: Revenue Decentralisation)										
Dependant Variables	**Headcount Ratio (overall)**	**Headcount Ratio (overall)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Urban)**	**Headcount Ratio (Urban)**	**Poverty Gap (overall)**	**Poverty Gap (overall)**	**Severity of Poverty Æ (1)**	**Severity of Poverty Æ (2)**
Fiscal Decentralisation	0.6891		0.4075		1.46*		1.172*		1.352***	
(Rev) 1	(0.56409)		(0.648)		(0.779)		(0.6425)		(0.4423)	
Fiscal Decentralisation		0.6654		0.4117		1.306		0.4777		0.9178
(Rev) 2		(0.5316)		0.6077		(0.772)		(0.6361)		(0.545)
Government Size	-0.0659***	-0.0645***	-0.059***	-0.058***	-0.049***	-0.044***	-0.054***	-0.0544***	-0.0144**	-0.014**
	(0.0105)	(0.0104)	(0.0121)	(0.0118)	(0.014)	(0.015)	(0.0119)	(0.0124)	(0.0055)	(0.0057)
Pro-poor Expenditure	-0.004***	-0.00417***	-0.003**	-0.0033**	-0.0058***	(0.0061***	-0.005***	-0.0046***	-0.2741***	-0.27***
	(0.0012)	(0.0013)	(0.0014)	(0.0015)	(0.0017)	(0.0019)	(0.0014)	(0.0016)	(0.049)	(0.0626)
GDP Growth	-0.0042	-0.004	-0.0028	(-0.0031)	-0.0241*	-0.024*	0.002	-0.0027	(-0.0068)	-0.0064
	(0.0111)	(0.0121)	0.0120	(0.013)	(0.0154)	(0.0175)	(0.0127)	(0.0144)	(0.0059)	(0.0082)
corruption Index	0.4114**	0.4176**	0.312	0.315	(0.5168)**	0.513**	0.551***	0.5263**	0.2099***	0.228***
	(0.1608)	(0.164)	(0.1849)	(0.1879)	(0.2223)	(0.2387)	(0.1832)	,0.1966	(0.062)	(0.0782)
Rule of Law	-0.322	-0.318	-0.243	-0.2315	-0.8405	-0.837	(1.006**	-0.944	-0.747***	-0.785**
	(0.4881)	(0.496)	(0.5611)	(0.567)	(0.6745)	(0.72)	,0.556)	(0.5935)	(0.2536)	(0.3105)
Interaction	-1.455***	-1.6175***	-1.204***	-1.375***	-2.13***	-2.16***	-0.495	-0.506	-0.142	-0.0454
term(FD*Economic Reform	(0.3608)	(0.4294)	(0.4148)	(-0.4909)	(0.4987)	0.6235	(0.411)	(0.5138)	(0.1983)	(0.2429)
Dummy)										
Misery Index	0.0108***	0.0096**	0.0143***	0.0134***	(0.0059)*	0.0041*	0.0035*	0.004*	-0.0013	-0.0021
	,0.0034)	(0.0039)	(0.0039)	(0.0045)	(0.0047)	(0.0057)	(0.00393)	(0.004)	(0.0019)	0.0034
Constant	3.572***	3.5803***	3.747***	3.762***	2.5890***	2.593***	0.9604**	1.187*	0.4424**	0.4734
	(0.6062)	(0.6268)	(0.696)	(0.716)	(0.837)	(0.91)	(0.6905)	(0.75)	(0.2003)	0.2304**
R-squared	0.87	0.87	0.8	0.81	0.86	0.85	0.75	0.73	0.91	(0.89)
Adj R-squared	0.83	0.83	0.75	0.75	0.82	0.8	0.68	0.64	0.88	0.85

Robust Standard Errors are in parentheses. Æ Standard errors are adjusted for clusters in severity in poverty due to potential presence of autocorrelation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$% and 1% level respectively

Table 8.5: The Determinants of Headcount Poverty and Poverty Gap and Severity of Poverty

Model: GMM-IV	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
Dependant Variables	**Headcount Ratio (overall)**	**Headcount Ratio (overall)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Rural)**	**Headcount Ratio (Urban)**	**Headcount Ratio (Urban)**	**Poverty Gap**	**Poverty Gap**	**Severity of Poverty**	**Severity of Poverty**
Fiscal Decentralisation (Rev) 1	2.072***		2.514***		1.551*		1.396***		0.864***	
	(0.570)		(0.657)		(0.798)		(0.534)		(0.323)	
Fiscal Decentralisation (Rev) 2		2.292***		2.600***		1.980**		1.608***		0.829***
		(0.512)		(0.574)		(0.785)		(0.504)		(0.309)
Pro-poor Expenditure	-0.213***	-0.251***	-0.248***	-0.285***	-0.147**	-0.191***	-0.192***	-0.222***	-0.234***	-0.243***
	(0.041)	(0.046)	(0.045)	(0.055)	(0.058)	(0.060)	(0.060)	(0.064)	(0.039)	(0.043)
Government Size	-0.0733***	-0.0700***	-0.0651***	-0.0625***	-0.0593***	-0.0548**	-0.0589***	-0.0562***	-0.0188***	-0.0184**
	(0.018)	(0.016)	(0.019)	(0.017)	(0.022)	(0.022)	(0.015)	(0.015)	(0.007)	(0.007)
corruption Index	0.345***	0.344***	0.309**	0.319***	0.307	0.288	0.303**	0.298**	0.169***	0.177***
	(0.111)	(0.104)	(0.132)	(0.119)	(0.198)	(0.195)	(0.130)	(0.128)	(0.059)	(0.062)
Rule of Law	-0.466	-0.528*	-0.788**	-0.866***	-0.140	-0.183	-0.677**	-0.718***	-0.606***	-0.634***
	(0.341)	(0.306)	(0.341)	(0.327)	(0.443)	(0.402)	(0.287)	(0.275)	(0.155)	(0.165)
GDP Growth	-0.00426	0.00382	0.000669	0.00887	-0.0314**	-0.0230*	-0.00797	-0.00196	-0.00596	-0.00370
	(0.008)	(0.007)	(0.009)	(0.009)	(0.015)	(0.014)	(0.010)	(0.010)	(0.005)	(0.005)
Devolution Reform Dummy	-0.502***	-0.433***	-0.428***	-0.353***	-0.698***	-0.633***	-0.244**	-0.194*	-0.0653	-0.0429
	(0.125)	(0.121)	(0.135)	(0.130)	(0.157)	(0.165)	(0.110)	(0.113)	(0.053)	(0.057)
Constant	4.336***	4.340***	4.119***	4.124***	4.178***	4.179***	2.402***	2.405***	0.660***	0.662***
	(0.220)	(0.223)	(0.209)	(0.218)	(0.545)	(0.525)	(0.286)	(0.289)	(0.133)	(0.138)
N	34	34	34	34	34	34	34	34	34	34
R^2	0.863	0.868	0.818	0.823	0.824	0.823	0.738	0.720	0.877	0.863
adj. R^2	0.826	0.832	0.769	0.776	0.777	0.776	0.668	0.645	0.844	0.826

Robust Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Variables expressed in logarithm.

8.3 FISCAL DECENTRALISATION AND HUMAN RESOURCE DEVELOPMENT

In addition to FGT indices of income poverty we use the HDI as proxy of poverty. The HDI is used in order to assess the consistency in the relationship between fiscal decentralisation and poverty reduction. Compared to FGT indices the use of the HDI gives us a broader understanding of welfare. Analysing the impact of fiscal decentralisation and public expenditures on pro-poor social services, the HDI helps us to see the association of various dimensions of poverty and provincial autonomy in implementing and monitoring public expenditures.

As stated earlier, the HDI index combines the indicators of basic education, healthcare and level of income. An increase in the HDI normally represents a decrease in the level of poverty. The measurement of the HDI is consistent due to its single and well-defined measures of health and education as well as per capita income, against FGT indices that may suffer from measurement inconsistency.

Table 8.6 reports the results using the GMM-IV techniques. These results show that there is a positive and significant relationship between fiscal decentralisation – either measured as ratio of provincial governments' expenditures share to total expenditure or provincial governments' expenditure share to total expenditures minus debt payments – and the HDI. This suggests that transferring more power to provinces is likely to decrease poverty and increase the living standards, which is proxied here by the HDI.

Table 8.6: The Determinants of Human Development Index Ranking

Model: GMM IV		
Dependant Variables	**HDI (1)**	**HDI (2)**
Fiscal Decentralisation (Exp) 1	0.0387***	
	(0.012)	
Fiscal Decentralisation (Exp) 2		0.0209***
		(0.006)
Pro-poor Expenditure	0.00104**	0.00171***
	(0.000)	(0.000)
Government Size	0.00127***	0.000440
	(0.000)	(0.000)
Income Share of Bottom 20% of Population	-0.0476***	-0.0428***
	(0.008)	(0.007)
Rule of Law	-0.00454	-0.000993
	(0.022)	(0.022)
Corruption Index	-0.00608	-0.00456
	(0.007)	(0.006)
Devolution Reform Dummy	0.00537	0.00437
	(0.004)	(0.004)
Subsidies	0.00157	0.00147
	(0.000)	(0.000)
Share of Urban Population to total	0.00543***	0.00498***
	(0.002)	(0.001)
Constant	0.530***	0.526***
	(0.112)	(0.112)
N	**34**	**34**
R^2	**0.84**	**0.82**
adj. R^2	**0.80**	**0.79**

Robust Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Variables expressed in logarithm. Variables expressed in logarithm.

Likewise, the index of pro-poor expenditures appears to play a significant role in increasing the HDI. It is important to point out that the index includes education and health expenditures, and the latter variables are two of the three components of the HDI. Therefore, it casts a serious doubt of possible endogeneity. In order to avoid any potential inconsistency in regression results, the GMM-IV technique is used, in which the pro-poor expenditure index is instrumented by its own lag. Obviously, the

HDI is considered as a strong barometer of poverty reduction, and pro-poor expenditures have a major impact on the HDI. Eventually, it supports our previous argument where the pro-poor expenditure index is shown to have a strong influence on poverty reduction.

Another variable worth discussing here is the 'income share of bottom 20% of population' that contains a significant coefficient with negative sign suggesting that income inequality has increased over the time in Pakistan. This understandably has a serious negative impact on the HDI. Similarly, urbanisation has shown to be a crucial predictor of the HDI: urban centres with better civic facilities have much better HDI indicators than rural areas. So our study suggests that greater is the level of urbanisation better would be the HDI indicator. Another point worth noting is the insignificant regressor of the devolution reform dummy. Since this dummy variable accounts for changes in the HDI after 2001 and the HDI has not improved drastically during this period, the coefficient seems to report an insignificant association between the HDI and the dummy variable.

8.4 Fiscal Decentralisation and Poverty Reduction outcomes: Panel Regressions

After looking at the impact of fiscal decentralisation on poverty reduction at country level we further analyse and assess this relationship on provincial level. Given the demographic and ethnic variability and social and economic inequality among the provinces the impact of fiscal decentralisation on each province's poverty profile may be different. For instances, in terms of headcount poverty ratio, the province of KP recorded the highest poverty with 45.7% living below the poverty line followed by Balochistan with 40% poverty. Another important point may be considered is the lowest poverty rate (19.5%) in Sindh province in 2009, instead of the Punjab. However, the standard deviation of poverty (5.811) is the highest in Sindh and lowest in Punjab (3.188) (see table 8.7). This suggests that poverty varies not only among the provinces but it also experiences a great variation within the provinces.

The level of fiscal decentralisation varies across the provinces as well. As it is shown in table B.5 in appendix B, expenditure decentralisation in the Punjab ranges from 5% to 37%, while expenditure shares of Balochistan to total national expenditures is

one to 9% respectively. In terms of revenue decentralisation Balochistan's performance, as expected, is much lower. It contributes from almost zero to merely 2% of total revenue collected nationally. Thus, considering variations in both fiscal decentralisation and poverty among the provinces it warrants having a cross province analysis of the effect of decentralisation on poverty.

Table 8.7 summarises the preliminary statistics for provincial dataset used for panel analysis. Total poverty of all provinces varies from 19.5 to 45.7 with 32.65 average value and 5.52 dispersion. The urban poverty ranges from 13.43 to 37.87 with 26.67 mean and 5.70 standard deviation and rural poverty ranges from 25.88 to 48.1 with 36.64 mean value and 4.59 dispersion. Equally, expenditure decentralisation varies from 0.01 to 0.37 with the average value of 0.087 and 0.069 standard deviation with first measurement. For the second measurement the ratio varies from 0.01 to 0.379 with 0.113 mean and 0.080 standard deviation. Likewise, the ratio of revenue decentralisation when applying first measurement ranges from almost zero to 0.171 with average 0.059 and 0.049 dispersion across the mean. In second measurement the same ratio lies between 0.001 to 0.164 with the standard deviation value of 0.458 and 0.052 mean.

Table 8.7: Summary Statistics (Provinces)

Variable	Obs.	Mean	Std. Dev.	Min	Max
Expenditure Decentralisation (1)	140	0.087414	0.069814	0.01	0.37
Expenditure Decentralisation (2)	140	0.113429	0.080417	0.01	0.379
Infant mortality rate	140	93.6	17.2065	54.9	155
Literacy Rate	140	32.99607	13.64027	9	59
Overall Poverty	140	32.65457	5.524174	19.5	45.7
Overall poverty Gap	140	5.338786	1.186197	3.01	8.81
Overall Severity of Poverty	140	1.440143	0.48389	0.52	2.91
Per Capita GDP	140	4060.793	1311.164	2239	7991
Per capita Own revenue	140	85.5735	102.2172	5.44	778.1
Per capita Subsidies	140	44.31564	35.80982	5.11	184.11
Pro-poor expenditures	140	389.4192	355.0672	20.613	1577.863
Revenue Decentralisation (1)	140	0.059621	0.04947	0.0004	0.171
Revenue Decentralisation (2)	140	0.052529	0.045835	0.001	0.164

Rural Poverty	140	36.64	4.966976	25.88	48.1
Rural Poverty Gap	140	5.885643	1.56932	2.28	9.87
Severity of Poverty, Rural	140	1.645857	0.524171	0.72	3.19
Severity of Poverty, Urban	140	1.315643	0.434735	0.67	2.6
Urban Poverty	140	26.67943	5.707275	13.43	37.87
Urban Poverty Gap	140	4.605571	1.376952	1.6	8.4

8.5 ESTIMATION TECHNIQUES AND REGRESSION RESULTS

For estimations, the FE models and RE models and the GMM-IV approach are used to control for unobserved province specific effects, possible systematic estimation errors and omitted variables bias as well as endogeneity bias, respectively. The outputs of the regressions are presented on tables 8.8 and 8.9 for both on overall poverty as well as rural and urban poverty.

Number of changes has been made in variables' setting for this analysis compare to the simple time series analysis. First, government size variable that proxy the share of public sector expenditure to the GDP is not included. Despite having a thorough research on existing literature on Pakistani economy and consulting various federal and provincial level official documents, we have been unable to find out data for the provincial government's size that would cover our time series. Therefore, cited variable is dropped from the panel analysis. Second, corruption perception index's data is obtained from Transparency International and the International Country Risk Guide. It is provided only on country bases. Yet we should expect not to have corruption data on provincial level. Third, we also drop the rule of law variable due mainly to the non-availability of data on provincial level. The rule of law which is expected to capture quality of governance, prevalence of justice and equal social, economic and political opportunities for both rich and the poor, seems to be irrelevant in redressing the problem of the poor with insignificant coefficient statistics. Thus, while replacing these variables, numerous other important poverty predictors are included in this analysis that not only capture the economic aspect but have a great deal to explain the social dynamics of poverty as has been observed from the literature reviewed in chapters 2 and 5 .

As discussed in chapter 5, poverty has multi-faceted dynamics that includes factors other than economic needs. In order to account for those factors we incorporate adult literacy rate as a control variable. Along with education level, which of course plays a key role in poverty reduction[93], the literacy rate also is expected to capture social awareness and political sagacity that are crucial in reducing poverty indirectly if not directly. In addition to this, healthcare is shown[94] to be an important explanatory variable in poverty regressions so Infant Mortality Rate is included to reflect the level of health services. Another variable included in the analysis is per capita subsidies, provided both by federal and provincial governments. Public economics literature[95] posits that subsidies are given mainly to those sectors that are expected to provide relief to the poor and dispossessed. Per capita revenue collected in respective provinces is also included as one of potential poverty predictors.

The results of the regressions using equation (7.2) are presented in table 8.8. Third column of the table reports the FE and RE models regressions' outcomes in which poverty is regressed on fiscal decentralisation. The coefficient of decentralisation is significant at 5% level and negatively associated with overall poverty. This supports our assumption that decentralising public resources make a positive and considerable impact on poverty reduction. In order to choose between the FF and RE models the Hausman test is conducted for all 6 models shown in table 8.8. As presented underneath of table we have not failed to reject the null hypothesis of no correlation between province unobserved fixed effects and the explanatory variables. The Hausman test that approximately follows a Chi-Square distribution with 10 degree of freedom is less than 1%, suggesting for Fixed Effects estimations for all models.

As noted earlier the possible endogeneity problems cast serious doubt about the consistency and validity of the FEs regression results. In order to obtain consistent and valid regression outcomes, the GMM-IV procedure is applied using appropriate instruments for

[93] See for example Tilak (2007); Hopson and Lee (2011); Rolleston (2011); Gremin and Nakabugo (2012).
[94] For a rigorous discussion on the relationship between poverty and healthcare, please see Diamond and R. Stephenson (2001); ADB (2001); and OECD (2002).
[95] See for example see P. Schultz (2004); López and Galinato (2007)

Table 8.8: The Determinants of Headcount Poverty

Models	FE	RE	FE	RE	FE	RE	FE	RE	FE	RE	FE	RE
	(1)		(2)		(3)		(4)		(5)		(6)	
Dependent Variables	Headcount Poverty, Overall®	Headcount Poverty, Overall®	Headcount Poverty, Overall®	Headcount Poverty, Overall®	Headcount Poverty, Rural®	Headcount Poverty, Rural®	Headcount Poverty, Rural®	Headcount Poverty, Rural®	Headcount Poverty, Urban®	Headcount Poverty, Urban®	Headcount Poverty, Urban®	Headcount Poverty, Urban®
(a)	-0.817**	-0.468*			-0.820**	-0.753*			0.275	-0.249		
	(0.457)	(0.555)			(0.344)	(0.391)			(0.713)	(0.754)		
(b)			-0.921***	-0.665*			-1.045***	-0.946***			-0.399	-0.776
			(0.308)	(0.345)			(0.223)	(0.236)			(0.488)	(0.477)
(c)	-0.868***	-0.268***	-0.861***	-0.247***	-0.632***	-0.245***	-0.574***	-0.199***	-0.689***	-0.210**	-0.72***	-0.200**
	(0.090)	(0.074)	(0.091)	(0.069)	(0.068)	(0.052)	(0.066)	(0.047)	(0.141)	(0.101)	(0.145)	(0.095)
(d)	-0.162***	-0.0401	-0.177***	-0.0518	-0.135***	-0.0503	-0.125***	-0.0489	-0.311***	-0.177**	-0.32***	-0.19***
	(0.044)	(0.051)	(0.042)	(0.048)	(0.033)	(0.036)	(0.030)	(0.033)	(0.068)	(0.069)	(0.066)	(0.067)
(e)	-0.0032***	-0.00446***	-0.00310***	-0.0039***	-0.00319***	-0.00381***	-0.00287***	-0.00338***	-0.0030***	-0.0028***	-0.00***	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
(f)	0.0190***	-0.0000642	0.0190***	0.000223	0.0113***	0.00101	0.0107***	0.000187	0.0131***	-0.00358	0.013***	-0.0036
	(0.003)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.005)	(0.003)	(0.005)	(0.003)
(g)	-0.000119***	-0.000104***	-0.000113***	-0.0001***	-0.000111***	-0.000106***	-0.000104***	-0.000105***	-0.0001***	-0.0000112	-0.00***	-0.0000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
(h)	-0.000361	0.000535*	-0.000405	0.000420	-0.0000915	0.000245	-0.000215	0.000173	-0.00098**	-0.000102	-0.001**	-0.0002
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
(i)	-0.000169	0.000685	-0.000398	0.000688	0.000306	0.000656*	0.000197	0.000810**	0.000588	0.000272	0.00053	0.00038
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
(j)	0.270	0.393			0.830***	0.659***			-0.0571	0.0553		

	(0.295)	(0.322)			(0.222)	(0.227)			(0.461)	(0.437)		
(k)			0.465**	0.415*			0.643***	0.540***			0.193	0.246
			(0.212)	(0.240)			(0.153)	(0.164)			(0.335)	(0.331)
(l)	-0.000278	-0.00111**	-0.0000429	-0.0011***	-0.000554*	-0.000890**	-0.000471	-0.00110***	-0.000911	-0.000684	-0.0009	-0.0008
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
(m)	1.153**	-0.116			0.370	-0.0617			-0.276**	-0.102*		
	(0.469)	(0.502)			(0.354)	(0.353)			(0.733)	(0.681)		
(n)			1.017***	0.0367			0.746***	0.258			-0.709**	-0.435*
			(0.327)	(0.321)			(0.237)	(0.219)			(0.518)	(0.444)
(o)	10.44***	6.176***	10.40***	5.977***	8.842***	6.024***	8.375***	5.653***	8.935***	5.464***	9.193***	5.389***
	(0.669)	(0.564)	(0.679)	(0.521)	(0.504)	(0.397)	(0.491)	(0.355)	(1.045)	(0.765)	(1.073)	(0.719)
(p)	140	140	140	140	140	140	140	140	140	140	140	140
(q)	0.6951	0.5363	0.7042	0.5586	0.7226	0.6325	0.7517	0.6696	0.6655	0.6038	0.6673	0.6076
(r)	0.0468	0.9214	0.0725	0.9338	0.1585	0.9296	0.0275	0.9456	0.0204	0.878	0.068	0.9030
(S)	0.1223	0.6794	0.1119	0.6974	0.4473	0.7344	0.3731	0.7642	0.3590	0.6502	0.3227	0.6582
(t)	25.9 (00.00)	271.2(00.00)	27.05(00.0)	294.9(.00)	29.60(0.00)	353.90(0.00)	34.40(0.00)	414.7(0.00)	22.6(0.00)	237.9(0.00)	22.7(0.00)	246.5(0 0.0)

Robust Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. ® Variables are expressed in log form.

Variable Definitions			
A	Expenditure Decentralisation (1)	b	Expenditure Decentralisation (2)
C	Per Capita GDP	d	Devolution Reform
E	Infant Mortality Rate	f	Literacy Rate
G	Per Capita Pro-poor Expenditures	h	Per Capita Subsidies
I	Per Capita Own Revenues	j	Interaction Term (Decentralisation(1)*Devolution Reform Dummy
K	Interaction Term	l	Interaction Term (Own Revenue*Punjab-

	(Decentralisation(2)*Devolution Reform Dummy		Sindh Dummy Variable)
M	Interaction Term (Decentralisation (1)*Punjab-Sindh Dummy Variable)	n	Interaction Term (Decentralisation (2)*Punjab-Sindh Dummy Variable)
O	Constant Term	p	Number of observations
Q	R- Square with	r	R-Square between
S	R-overall	t	Wald Test (P-value)

Hausman Tests		
First Model	Chi2(10) [P. Value]	116.46 (0.0000)
Second Model	Chi2(10) [P. Value]	106.88 (0.0000)
Third Model	Chi2(10) [P. Value]	72.35(0.0000)
Fourth Model	Chi2(10) [P. Value]	70.41 (0.0000)
Five Model	Chi2(10) [P. Value]	38.42 (0.0000)
Six Model	Chi2(10) [P. Value]	33.74 (0.0002)

potential endogeneity of explanatory variables such as fiscal decentralisation, pro-poor pubic expenditures and others. The insight for using GMM-IV is to minimise the objective function in order to satisfy the moment conditions. It is assumed that the moment condition of ($Z' e$) = 0 is met.

Table 8.9 portraits the results obtained from the estimation of equation (7.2) using GMM-IV techniques. The coefficient of fiscal decentralisation has negative sign and significant at 1% level indicates that less incidence of poverty outcomes are expected with more expending power to provincial governments. In other words, it illustrates that provincial governments are more effective in redistributing public sector resources along with reaching out to the poor compared to the federal government.

We also tested for fiscal decentralisation (2). As shown in table 8.9 the coefficient has negative relationship with poverty reduction outcomes and significant at 5%. Against decentralisation (1), the coefficient of decentralisation (2) is less significant and maintains a lesser magnitude to poverty reduction outcomes. It is noteworthy that the latter measurement of decentralisation gives a higher ratio. That is, fiscal autonomy to provincial governments may not be effective in terms of poverty reduction outcomes after a certain extent.

From column 3 to 6 of table 8.9 we can observe that the coefficient of fiscal decentralisation is significant and positively associated with urban poverty reduction outcomes. However, for rural poverty it maintains its negative relationship. Models 5 and 6 in table 8.9 suggest that fiscal decentralisation has adverse impact in terms of urban poverty outcomes and such outcomes are contrary to our hypothesis (1).

In order to understand why there is a positive relationship between fiscal decentralisation and urban poverty we incorporate an interaction term of fiscal decentralisation and the Punjab and Sindh dummy variable. As shown in columns 5 and 6 the coefficient of fiscal decentralisation is highly significant with negative sign vis-à-vis urban poverty. It shows that in terms of urban poverty reduction decentralisation has contributed only in the Punjab and Sindh (provinces with comparatively better socio-economic infrastructure) rather than overall urban poverty reduction. In other two provinces (Balochistan and KP) decentralisation has not been instrumental in enhancing the income level of urban centres, where urban poverty is still record high. The main reasons for the difference of decentralisation's

effectiveness in urban poverty reduction between bigger and smaller provinces may be that; almost 85% of urban centres, including cosmopolitan cities of Karachi and Lahore, are situated in the Punjab and Sindh, and the these provinces have been more successful in limiting poverty due to better job opportunities and improved civic facilities. On the other hand, main urban cities of Balochistan and KP, like Quetta and Peshawar, have even deteriorated further in terms of socio-economic infrastructure due chiefly to: 1. the huge influx of Afghan refugees from neighbouring Afghanistan during late 1970s and 1980s[96]; 2. being less populated than the former provinces – they could not attract sufficient resources to finance their dwindling social sectors[97]; and 3. the political economy of Pakistani federation gives a weak and inadequate representation to Balochistan and KP in federal setup. Consequently, civil and military bureaucracy's lack of adequate attention towards the social and economic development of these provinces has made urban poverty reduction a difficult task.

As elaborated in chapters 5, there exists a great geographical divide between urban and rural areas. Poverty is more prevalent in rural areas. Any policy that is effective in reducing rural poverty may be considered crucial in terms of reducing the overall incidence of poverty in the country.

It is evident from results of table 8.9 that the coefficient of the devolution reform dummy variable has the expected sign and significant at 1% level. Looking at rural-urban disaggregation level, the coefficient of the devolution reform dummy reveals that the devolution plan has contributed more in reducing urban poverty (columns 5 and 6) than the rural one (columns 3 and 4 of table 8.9).

The coefficient of the IMR, a proxy for healthcare variable, is significant and positively correlated with headcount poverty, suggesting that decreasing mortality rate – that may be considered as sign of improving healthcare condition of people –

[96] After Soviet Union's invasion Afghanistan in 1979, Pakistan with the help of the United States of America and Saudi Arabia, sponsored and supported a war against Soviet presence in Afghanistan (Cohen, 2005). As a result, three millions people fled to Pakistan and took refuge either in Balochistan (near its capital city Quetta) or in KP (also near it capital city Peshawar) (Rashid, 2000).

[97] As discussed in chapter IV, historically the provinces got resources/transfers from federal government through NFC Award based on sole criteria of population and these Provinces (Balochistan and KP) with less population received far lesser resources than the bigger provinces. Subsequently, they remained constrained to finance even those projects that are related to their basic services.

helps in controlling poverty. Nevertheless, the coefficient of same variable is insignificant for urban poverty reduction, albeit it maintains the same positive sign. Mortality in urban areas in Pakistan is much lower than its rural counterpart (See SPDC, 2008 for more details) and slow but steady decline in rural poverty compare to urban area poverty rate is therefore not surprising. On the other hand, rural areas with higher rate of the incidence of poverty as well as IMR in earlier period have experienced a decline in both of the variables over the years. Observing a significant coefficient for rural poverty but insignificant in urban poverty may be expected.

Adult literacy rate's regressor with negative sign is significant at only 10% for overall poverty and rural poverty. However, literacy rate turns out to be strongly significant vis-à-vis urban poverty. Given the definition of literacy used in this study (refer to table 7.1 in chapter 7), it is highly likely that literacy rate would be more effective in urban areas, where it has increased with a much faster rate than in rural ones. Therefore, having a strong relationship between literacy rate and urban poverty reduction should not be surprising. In rural areas of Pakistan the majority of people are directly or indirectly associated with the agriculture sector to extract their livelihood. Given the poor quality of education, being only literate, without any formal skill/training, will hardly make any difference in people's lives and well-being.

The coefficient of the index of pro-poor expenditures is significant at 10% for overall poverty and 1% for rural and urban poverty respectively. Its magnitude is close to zero for all six models - from columns 1 through 6. It may be argued that after excluding two components from the index – healthcare and education due to the reason elucidated above – the variable become less effective in reducing poverty. For instance, other major components of the index include sanitation facilities, welfare programmes and housing and water supply scheme. They may not have instantaneous effects on poverty reduction. Their impact on poverty, however, would come with a time lag.

It is important to note that per capita subsidy is positively associated with overall poverty reduction outcomes and appears to be irrelevant in explaining any variation in overall as well as rural poverty due to its insignificant coefficient. Nonetheless, it becomes inversely related with urban poverty with 5% level of significance. This

indicates that the amount of subsidies allocated to various goods and services providing sectors have not reached to the poor and needy. This happens because the majority of the poor live in rural areas. Any policy incentive that fails to affect the rural poverty may be considered unproductive in terms of scaling down the overall incidence of poverty.

Per capita revenue collected from provinces has positive relationship with poverty reduction outcomes. With significant coefficient at 1% to 10% from model (1) through model (5), it apparently suggests that higher per capita revenue collection in provinces leads to increase poverty rate. But this contradicts our hypothesis (1). In order to investigate the reason for this puzzle we include an interaction term of fiscal decentralisation and a dummy variable that takes 1 for the Punjab and Sindh and zero otherwise to account for these provinces effects.[98] The coefficient of the interaction term of own revenue and Punjab and Sindh dummy is strongly significant with negative sign. It suggests that although revenue decentralisation has a strong explanatory power in reducing poverty, the per capita revenue in Balochistan and KP has not increased over the time.[99] Therefore, overall revenue decentralisation variable indicates a positive relationship with poverty reduction, as we have earlier analysed. As a result, positive and strong effects of these provinces outweigh the overall impact of own revenue and turns its coefficient positive against poverty reduction outcomes.

The expenditure decentralisation has remained higher since 2001, and in the same year the devolution plan was also implemented. So in order to confirm whether the combination of provincial autonomy (expenditure decentralisation) and the devolution to local governments helps in reducing poverty we add an interaction term of decentralisation and devolution reform dummy. As shown in table 8.9, the coefficient of interaction term is significant at 1% for all models except 4 and 5, and maintains a positive association with poverty reduction outcomes. The positive and statistically significant relationship between the interaction term and poverty reduction raises multiple issues. First, it shows the involvement of provincial governments in redistributive policies starts deteriorating and becomes

[98] Punjab and Sindh contribute more that 85% of total revenues collected by provincial governments in Pakistan (Pakistan, various issue).

[99] They not only experienced a static revenue share to total provincial governments' revenue, but due to their increasing population per capita revenue has reduced over time.

counterproductive once decentralisation reaches to a certain limits. This argument is supported by the evidence of fiscal decentralisation literature (Sepulveda, 2010; Sepulveda and Martinez-Vazquez, 2010) in which it is shown that after 33% fiscal decentralisation may have an adverse impact on poverty reduction outcomes. We also introduced a dummy variable for each year to account for time specific effect.

Table 8.9: The Determinants of Headcount Poverty

Model : GMM-IV						
Dependant Variable	**Headcount Ratio©(overall)**	**Headcount Ratio©(overall)**	**Headcount Ratio ©(Rural)**	**Headcount Ratio ©(Rural)**	**Headcount Ratio ©(Urban)**	**Headcount Ratio ©(Urban)**
Fiscal Decentralisation (Exp)1	-0.5645***		-1.054***		2.356***	
	(0.226)		(0.1515)		(0.46807)	
Fiscal Decentralisation (Exp) 2		-0.3569**		-0.655***		1.956)***
		(0.1558)		(0.1135),		(0.33849)
Per Capita GDP©	-0.2215**	-0.2197**	-0.2087***	-0.2081***	-0.0004*	0.0003*
	(0.0949),	(0.09443)	(0.0669)	(0.0675),	(-0.00024)	(-0.00024)
Devolution Reform Dummy	-0.407***	-0.3992***	-0.3050***	-0.2893***	-0.66528***	-0.735***
	(0.1095)	(0.1098),	(0.0934)	,(0.0928),	,(0.1426)	(0.14844),
Infant Mortality Rate	0.0034***	0.0035***	0.00276***	0.00288***	0.004	-0.00017
	(0.00048),	(0.00046)	(0.00034)	(0.00035),	(0.00051)	,(0.00053)
Adult Literacy Rate	-0.00018*	-0.0003)*	-0.0027*	0.00244	-0.0109***	-0.00984***
	(0.0023)	(0.00229)	(0.00155)	(0.0015),	(0.00197)	(0.00214),
Per CapitaPro-poor Exp. ©	-0.00003*	-0.00035*	-0.00071***	-0.0007***	0.0001***	0.0001***
	(0.00002)	(0.0002)	(0.000016)	(0.00016)	(0.00002)	(0.00002)
Subsidies©	0.00026	0.0003	0.000197	0.00027	-0.00063**	-0.0006**
	(0.00023)	(0.00023)	(0.00015)	(0.00016),	,(0.00027)	(0.00027),
Own Revenue©	0.00161**	0.0016***	0.00127***	0.00112***	0.00071*	0.00044
	(0.00046)	,(0.00046)	(0.00036)	,(0.00036)	(0.00037)	(0.00035),
Interaction term(Own Revenue□ *Punjab/Sindh Dummy)	-0.00178***	-0.0018***	-0.00127***	-0.00131***	-0.00088**	-0.00055*
	(0.00035)	(0.00035)	(0.000263)	(0.00026),	,(0.00035)	(0.00036),
Interaction term(FD*Devolution Reform Dummy)	0.93171***	0.7272***	1.144***	0.7698	0.3148	1.0122***
	(0.2098)	(0.18269)	(0.16667)	0.1504	(0.2474)	(0.2435),
Interaction term(FD*Punjab/Sindh Dummy)					-1.533***	-1.9455***
					(0.4139)	(0.4465),
Constant	5.7204***	5.7036***	5.6524***	5.642***	3.5785***	3.6012***
	(0.7244)	(0.721)	(0.5193)	0.522	(0.09131)	(0.0856),
Time Dummies (Y12-Y134)	Included	Included	Included	Included	Included	Included
N	136	136	136	136	136	136
R-squared	0.82	0.82	0.87	0.86	0.87	0.88
Adj R-squared	0.74	0.74	0.81	0.8	0.81	0.82

Robust Standards Errors are in parentheses,. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$,. □ Variable expressed in per capita term. © Variable expressed in Logarithm.

8.6 CONCLUSION

The regression results suggest an overall negative and statistically significant relationship between fiscal decentralisation and poverty reduction. However, the impact of fiscal decentralisation on poverty reduction outcomes is much stronger in the Punjab and Sindh, which indicates that provinces with larger administrative component appear to be more effective for the success of fiscal decentralisation in poverty reduction. Thus, one may conclude that relative impact of fiscal decentralisation in terms of poverty reduction outcomes is far greater in the Punjab and Sindh compare to KP and Balochistan. The results show that fiscal decentralisation has an additional effect on poverty reduction in determining through other explanatory variables such as GDP per capita and pro-poor expenditures.

Based on OLS, FE & RE and GMM-IV analyses, where poverty is proxied by FGT indices and the HDI, it may be argued that fiscal decentralisation and poverty reduction have a statistically strong association. Normally, the association does not change irrespective of the proxy used for poverty as well as econometric specifications. This underlines the fact that if expenditure decentralisation in countries like Pakistan is implemented wisely and adequately it would work as another crucial policy instrument to tackle issues related to poverty. However, one reason for Pakistan's endless difficulties is its present geopolitical structure, which is not based on rational reasoning.[100] Our assertion is that the sub-national/provincial governments due to their proximity and accountability are more responsive to local people's needs. Therefore, the provincial governments can implement programmes more efficiently with better redistributive effects than the central/federal government. Moreover, in Pakistan social services like health and education are constitutionally provincial subjects. Our analyses reveal that the index of pro-poor expenditures appears to be influential in reducing poverty. Thus, devolving more economic power to provincial governments would significantly reduce poverty in provinces.

[100] Critics, like Harrison (1981) and Cohen (2005) among others believe that the nature, construct and structure of Pakistan are such that the system is inherently irrational, with extractive political and economic institutions. Given such an extractive economic and political framework even fiscal decentralisation may not be effective policy tool in poverty reduction.

Albeit, our main focus is to assess the relationship between fiscal decentralisation and poverty reduction outcomes we come across many other findings related to the effects of control variables on the incidence of poverty. For instance, contrary to our proposition, per capita subsidy appears to be irrelevant in affecting the poor. However, the same variable turns to be significant with an expected sign for urban poverty. Given the positive and significant relationship between the interaction term of fiscal decentralisation and the devolution reform dummy variable against poverty we may argue that fiscal decentralisation beyond a certain limit appears to be disadvantageous in terms of poverty reduction. We also observe that the devolution reform has been effective in terms of poverty reduction at provincial level, which suggests that fiscal and administrative empowerment of local governments enhances the scope of fiscal decentralisation regarding essential social services delivery and poverty reductions outcomes.

The results of this chapter indicate that the fiscal decentralisation is instrumental in reducing the overall level of poverty, the poverty gap and severity of poverty. Statistically significant outcomes of fiscal decentralisation against all poverty proxies somehow support our first hypothesis.

Poverty is a multifaceted concept. One way that it can be reduced is by means of fiscal decentralisation. Looking at the potential channels through which fiscal decentralisation policies may be effective in reducing poverty would further strengthen our argument. In following chapter we conduct an empirical inquiry to explore the interaction of both variables through education, health and agriculture. As discussed in chapter 2 these services are considered by the public finance and development economics literature having a strong impact on poverty.

CHAPTER 9

EMPIRICAL RESULTS II: FISCAL DECENTRALISATION AND POVERTY REDUCTION OUTCOMES THROUGH PRO-POOR SECTORS

9.1 INTRODUCTION

This chapter presents empirical findings of 2, 3 and 4 hypotheses[101] on potential channels through which fiscal decentralisation affects poverty. As described earlier, the relationship between fiscal decentralisation and poverty may not be straightforward; rather the former may affect the latter through many different channels. In chapter 2 we have proposed three pro-poor sectors through which this relationship may take place: 1. Basic education; 2. Healthcare; and 3. Agriculture. The first two sectors are expected to have a strong impact by increasing earning opportunity. They also provide a long and healthy live that enables economic agents to earn and invest more. In addition, they make the people empowered in their socio-economic and political issues. The last channel (agriculture) may be considered critical in terms of poverty reduction for a country like Pakistan where the majority of the population dwell in rural areas and depend largely on this sector to extract their livelihood. Bearing this background in mind we conduct an empirical investigation in this chapter to examine the relationship between poverty and fiscal decentralisation through these pro-poor sectors.

In the following we explain some relevant facts and present the descriptive statistics. In the second section we discuss the impact of fiscal decentralisation on basic education. This is followed by an examination of the statistical relationship between decentralisation and healthcare. The fourth section assesses the empirical data on the relationship between fiscal decentralisation and agricultural sector.

[101]These hypotheses are discussed in chapter VII.

Table 9.1 illustrates the summary statistics for overall country as well as provincial dataset used both for time series and panel analyses. Core dependent variables for healthcare outcomes are CDR and IMR. The highest IMR recorded in the country from 1975 to 2009 is 85 per 1000. Standard deviation of the IMR with the value of 27.38 reveals the extent of variation of the variable in Pakistan. For the provinces the highest IMR is 155 per 1000 that is recorded for Balochistan province. The minimum IMR with the value of 54.9 recorded for the Punjab, although very high, but far less than what is found in Balochistan. For education outcomes adult literacy rate is used as a dependent variable. Literacy rate for overall Pakistan in 2009 is 57.5, which is the highest rate since 1975. In provinces 9% lowest literacy rate is recorded, and that is in Balochistan. The agriculture outcomes variables – agriculture value addition and fertilizer consumption – maintain high variations. For example, the standard deviation of agriculture value addition for overall country is 276.37, whereas for provinces the mean deviation is 1153. Likewise, the lowest amount of fertilizer is 0.55 mt, and that is recorded for Balochistan.

The correlation matrix of these variables are supplied in appendix C table C.1. The relationship between fiscal decentralisation and infant mortality rate presents a negative sign, showing that there is a negative relationship between both variables. It indicates that higher level of fiscal decentralisation ratio leads to have low rate of infant mortality. Similarly, as shown in appendix E fiscal decentralisation is positively correlated with literacy rate, a strong indicator of education outcomes. Likewise, the correlation of decentralisation with the agriculture outcomes – per capita agriculture value addition and per capita fertiliser consumption – is positive.

Table 9.1: Summary Statistics of Dependent and Independent Variables

Variables	Obs.	Mean	Std. Dev.	Min	Max
Bottom 20% population share in National Income	35	6.916286	0.558696	6.19	7.88
Corruption Index	35	2.383793	0.217031	2.1	2.91
Crude Birth Rate	35	37.33743	4.847015	29.66	43.2
Crude Death Rate	35	9.551714	1.478659	7.11	12.4
Crude Death Rate	140	8.928571	1.656219	6	12
Crude Death Rate	140	8.928571	1.656219	1.656219	12
Expenditure Decentralisation (1)	35	0.35	0.159023	0.17	0.68
Expenditure Decentralisation (1)	140	0.087414	0.069814	0.01	0.37
Expenditure Decentralisation (2)	35	0.452571	0.165447	0.19	0.7

Expenditure Decentralisation (2)	140	0.113429	0.080417	0.01	0.379
Female secondary School Enrolment (Net)	35	16.57143	7.195937	9	29
Gini-Coefficient	35	0.387429	0.026496	0.35	0.43
Gross Enrolment (female)	140	41.44143	20.88948	8	95
Gross Enrolment (total)	140	57.65714	18.36304	19.6	100
Infant Mortality Rate	35	41.57143	27.38321	1	85
Infant mortality rate	140	93.6	17.2065	54.9	155
Life expectancy at birth	140	57.48714	5.382945	46.6	71
Literacy Rate	35	38.13429	9.749025	24.2	57.5
Literacy Rate	140	32.99607	13.64027	9	59
Per Capita Agri Value Addition	140	1153.267	301.5558	696.95	1948.87
Per Capita Agriculture Value Addition	35	1174.564	276.3712	892.0781	1784.327
Per capita Development exp	140	352.3834	565.849	30.703	3532.475
Per Capita Education Expenditure	140	226.866	171.7984	2.088452	757.1822
Per capita fertilizer consumption	140	13.30037	7.744769	0.5571031	31.3063
per capita health expenditure	140	121.571	112.9628	10.34	468.6
Per Capita Manu value addition	140	619.9968	416.8128	30.64	1605.43
Pro-poor expenditures	35	61.33229	43.35778	4.59	178.07
Pro-poor expenditures	140	389.4192	355.0672	20.613	1577.863
Pupil Teacher Ratio	140	38.34181	9.206662	23.4	65.2
Pupil-teacher Ratio (male)	35	38.22857	5.770542	30	55
Revenue Decentralisation (1)	35	0.190286	0.056333	0.08	0.27
Revenue Decentralisation (1)	140	0.059621	0.04947	0.0004	0.171
Revenue Decentralisation (2)	35	0.158571	0.060203	0.06	0.26
Revenue Decentralisation (2)	140	0.052529	0.045835	0.001	0.164
Trade Openness	35	34.08571	3.090511	28	39
Urban Population (%)	35	31.25714	2.944015	26	37

9.2 THE IMPACT OF FISCAL DECENTRALISATION ON EDUCATION OUTCOMES

In the last two decades basic education has been largely funded and monitored by sub-national/local governments in many developing and developed countries. Decentralising the control and delivery of basic education services has been a debated policy issue among economists[102] and policymakers.[103] Despite broad disagreements on the rationale and process of fiscal decentralisation, a consensus exists on the institutional changes following decentralisation that allows the sub-national governments to finance and manage basic education services more effectively and efficiently than the central government.

[102] See for example, Cheng (1994); Fiszbein (1997); Parry (1997); Blair (2000); Therkildsen (2000); de Oliveira (2002); Shankar and Shah (2003); Nygren (2005); Kristiansen and Pratikno (2006); Faguet and Sanchez (2007); Zhao (2009).
[103] For example UNDP (1993); WB (1995).

This sub-section investigates the impact of fiscal decentralisation on the improvement of education sector in Pakistan. As discussed earlier basic education has remained a provincial subject since the promulgation of the 1973 constitution. Therefore, it is pertinent to assume that increasing the fiscal space of provincial governments will have a positive impact on education. Insufficient allocation resources to education sector happened due to the domination of federal government over the provinces. The federation stands that since basic education is a provincial subject therefore the provinces are solely responsible for not prioritizing the sector in terms of resource allocations. The provincial governments however maintain that due to the inadequate resource transfers from the federal government they are unable to allocate sufficient funds to the basic education.

How fiscal decentralisation has changed or potentially can change the structure of education may be a valid argument. However, this question comes out of the scope of this study so we leave it for future research to tackle this issue. Since we consider basic education as a potential channel through which fiscal decentralisation affects reduction in poverty we limit our empirical investigation to the relationship between basic education and fiscal decentralization.

Table 9.2 presents the regression results of education proxied by adult literacy rate and fiscal decentralisation, measures alternatively as share of provincial governments to total national expenditure (revenue) to total expenditure (revenue) along with other control variables. Results in table 9.2 suggest a statistically significant and positive association between expenditure decentralisation and the literacy rate. They show that transferring expenditure responsibilities to provincial governments would improve basic education. However, the relationship between revenue decentralisation and literacy rate is not only statistically insignificant but it also records a negative coefficient sign. As showed earlier revenue collection responsibility has not been decentralised in Pakistan. Hence, a negative relationship in this case is not surprising. Likewise, the coefficient of pro-poor social service expenditures is strongly significant and positively correlated with the literacy rate: one unit increase in the share of provincial governments' expenditure share leads to a rise in the literacy rate by 0.4% point in first model (1) and 0.99% in second model (2).

Table 9.2: The Determinants of Education Outcomes

Model : OLS		
Dependant Variable	**Adult Literacy Rate**	**Adult Literacy Rate**
	(1)	**(2)**
Fiscal Decentralisation (Expenditure)	0.59***	
	(0.012)	
Fiscal Decentralisation (Revenue)		-0.62
		(0.4)
Per capita Pro-poor Expenditure ®	0.4***	0.99***
	(0.4296)	(0.723)
Pupil-Teacher Ratio	-0.017	-0.016
	(0.0419)	(0.0511)
Per Capita Health Expenditure	0.0415***	0.0375***
	(0.0541)	(0.054)
Interaction term(Fiscal Decentralisation*Corruption Index)	-9.704***	-17.01**
	(3.079)	(7.277)
Interaction term(Fiscal Decentralization*Share of Urban pop to total	21.332**	1.95
	(9.199)	(2.514)
Economic Reform Dummy	2.982***	2.941***
	(1.016)	(1.046)
Constant	15.67***	18.86
	(2.613)	2.44
N	35	35
R-squared	0.98	0.98
Adj R-squared	0.92	0.91

Robust Standard Errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. ®variable expressed in LM test, Breusch-Pagan/cook-weisberg test and Ramsey RESET test are applied and found no evidence of Autocorrelation, Heteroskesdasticity and Omitted Variables biasness.

This inference is supported by empirical literature. Gupta et al. (2002) and Psacharopoulos (1994) show that more expenditure on social services, such as education, is highly likely to enhance economic growth, decrease income inequality and reduce poverty. For example, Psacharopoulos (1994) illustrates how expenditure on basic education is associated with high social rate of return.

Another control variable worth commenting here is pupil-teacher ratio. Smaller ratio is expected to increase the overall education performance, which means instructors with less number of pupils in a class are more likely to have a better interaction with the latter and consequently increase their learning outcomes.

9.2.1 PANEL REGRESSION

Basic education performance varies across provinces and regions in Pakistan. For instance, SPDC's (2009-10) estimates show that total literacy rate in Punjab is 59%: with 50% female literacy and 69% male. Whereas, in Balochistan total literacy rate is recorded as 45%: with 62% male and only 23% female literacy rate.

The relationship between fiscal decentralisation and literacy rate at provincial level is strongly significant and positive. This suggests that different degrees of fiscal decentralisation across provinces do not affect its impact on education outcomes. However, a portrayal of this positive and statistically significant association underlines the fact that poorer provinces like Balochistan and KP with high illiteracy rate since 1990s have made noticeable improvement in their literacy rate thereafter.[104] Therefore, despite fiscal constraints the correlation between decentralisation and literacy rate is strongly significant with a positive coefficient across all provinces. The results presented in table 9.3 indicate that keeping everything else constant, one unit increase in expenditure decentralisation (1 and 2) will increase the literacy rate by 0.82, 0.42, 0.92 and 0.8 points respectively in model 1, 2, 3 and 4. Surprisingly, the devolution dummy variable registers a negative coefficient though insignificant in model 1 and 3. When an interaction term of the devolution reform and Punjab-Sindh dummy is included the relationship becomes positive. However, its predictor remains insignificant. This indicates that from 2001 to 2009 – during which the devolution reform dummy takes the value of 1 – the literacy rate has not increased substantially.

In a nutshell, we may argue that the regression analysis partially confirms our hypothesis (2) that fiscal decentralisation leads to increase the basic education services. These findings are in line with many academic studies regarding the role of education in reducing poverty. For example, Ranis et al. (2000) argue that education increases the human development and the latter in turn enhances productivity, boosts economic growth, reduce income inequality, and reduce poverty.

[104] For example Balochistan has increased its overall literacy rate by 29.3 percentage point from 1990 to 2009 (16.3% in 1990 and 45 % in 2009), whereas, in KP it increased by 26.5 percentage point during the same time period (24 % in 1990 and 50.5 % in 2009) (SPDC, 2009-10).

Table 9.3: The Determinants of Literacy Rate

Model : GMM IV				
Dependent Variables	**Adult Literacy rate**	**Adult Literacy rate**	**Adult Literacy rate**	**Adult Literacy rate**
	(1)	(2)	(3)	(4)
Fiscal Decentralisation (Exp) 1	0.82***	0.42***		
	(0.488)	(0.141)		
Fiscal Decentralisation (Exp) 2			0.92***	0.80***
			(0.084)	(0.770)
Gross Enrolment Rate (primary)	0.181***	0.151***	0.181***	0.158***
	(0.012)	(0.021)	(0.012)	(0.020)
Devolution Reform Dummy	-1.379	-2.836**	-1.291	-3.358**
	(0.932)	(1.285)	(0.932)	(1.352)
GDP Growth©	0.0751***	0.00605***	0.00696***	0.0581***
	(0.00)	(0.00)	(0.00)	(0.00)
Pupil-teacher ratio	0.0301	0.0267	0.0315	0.0211
	(0.028)	(0.021)	(0.026)	(0.021)
Pro-poor Expenditures©	0.0266***	0.0289***	0.0288***	0.0282***
	(0.001)	(0.001)	(0.001)	(0.001)
Interaction term(Fiscal Decentralisation*Devolution Reform Dummy)	0.398	6.732		
	(5.350)	(5.469)		
Interaction term(Fiscal Decentralisation*Devolution Reform Dummy)			3.574	13.29
			(4.107)	(4.362)
Time Dummies		Included		Included
Constant	40.78***	43.48***	40.59***	43.89***
	(1.568)	(2.008)	(1.486)	(2.089)
N	136	136	136	136
R^2	0.856	0.904	0.861	0.902
adj. R^2	0.848	0.864	0.854	0.862

Robust Standard errors are in parentheses Fiscal decentralisation, GDP and Gross Enrollment Rate are instrumented by their first lag; $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$© Variable expressed in per capita term.

Moreover, basic education is also crucial in reducing gender inequality, improving healthcare, and creating social and political awareness, which also are considered as potential channels and means to address poverty

9.3 THE IMPACT OF FISCAL DECENTRALISATION ON HEALTHCARE OUTCOMES

In spite of the theoretical discussion about the role of fiscal decentralisation in improving the healthcare systems, there exists some, but with mixed, empirical evidence of the potential impact of decentralisation on healthcare sector. As Oates (1999) argues that fiscal decentralisation may increase the accountability of policy makers and local representatives to local electorates therefore allows for better matching between peoples' basic needs and social service delivery. Healthcare being

an essential social service is expected to receive much better treatment under provincial/local governments than the federal/central government (Khaleghian, 2004; Uchimura and Jütting, 2009; Jiménez-Rubio, 2010). For instance, in Ecuador, Younger (1999) finds out that public healthcare services are more pro-poor. Likewise, Soto et al. (2012) concludes that fiscal decentralisation has a positive and substantive impact in reducing IMR in Colombia. However, it is equally argued that the local governments have to provide healthcare services within the local institutional context that may characterise market failure and spillover effects, which consequently may discourage the local authorities in health service provisions.[105] Nonetheless, a good amount of literature shows an empirically significant and negative relationship between fiscal decentralisation and IMR.[106] Following the second argument, we propose that fiscal decentralisation is to improve healthcare services in Pakistan - where in fact the health sector is constitutionally a provincial and local matter. However, notwithstanding the recognised advantages of decentralising the policy-making and expenditure authorities of healthcare services to the provinces in Pakistan, there appears no or very limited empirical evidence of the relationship between decentralisation intervention and healthcare services.

Fiscal decentralisation may help in reducing the inequality within the provinces in terms of healthcare and other social services as provincial governments possess more knowledge of their voters' priorities and needs. They can focus better on rural and backward areas to bring them at par to rest of the province. More importantly, since healthcare is identified as a crucial predictor of poverty reduction[107]thereby examining this association would help us in understanding our main issue of correlation between fiscal decentralisation and poverty reduction.

The empirical results of the relationship between healthcare and fiscal decentralisation are reported in table 9.4. Healthcare service is proxied by Crude

[105] For an in-depth discussion on this issue see Foster and Rosnezweig (2001); Enikolopov and Zhuravskaya (2007).

[106] This literature includes Robalino et al. (2001); Habibi et al. (2003); Asfaw et al. (2007); Cantarero and Pascual (2008); Jimenéz-Rubio (2010) who conducted research respectively on Argentina provinces, Canadian Provinces, Spanish Regions, Rural India, and a panel of low and high income countries.

[107] Access to decent healthcare services plays a critical role in reducing poverty in any society. A healthy population can provide healthy work force to the economy who could contribute to economic growth and development a great deal.

Death Rate (CDR) and IMR while fiscal decentralisation is represented by expenditure decentralisation. A negative relationship between fiscal decentralisation and healthcare (IMR and CDR) is expected with a coefficient having a negative sign vis-à-vis the core regressor, the fiscal decentralisation. The results show that the elasticity of CRD with respect to fiscal decentralisation is high and statistically significant at 5%. Broadly speaking, other factors remaining the same one unit increase in the share of provincial expenditure to total expenditure leads to a the reduction of CRD and IMR by 5.29 and 13.47 points respectively.

Table 9.4: The Determinants of Health Outcomes

Model : GMM- IV		
Dependent Variables	**Crude Death Rate**	**Infant Mortality rate**
Female Secondary School enrollment (% Gross)	-0.359***	-0.231
	(0.084)	(0.153)
Fiscal Decentralisation	-5.293**	-13.47**
	(2.448)	(5.860)
Population Per Bed	0.00322***	0.00942***
	(0.001)	(0.003)
Economic Reform Dummy	-2.177***	-0.530
	(0.626)	(1.361)
Interaction term(Fiscal Decentralisation* Rule of Law)	-1.551	-10.04
	(1.994)	(6.801)
Interaction term(Fiscal Decentralisation*Corruption Index)	-1.540*	1.183
	(0.874)	(1.155)
Interaction term(Fiscal Decentralization*Devolution Reform Dummy)	6.361***	6.626**
	(2.016)	(3.292)
Adult Literacy Rate	-0.0417	0.221
	(0.084)	(0.142)
Urban Population (%)	0.152*	-1.176***
	(0.085)	(0.161)
Constant	8.587***	119.0***
	(2.570)	(6.684)
N	34	34
R^2	0.935	0.998
adj. R^2	0.910	0.997

Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The empirical results presented in the table 9.4 show that provincial governments gained an increasing role in the allocation of expenditure in healthcare. However, since the expenditure decentralisation process in Pakistan is depended upon the transfers from the federal government, the overall decentralisation volatility would equally affect the provincial expenditures on healthcare.

9.3.1 Panel Regression

In Pakistan the impact of fiscal decentralisation on socio-economic indicators, including healthcare outcomes varies across provinces and regions. As we noticed in preceding discussions fiscal decentralisation certainly helped in reducing IMR and CDR in Pakistan but whether this reduction is higher in relatively developed provinces than in poorer provinces needs further investigation. Table 9.5 reports the panel regression results on four provinces where healthcare is proxied only by IMR due to the lack of data on CDR on provincial level.

Overall there is a strong and statistically significant positive relationship between decentralisation, measures both as the share of provincial government expenditures to total and share of provincial to total expenditures minus debt serving, and the IMR. This relationship is not only in contrast to our earlier analysis in which fiscal decentralisation is found to reduce the IMR in Pakistan, it also warrants further investigation at provincial level. As discussed earlier Sindh and the Punjab are more developed in terms of all socio-economic indicators in one hand and receive more than two-third of total intergovernmental resource transfers from the federation on the other hand. Equipped with better infrastructure and more financial resources, the Punjab and Sindh are expected to perform much better in terms of reducing the IMR than relatively underdeveloped and resource-scared provinces of KP and Balochistan.

For this purpose an interaction term of fiscal decentralisation and Punjab-Sindh dummy is set up to assess whether decentralisation has different effects on the IMR reduction across provinces or not. As reported in table 9.5, the coefficient of the interaction term is significant at 10% and 5% with negative sign suggesting that fiscal decentralisation has reduced the IMR in Sindh and the Punjab. The results underline that devolving fiscal resources for the provision of basic healthcare services helps reducing the IMR, which is considered in the literature[108] as a good healthcare predictor. In those provinces where infrastructure and administrative machinery is relative developed, decentralisation has a strong impact on healthcare services.

[108] See for example, Uchimura (2009); Jimenez-Rubio (2011); Soto et al (2012).

This outcome supports our argument that fiscal decentralisation improves the allocation efficiency of resources by allowing the sub-national/provincial governments to allocate the funds as per local people basic needs and preferences. Therefore, this resource allocation efficiency makes the basic healthcare services improved. Oates (1972) in his classic public finance theory posts that such kind of efficiency mainly comes due to the heterogeneous nature of localities or regions in the shape of basic needs and preferences. And Pakistan, because of her multiethnic and diverse historical and cultural background of each region easily fits to such definition of heterogeneity. As discussed in chapter 3 and 4, income distribution among provinces and regions is extremely unequal, where Provinces like KP and Balochistan show a persistence occurrence and resurgence of chorionic and other terminal diseases. The same provinces record the highest incidence of poverty as well (as shown in chapter 5). All these socio-economic, cultural, geographic, demographic, political and ethnic differences indicate to some kind of heterogeneity across provinces. Such diversities and heterogeneities support the argument of decentralisation as a policy tool in many countries including Pakistan. Our empirical results substantiate this claim.

Moreover, our empirical results also indicate towards a very crucial point that when the basic healthcare services are decentralised without substantial intergovernmental transfers, it tends to reinforce the poorer provinces hard to finance these services. Consequently, they may even consider slashing the health expenditures down. Given the insufficient transfers from the federal government and inadequate local revenue generation creates a serious resource constraint that hit the KP and Balochistan's social sector hard. This will result in the failure of these provinces to reduce the IMR.

Table 9.5: The Determinants of Infant Mortality Rate[109]

Model: GMM – IV				
Dependant Variable	**Infant Mortality Rate**	**Infant Mortality Rate**	**Infant Mortality Rate**	**Infant Mortality Rate**
	(1)	(2)	(3)	(4)
Fiscal Decentralisation (Exp) 1	4.036***	2.856***		
	(1.316)	(1.074)		
Fiscal Decentralisation (Exp) 2			2.878***	2.873***
			(0.860)	(0.868)
Interaction term(Fiscal Decentralisation*Punjab-Sindh Dummy)	-2.068**	-1.366*	-1.453**	-1.452**
	(0.880)	(0.727)	(0.621)	(0.627)
Gross Enrolment Rate (primary)	-0.00521***	-0.00626***	-0.00535***	-0.00536***
	(0.001)	(0.001)	(0.001)	(0.001)
Devolution Reform Dummy	-0.0384	0.0259	-0.00125	0.00770
	(0.034)	(0.048)	(0.031)	(0.048)
Interaction term(Fiscal Decentralisation*Devolution Reform Dummy)	-1.320***	-0.773**	-0.928***	-0.913***
	(0.409)	(0.325)	(0.262)	(0.257)
Time dummy		Included		Included
Health Expenditure	-0.00690	-0.00429	-0.00392	-0.00366
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	4.670***	4.829***	4.655***	4.656***
	(0.102)	(0.083)	(0.096)	(0.097)
N	136	136	136	136
R^2	0.416	0.553	0.461	0.463
Adj. R^2	0.389	0.484	0.436	0.406

Robust Standard Error are in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$; Variable expressed in per capita terms

Our results also present that primary gross enrollment rate is a powerful predictor of the reduction of the IMR. The coefficient with negative sign is significant at 1% suggests that, holding everything else constant, one% increase in gross enrollment rate leads to decrease the IMR by 0.52%. This result supports the argument of empirical literature (World Bank, 1995) that considers increasing literacy rate is an important determinant in improving social services including healthcare. This conclusion is in line with the previous literature (for example, World Bank, 1995; Younger, 1999; Gupta et al., 2002), which shows that fiscal decentralisation enhances expenditures on health and education. These services have strong positive implications on poverty.

[109] Fiscal decentralization and Gross Enrolment Rate are instrumented by their first lag.

9.3.1 THE IMPACT OF FISCAL DECENTRALISATION ON AGRICULTURE OUTCOMES

Agricultural sector remains the core component of the economy of Pakistan. It contributes around 20% to the GDP and employs 45% of total workforce of the country (Pakistan, 2010 -11). In the same way, agriculture occupies a central place in poverty reduction as two-third of total poor in Pakistan lives in rural areas, and around 75% of them extract their livelihood from this sector in one way or another (Zaidi, 2006; FBS, 2010-11). Naturally, any policy mechanism that aims to increase the productivity and overall performance of agriculture seems to play a critical role in reducing poverty.

Responsibility for agriculture, like basic education and healthcare, constitutionally also falls within the realm of provincial governments in Pakistan. Thus, agriculture that is the foundation of local people's economy is expected to be prioritised with fiscal decentralisation. Given this, it may be hypothesised that fiscal decentralisation provides more fiscal space to provincial governments and empowers the local communities through their elected representatives who may prioritise the resource allocation to promote agriculture related activities. This helps reducing poverty in the rural areas. Considering this, we empirically investigate the relationship between fiscal decentralisation and poverty reduction through agriculture sector. Agriculture is proxied alternatively by per capita agriculture value-addition and per capita fertilizer consumption. These variables capture the quality and quantity of agriculture production on annual basis. Value addition accounts for improvement, efficiency and productivity in agriculture sector. The fertilizer consumption shows the enlargement and extension of the sector. Other variables included in the analysis are mechanisation of agriculture sector – proxied by agriculture machinery -, the index of pro-poor expenditures, trade openness, and inflation rate – proxied by the CPI, quality of governance – captured by the rule of law– corruption index and the devolution reform dummy.

Table 9.6: The Determinants Agriculture Outcomes

Model : GMM IV		
Dependant Variable	**Agriculture Value Added‡**	**Fertilizer Consumption ‡**
	(1)	**(2)**
Fiscal Decentralisation	1452.6***	6827.8***
	(546.533)	(2493.284)
Agricultural machinery	2.386***	16.21***
	(0.374)	(1.716)
Pro-poor expenditures ‡	2.873***	2.948
	(0.835)	(3.056)
Trade Openness	-14.02***	-36.97***
	(2.631)	(11.174)
Interaction term(Fiscal Decentralisation*Devolution Reform Dummy)	237.5***	135.6
	(65.270)	(330.952)
Interaction term(Fiscal Decentralisation* Rule of Law)	1153.2***	4784.6**
	(396.296)	(1951.797)
Consumer Price Index	4.402**	-9.305
	(1.725)	(8.087)
Devolution Reform Dummy	-50.49*	250.6**
	(28.625)	(98.269)
Interaction term(Fiscal Decentralisation* Corruption Index)	-138.5	-1371.5***
	(124.347)	(523.555)
Constant	1011.4***	1226.6***
	(78.386)	(293.454)
N	34	34
R^2	0.981	0.982
adj. R^2	0.974	0.975

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ Agricultural machinery is instrumented by its one lag‡ Variables expressed in per capita term

Regressions results are reported in table 9.6 suggest that fiscal decentralisation has a positive and statistically significant and positive impact on agriculture. This happens because fiscal decentralisation may assist in empowering the local people use the available knowledge in an efficient way. Local representatives due to their proximity to local areas and people can effectively monitor the resource utilszation in agriculture sector. The results reveal a strongly significant (significant at 1%) coefficient of fiscal decentralisation with positive sign with consumption of fertilizer. This uncovers that fiscal decentralisation not only facilitates productivity but also plays a crucial role in terms of expansion of agricultural sector.

Another important result worth considering is the negative association of free trade and competitiveness with agriculture sector. It was assumed that opening the sector to the outside competitors would facilitate trade and hence assist the local farmers to

sell their products in international market. But the openness to world economy has had an opposite effect. The negative relationship is caused by two factors. First, the agriculture sector in Pakistan lags far behind other countries. This in turn is one of the causes of high costs and low productivity in this sector. Second, the sector is constantly plagued by the shortage of electricity and dysfunctional infrastructure. These and several other reasons show the trade openness is detrimental to the productivity and expansion of the sector.

Compounded these problems are the rule of law, quality of governance and corruption. Better quality of governance or low level of corruption has significant impact on the outputs in this sector. In the first model of table 9.6 we have the coefficient of corruption variable, which is insignificant although shows a negative sign. It illustrates that provincial governments play a better and more active role in monitoring the resource allocation to the sector. The accountability, transparency and the involvement of local people in agricultural service provision, in turn, discourages bureaucratic and other leakages, and enhances and promotes efficiency. Likewise, the coefficient of the CPI is significant at 1% with positive sign in relation to adding value to total output. This suggests that as a result of increasing in prices of agricultural commodities, the income level in rural areas has enhanced. This as a result enables the farmers to incorporate more machinery and other important inputs to increase the quantity as well as the productivity of their land.

Indeed our empirical analysis reveals a statistically significant association between fiscal decentralisation and higher productivity in agriculture sector. Higher productivity in turn means pulling out more people out of the circle of poverty. However, this relationship warrants greater investigation as agriculture primarily is limited to the Punjab and Sindh. Balochistan and KP, on the contrary, with high mountains, rough terrains and water scarcity make relatively insignificant contribution towards total agricultural production. With this fact in mind, decentralisation is expected to have a different affect on agriculture sector in the Punjab and Sindh than to Balochistan and KP. For this reason, we conduct a panel regression to explore the relationship between fiscal decentralisation and its impact on agriculture sector at provincial level.

9.3.2 PANEL REGRESSION

Table 9.7 illustrates the panel regression results. The agricultural output that is proxied alternatively by per worker agriculture value addiction is regressed on expenditure decentralisation and numerous other variables. As first row of the results reveal the coefficient of fiscal decentralisation is insignificant and negatively correlated with the output in the agriculture sector. The same negative sign maintains to fertiliser consumption as well, though it becomes significant at 5% when the year dummies are included in model 3. However, to agriculture value addition the inclusion of the time dummy does not improve the level of significance. These results lead us to include an interaction term of fiscal decentralisation and Punjab-Sindh dummy in order to investigate why panel regressions produce different outcomes from the ones that we obtained in simple time series analysis for over all Pakistan. The coefficient of interaction term is strongly significant with positive sign. It demonstrates that fiscal decentralisation is only instrumental in increasing agricultural output in Sindh and the Punjab. In Balochistan and KP fiscal decentralisation does not change the agriculture output. This may explain the fact that in Balochistan and KP the agriculture sector is not as important a factor in shaping the provincial economies as it is in Sindh and the Punjab. Agriculture sector has failed to attract considerable attention in former provinces (KP and Balochistan) in terms of resource allocation and investment. On the contrary, in the Punjab and Sindh, the agriculture outcomes have registered a mark improvement with fiscal decentralisation which highlights the critical and crucial role of the sector in defining the provincial economy by providing livelihood to the majority of rural communities directly and indirectly.

Although fiscal decentralisation does not seem to make any improvement in agriculture outcomes in all provinces, however, it shows a good response in terms of increasing the productivity and extension of agriculture in Sindh and the Punjab. One can deduce two conclusions from this relation. First, in latter provinces where more than 78% of total population dwells (FBS, 2009-10) fiscal decentralisation proved to be an effective tool in enhancing the agricultural output. This also tells us the level of responsiveness of local representatives to their local communities.

Table 9.7: The Determinants of Agriculture Outcomes

Model : GMM IV				
Dependant Variables	**Agriculture value addition**	**Agriculture value addition**	**Fertilizer Consumption**	**Fertilizer Consumption**
	(1)	(2)	(3)	(4)
Fiscal Decentralisation	-1495.0	-2711.9	-4882.7**	-515.4
	(995.925)	(1705.612)	(2109.056)	(4552.373)
Development Expenditure	0.133*	0.469***	-0.136*	-0.124*
	(0.072)	(0.122)	(0.077)	(0.070)
Devolution Reform	396.0***	169.3**	96.50	46.24
	(135.355)	(85.782)	(275.635)	(110.735)
Interaction term(FD*Punjab/Sindh Dummy)	2660.4***	3550.9***	8840.4***	6008.2**
	(677.288)	(1224.155)	(1440.303)	(2879.448)
Interaction term(FD*DF)	-628.5	316.4	2660.3***	1616.9
	(392.718)	(492.208)	(940.300)	(1551.628)
Constant	1198.0***	945.2***	374.3	196.1
	(91.872)	(54.619)	(239.220)	(180.028)
Time Dummy	Included	Not included	Included	Not included
N	136	136	136	136
R^2	0.837	0.608	0.767	0.703
adj. R^2	0.775	0.593	0.678	0.692

Robust standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, Variable expressed in per capita term

Due to their overwhelming dependence on this sector for livelihood, the local communities may demand their representatives to respond effectively by allocating more resources to the sector. In this way the sector can be monitored and improved more effectively. Second, it may illustrate that agriculture value addition is lower in Balochistan and KP compare to other provinces, where farming still lacks mechanization and proper use of fertilisers and pesticides. Consequently, the fiscal decentralisation appears to be unresponsive to agriculture outcomes in these provinces. It also underlines the fact that because of the lack of cultivable lands and scarcity of water, agricultural farming is hard to undertake in KP and Balochistan. Given the relatively weak importance of agriculture sector to the livelihood of local communities they may not demand their representatives to prioritise the sector in terms of resource allocation and investment.

9.4 CONCLUSION

The results partially substantiate our hypotheses (hypotheses: 2, 3 and 4) relative to the impact of fiscal decentralisation and its impact on basic health care, education and agriculture. Fiscal decentralisation may improve basic health care service. In addition, we find the effect of fiscal decentralisation on health outcomes to be weaker for Balochistan and KP compared to other provinces, which in other words indicates that fiscal decentralisation is more an effective policy tool in terms of pro-poor social service delivery in the Punjab and Sindh. The findings suggest that good quality of governance (i.e., using corruption index and the degree of civil liberty) has a positive impact on basic health care.

For education, overall, our findings support our hypothesis that fiscal decentralisation improves education. These findings have some implications for poverty reduction that is directly or indirectly related to education. Indeed, education, especially basic education, has proven to help reduce poverty. Improvement in the quality of human capital enhances productivity, broadens employment opportunities, increases growth and income levels of the poor (Psacharopolous and Woodhall 1985; Ranis et al. 2000).

The results suggest that fiscal decentralisation has a statistically significant effect on productivity in agricultural sector. It happens because fiscal decentralisation facilitates the use of local knowledge, local participation and interest. The relationship, however, is non-linear. In particular, fiscal decentralisation improves the agriculture value added per worker up to a threshold beyond which more fiscal decentralisation may reduce agricultural productivity. Thus we can conclude that, for the third pro-poor channel – agriculture sector – our empirical results suggest a positive and statistically significant relationship between decentralisation and agricultural output. Decentralisation has the potential to enhance transparency and accountability in the delivery of agricultural services.

In current and preceding chapters it is shown that fiscal decentralisation from federal government to provincial governments maintains a positive impact on poverty reduction both directly and indirectly through certain pro-poor sectors. In the following part, that contains one comprehensive chapter, we look at the devolution to

third tier (local) governments and analyse its effectiveness in services delivery to local people in general and the poor in particular.

PART IV

DOES DEVOLUTION INCREASE RESPONSIVENESS TO LOCAL NEEDS IN PAKISTAN?

CHAPTER 10

DEVOLUTION REFORMS IN PAKISTAN: HOW EFFECTIVE THE LOCALGOVERNMENTS ARE IN SOCIAL SERVICE DELIVERY

10.1 INTRODUCTION

This chapter examines the devolution reforms launched in Pakistan since 2001. These reforms paved the way for limited political, financial and administrative powers being transferred to local governments. Second section of the chapter provides a historical overview of the development of local governments and their evolution in Pakistan. The third and fourth sections discuss the devolution plan and the key question of why decentralisation is revived only during the military regimes, the political economy of the devolution reforms. Sections five and six of the chapter deal with the question of social services provision and coverage of Multiple Deprivation at province level in pre and post devolution reforms. Section seven provides some stylized facts in comparative manner regarding the investments on some key social and economic services and see whether or not the devolution has changed the pattern, trend and magnitude of investments in these services. Section eight explains the methodology of empirical analysis. Section nine deals with the major objective of the devolution plan: whether or not (if yes, how) the devolution reforms policy has improved social service delivery and reduced poverty. Section ten concludes.

After the devolution the responsibility of social services delivery has shifted to the local governments from the provincial governments. Presumably, the local governments because of their proximity and accountability to local people are more

efficient and effective in increasing those services that should benefit the local community particularly the poor and disadvantaged social groups.

The devolution reforms brought a large scale change in governance and public finance of Pakistan where numerous important social and economic services have been devolved to local governments. Such a drastic change is expected to bring a widespread transformation in nature, extent and magnitude of essential social and economic services delivery to common people. Nonetheless, in spite of the importance of the matter, to best of our knowledge, literature has not provided a systematic research to evaluate the efficacy of the devolution in critical services provision. This chapter is aimed to fill this gap in the literature.

In order to test and statistically examine how effective the local governments have worked, a systemic empirical method is employed by using a panel dataset from four provinces of Pakistan. Various regression techniques such as the standard OLS, FE and RE models, and the Tobit models are applied and regression results are reported and analysed in section nine of this chapter. The regression outcomes show that after the devolution when these social and economic services have come under the responsibility of local governments, their provisions have been augmented and improved.

10.2 HISTORICAL BACKGROUND OF LOCAL GOVERNMENT SYSTEM OF PAKISTAN

The local government system was first introduced in the Sub-Continent in 19th century by the British India government aimed primarily to facilitate the well-being of the local elites. The local government under the British *Raj* was not empowered, as it was not democratically elected. Instead the representatives of the local governments were nominated by the central bureaucracy (Nath, 1929; Venkatarangaiya and Pattabhiram 1969). The system was run through an extreme 'top-down manner' with circumscribed functions of local representatives. The key administrative role at the local level was performed by the agents of the central bureaucracy, the Deputy Commissioner, and other bureaucratic operatives, such as the Assistant Commissioner, *Tehsildars, Naibdehsildars and Patwaris* (Tinker,

1968; AERC[110], 1990). It is important to highlight that the newly introduced local government system was not absolutely new but a reformed version of ancient *panchayat*. The municipal administration however was an addition that was entirely new to Indian local polity.

Prior to the British rule in India, the people had their local system of governance in the shape of village *panchayats*, similar to the administrative system of later form of local government (Hussain, 2003). The *panchayats* were the self-governing bodies that were organised and run by the local people. Therefore, when Britain first introduced the formal local bodies system in India, it reflected the administrative structure of the centuries old *panchayat* system. The local government system though was different from the pure western democratic setup, in as much as it was an active body of representation to manage the local people issues, including development, administrative and judicial, as per the wishes and needs of the local communities. It was largely geared to the needs of British Indian government in terms of buying favours from local elites. But more importantly it laid-down a democratic system that later evolved to become more mature and inclusive.

It is worth pointing out that during late 19th and early 20th centuries the provincial level, rather than local level, was the focus of Indian nationalist politics. This, therefore, led the British government granting more provincial autonomy rather than strengthening the local governments (Cheema et al., 2005). The greater importance and concentration of regional and provincial governments against local governments created a wide urban-rural divide in terms of social, economic and political development that consequently impeded the evolution of local government system (Rizvi, 1976).

The urban councils were expected to provide basic social services to the urbanities. The rural council on the other hand were typically used as a vehicle to patronage the rural elite through the deconcentrated agents of the central government, accompanying local elites. This phenomenon, therefore, limited the already dysfunctional rural governments' role in essential service provisions (van den Dungen, 1972; Siddiqui, 1992).

[110] Applied Economics and Research Centre (AERC) is researched-based centre in the University of Karachi, Pakistan.

It is true that the local government systems existed and flourished to a large extent during the colonial period. Nevertheless, imperial bureaucracy with the collaboration of native elite played a strong role in engineering local affairs, making it conducive for the British *Raj* to govern unabated. In addition, the rise of the nationalist politics on central and regional realm led to shift the focus away from the local polity. Therefore, local governments remained at the periphery throughout the British rule in India.

10.2.1 POST INDEPENDENCE (1947 TO 2001)

After the division of India on 14th August, 1947 the new state of Pakistan with numerous social and economic problems such as a dysfunctional economy, primitive agriculture, communal tensions and massive influx of refugees necessitated the country to adopt strong central governance system. This state of affairs later on cemented the tendency towards a strong central government at the expense of sub-national governments. Hence, during late 1940s and entire 1950s an ever increasing centralisation gave birth to a powerful military bureaucracy that diluted the already limited sub-national governments (Waseem, 1994; Jalal, 1995; Talbot, 1998).

In 1959 the military regime of Ayub Khan (re)introduced the local governments after the dissolution of both central and provincial level governments. The new local government system was established under the laws of: 1. Basic Democracies Order (BDO) in 1959; and 2. Municipal Administration Order in 1960, to provide representation to rural and urban areas respectively. Under the new system union council was the lowest tier of local governments comprising elected members who then elected one of their members as the chairman of the council. However, in higher tiers, municipal administration and district council for example, the central government nominated some of its officials as members who normally became the chairmen of these bodies (Siddiqui, 1992; Wajidi, 2000).

Similar to pre-partition style, local bodies system of Ayub era was overwhelmingly controlled by the central bureaucracy through its appointed officials at the local level who had the discretionary power to restrict any kind of action the elected representatives might desire to pass or implement. Furthermore, given the limited or no financial capacity the local governments were even unable to perform those few regulatory and development functions assigned to them by the central bureaucracy.

Akin to the British rule, Ayub regime in order to garner and maintain the support of local elites – considering the vital role of rural representatives in forming the electoral college of allegedly manipulated presidential election[111] as well as for the members of national and provincial assemblies – substantially increased the *targeted* resources to the rural local elites that led to reverse the development resource allocation in the favour of the latter. This was in direct contrast to the general trend of 1950s[112] (Amjad and Ahmed, 1984). However, whereas the prime aim of resource allocation was not to encourage social and economic development in rural areas but to buy political support of the rural elites, consequently, the funds were not utilised for the welfare of the masses.

In the aftermath of the breakup in 1971 when the east wing resultantly drifted away and became Bangladesh, the remainder of Pakistan subsequently embraced her first ever democratically elected government that promulgated the 1973 constitution.[113] Nevertheless, during the democratic dispensation (1971-77) in the presence of functional national and provincial assemblies local governments were pushed to the background and again became dysfunctional.

With the arrival of the military dictatorial regime again in 1979, the local government system was revived with the political and administrative structure similar to the 1960s of over centralisation of administrative and economic power at the provincial and federal levels. The new Local Government Ordinance was promulgated simultaneously in 1979 from Punjab, Sindh and KP, while in Balochistan the same ordinance was implemented in 1980. Under the new system four levels of governments: town committees, municipal corporation and city/metropolitan corporation – became functional in urban areas, while in rural areas three levels of governments; union council, *tehsil* council and district council, were formed.

Similar to 1960s, the local government system in 1980s was used by the military regime to legitimise its hold on power, instead of true financial and administrative decentralisation to the local governments from the federal and provincial

[111] See Cohen (2005).
[112] During 1950s the urban centres remained the centre of economic and social development at cost of rural areas.
[113] The constitution was passed and implemented despite the fact that majority members – three of out five – from Balochistan province did not sign it (Breeseg, 2004).

governments ((Jalal, 1995; Cheema and Mohmand, 2003). However, despite many similarities in spirit the 1980s local bodies system maintained differences to 1960s system on many grounds. For instance, the former abolished the direct nomination of the officials from the bureaucracy as the members and chairman of the local governments. Instead, in the new system it was mandatory for all members of local councils, including the chairmen, to be elected through adult franchise (Cheema et al., 2005).

General Zia-ul-Haq continued the old system of rural-urban divide of the colonial and Ayub's periods. Noman (1988) and Hasan (2002) suggest that Zia regime sought to accommodate urban middle class, because it was believed that the latter class formed a strong movement and supported the army in toppling the Z.A Bhutto government. Hence patronising the same class was thought to cement not only the anti-Bhutto sentiment in urban areas but with same token gather much support for Zia himself. On the contrary, the rural areas were considered to be the political support base for the Z.A Bhutto regime. Thus, rural local councils were deprived of getting sufficient resources to run even the basic local functions (Wilder, 1999).

It is interesting to note that with the death of Zia-ul-Haq and subsequently with the advent of democracy in 1988 after party-based general elections for both federal and provincial governments, the local governments were dispensed with. They were dissolved in the Punjab, Sindh and KP on 1993, 1992 and 1991 respectively (based on multiple factual or otherwise charges). For instances, in the Punjab provincial government rolled back the local government system to curb the influence of incumbent elected local representatives in general elections that were scheduled in 1993. In KP and Sindh corruption and mismanagement of the public resources were cited as the main reason for its dissolution (Zaidi, 2005).

Historical evidence suggests that the provincial governments in the country have never been comfortable with local governments. Whenever the former found a room to dispense with the latter it exactly did the same. It is believed that the reason for the tension between the local and provincial governments has largely been due to the encroachment of the federal government into the constitutional domain of provincial governments (World Bank, 1996; 2000). The provinces then clung onto whatever limited administrative, fiscal and political power left to them and unwilling to

relinquish power to the local bodies. This resultantly culminated into serious problems related to functional responsibilities of provinces and local bodies.

After the 1999 military coups d'état, the local government system was once again reinstated but this time with entirely different structure, functions and responsibilities under the auspices of the devolution plan of 2000-01. In the following section an attempt has been made to provide an overview of the various aspects and characteristics of the devolution plan introduced and implemented by yet another military regime in 2000 and 2001, respectively

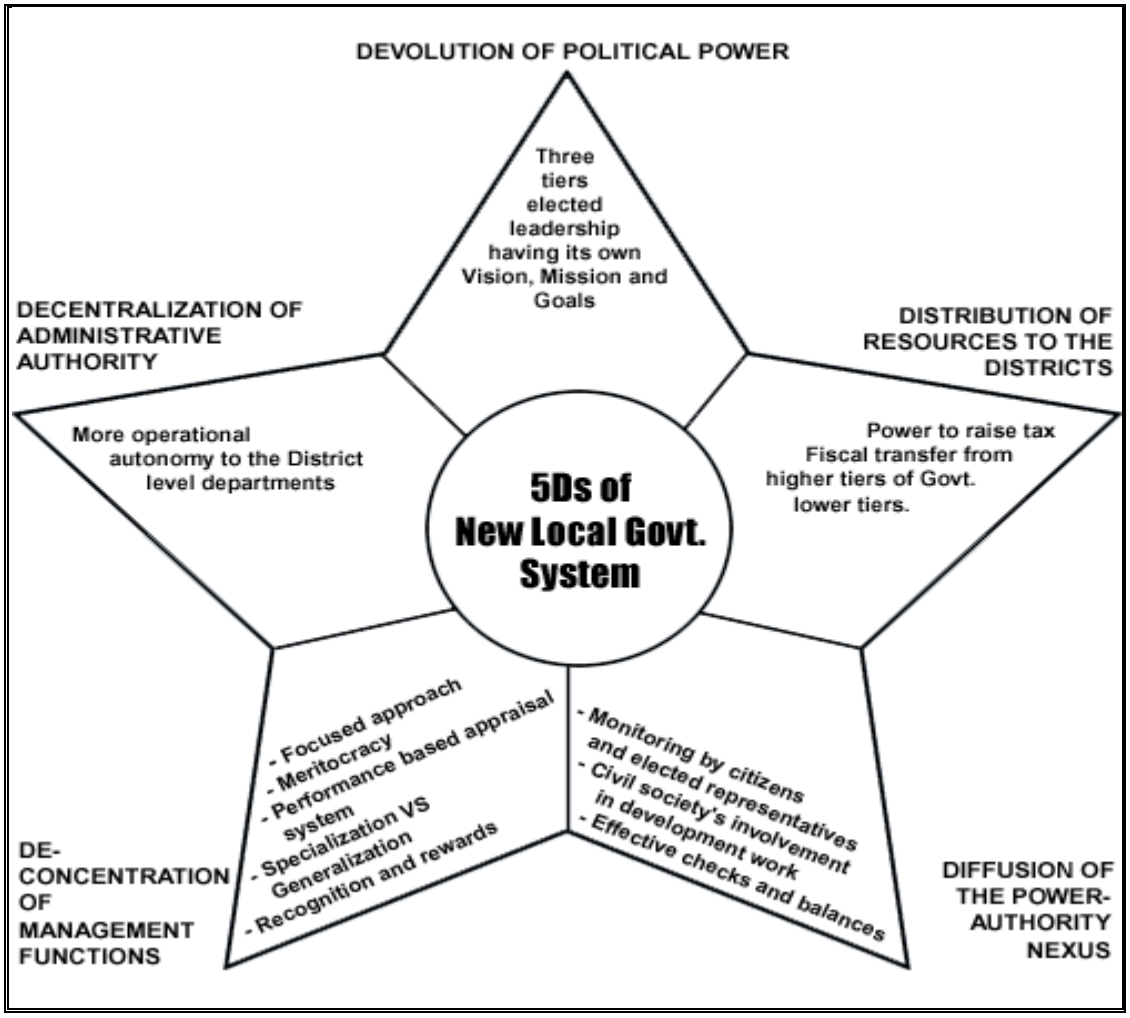
10.3 THE DEVOLUTION PLAN

This section presents a concise stylised description of the current devolution reforms or "Devolution of Power" introduced by yet another military government in Pakistan in 2000-01. The Devolution Plan introduced a devolved local government or in other words the District Government Structure, which is an integrated three-tier system of governance. As we will see later in this chapter, the devolution reform has brought many positive changes to the political economy structure of Pakistan, it is important to note that this system is still not a part of the constitution. On paper at least, the major departure took place in the structure of political economy through the devolution reform. Albeit for the first time the administrative and expenditures responsibilities were devolved to the local level. However, the devolution process took place under the tight grip of military regime, and at the time there existed neither provincial nor provincial elected governments. Therefore, despite the success (or failure, that we will discuss during the course of this chapter) the political legitimacy of the devolution reform has been controversial and questionable However, despite the criticism of the political legitimacy – that the devolution reform was initiated by the military and establishment to consolidate their power bypassing the federating units – it substantially changed the administrative and fiscal structure of the government. In the following we discuss the salient features of the devolution plan.

The District Government system runs through three integrated tiers of district/city district government system, with the apparent aims of serving the interest and safeguarding the rights of the local people as well as to refocus and narrow-down, if

not completely abolish, the rural-urban divide. The NRB specifies the new local government model through"5Ds", which are presented in figure 10.1.

Figure 10.1: 5Ds Local Government System



Source: NRB, Government of Pakistan

The salient features of the Devolution Plan are discussed below:

1- The goal of the local governments is to entrust the representative role to the people's elected members, who come through an electoral process. Moreover, it seeks to empower the traditionally voiceless, particularly women, workers, peasants and minorities at the lowest level of government tier so that they can bring socio-economic change through their locally elected representatives. Thus, the devolution of political power typically aims to preserve the political rights of local people and protect them from being re-centralised by both federal and provincial governments.

2- Second pillar of new local government system is the decentralisation/devolution of administrative authority, which seeks to address the local communities' problems at their door-steps.

3- While many of management and administrative functions may not completely be devolved, a great part of it may be to repose the local governments through de-concentration of management functions in order to reduce the concentration of authority to the upper tier of government(s). In the previous setup the Deputy Commissioner who happened to be the administrative head of the district performed co-ordination for fiscal (revenue collection) and magisterial functions and was answerable to the authorities at either provincial or federal level. However, in post devolution reform, the district is not headed only by an elected nazim (see below for more discussion on the procedure of nazim's election) but various functions are also distributed between offices and make them accountable to the elected members so as to strengthen the checks and balance system.

4- In order to weaken, if not permanently eliminate, any kind of potential elite capture that may exist due to possible projection of strong power-authority nexus, the new local government system has incorporated numerous measures to counter such risks. Prominent among them are: Public Safety Commission (PSC), Citizen Community Boards (CCBs) and *Zila Mohtasib*, which are meant to resist any kind of corruption activity or power abuse exercised either by elected representatives or public officials.

5- The fifth and perhaps the most vital segment of new system is the distribution of financial resources. Moves towards financial empowerment, the local councils now have the authority to impose taxes in addition to *interalia* taxes that were already in local governments' discretion and the inter-governmental transfers and grants from the federal and provincial governments.[114] Unlike the inter-governmental transfer between federal and provincial governments, the transfer from provinces to local governments has been made formula-based that makes the mechanism more transparent, equitable and non-discretionary. Furthermore, it is spelled out in the ordinance that the upper tier of government (be it provincial or federal) does not assign any

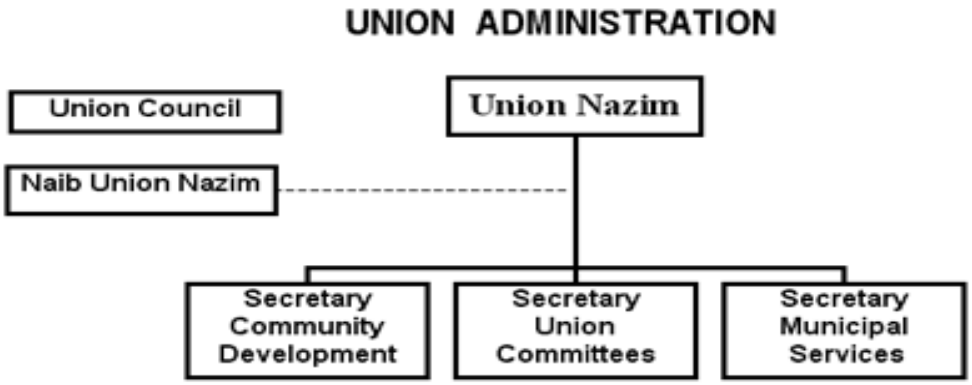
[114] It is to be noted that majority of inter-governmental resources are transferred from the provincial governments under the Provincial Finance Commission.

administrative or service delivery functions to the local government without accompanying it with adequate finances.

10.3.1 LOCAL GOVERNMENT STRUCTURE

The administrative hierarchy of the new local government system is based on the union council, the *tehsil* council and the district council. The union council is the lowest tier and the district council is the upper and more important tier of the system. The union council has a body of elected representatives with Union *Nazim* as the head. The Union *Nazim is* assisted by Union *Naib Nazim.* The latter is elected on joined ticket with The Union *Nazim*. The *Nazim* is responsible for making the Annual Development Plan and other required budget and sets the developmental priorities with the consultation of the council members. In case the required resources are beyond the budgetary capacity of the union council the *Nazim* sends the proposals to Tehsil Municipal Administration (TMA) and district council for approval and inclusion in district budget. The union council with 21 members is elected on non-party basis and comprises several sub-towns, villages and small villages with the average population of around 25,000 members (Zaidi, 2005). Figure 10.2 provides a snapshot of the union council administration:

Figure 10.2: Structure of Union Administration

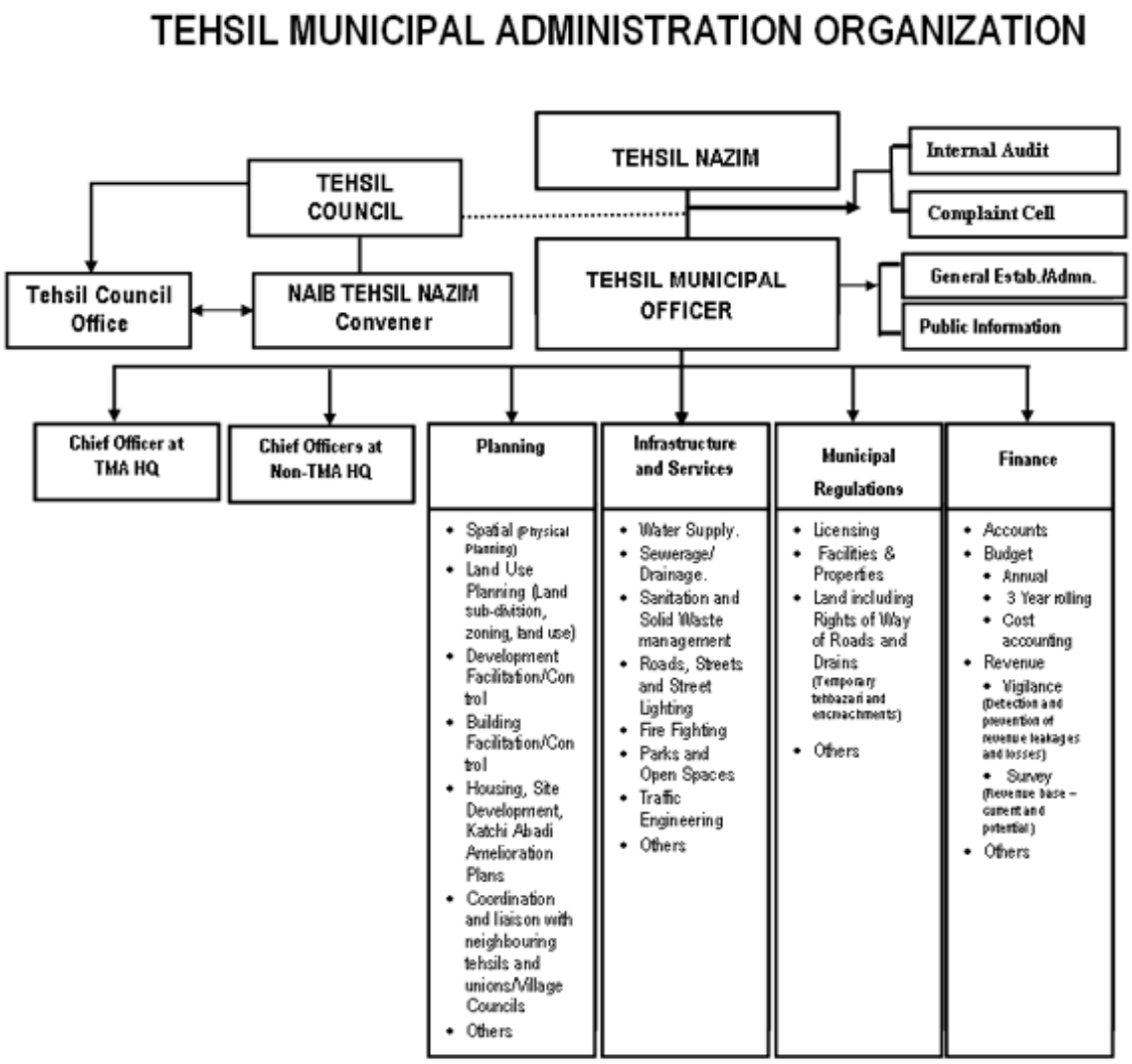


Source: NRB, Government of Pakistan

Tehsil council is the middle tier of the local government system in which all union councils *Nazims* become part of it. The council is headed by the *tehsil Nazim* who is indirectly elected by the electoral college of union councils' members who in turn are elected through direct elections. The *tehsil* council is consisted of Union *Naib*

Nazim and one-third of the indirectly elected representatives from workers, peasants, women and minorities. The *tehsil Nazim* is the head of the *tehsil* council, who is assisted by numbers of officials, including *tehsil* officers. Figure 10.3 summarises the administrative structure of the *tehsil* council, where the local bureaucracy is integrated with the locally elected representatives to run the business of the government.

Figure 10.3: Governance Structure of the *Tehsil* Municipal Administration

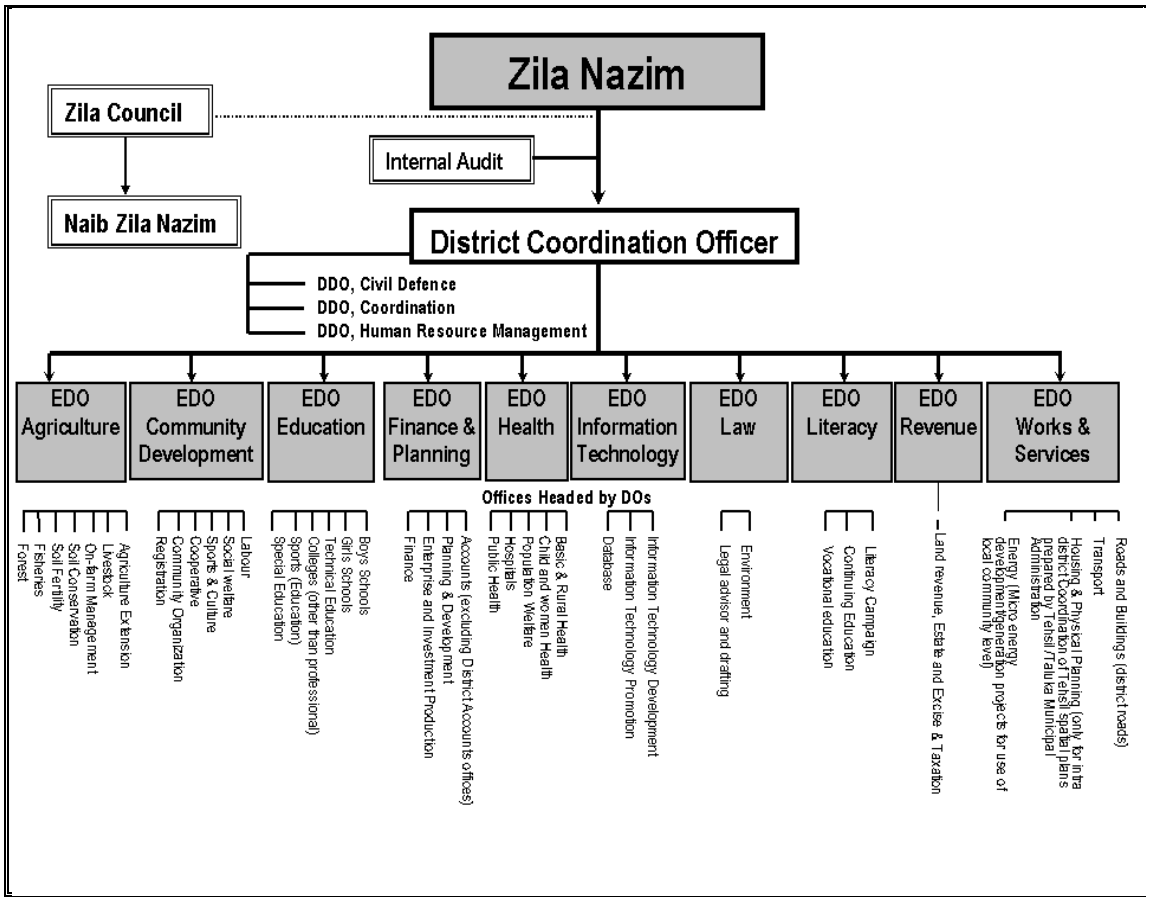


Source: NRB, Government of Pakistan

The council is entitled to prepare the annual budget for municipal and spatial services including the Annual Development Plan. As shown in figure 10.3, the *tehsil* council, with slightly more complex and advanced administrative system compare to union council has multiple functions that ranges from planning and finances to basic infrastructure and other social services.

The highest tier, and probably the most important one, is the district government. The district council is administered by *Zila* or district *Nazim* who is assisted by a good team of district level officials. The district administration structure is presented in figure 10.4, in which we observe that each department or a cluster of departments, which hitherto were under the direct control of provincial governments, is headed by a local bureaucrat, Executive District Officer (EDO). The district administration is coordinated by District Coordination Officer (DCO) who is answerable to the elected district *Nazim.*

Figure 10.4**:** Structure of District/*Zila* Administration



Source: NRB, Government of Pakistan

The district council consists of the union council members indirectly elected from monitories, peasants, workers and women as well as directly elected members of union council Nazims. Therefore, it is fair to argue that the elected members of union councils have their representation at *tehsil* and district levels with *Naib* Union *Nazim* and Union *Nazim* as members of the *tehsil* and district council respectively. All

provincial capitals: Lahore, Karachi, Peshawar and Quetta, are declared as city district governments, and if a city grows and meets a certain urbanised standard, it would be granted the status of city district (Zaidi, 2005). Although the size of local government varies according to population and taxable capacity in each province, the same three tiers system is placed in all four provinces. Table 10.1 presents the total number of local governments in each province.

Table 10.1: Local Governments in Pakistan

Provinces	District Govt.	Tehsil Govt.	Union Council Govt.
Punjab	35	144	3464
Sindh	23	121	1115
KP	24	54	986
Balochistan	28	77	567
Total	110	396	6131

Source: NRB, Government of Pakistan

District being the upper tier of government is responsible for delivering most of the local government services such as education, healthcare, industrial development and agriculture extension, while services such as water supply, sanitation and urban services are delivered by *tehsil* councils.

10.3.2 FINANCES OF LOCAL GOVERNMENTS

A critical factor for the smooth running of any tier of government is the availability of adequate financial resources. Besides political empowerment the efficient social service delivery is one of the cornerstones of the devolution reform of 2000-2001. And effective social service mechanism may not be in place unless the financial issues concern to it are not sorted out.

The LGO clearly spell outs the expenditure and revenue raising powers and responsibilities of all three tiers of local governments. Under this provision, they are entitled to allocate and disburse resources according to their own priorities without any interference or direction from upper tiers of governments (federal or provincial). However, in practice the provincial governments very often exercise control over certain expenditure areas, particularly on expenditures which are undertaken by the conditional transfers from the provinces (Bahl and Cyan, 2009).

Theoretically the local governments are expected to meet a greater share of their expenditures responsibilities by raising revenues through the financial wherewithal assigned to them after the devolution (table 10.2). However, in practice, revenues collected by the local governments cannot meet even a fraction of the expenses in discharging the obligations transferred to them. The taxes assigned to local authorities have narrow and inelastic bases, and the weak and inefficient tax administration and lack of incentive in gathering own resources make it difficult to expedite even whatever tax bases available to them. Thus, because of the narrow tax base with inefficient tax collecting infrastructure, revenue contribution of local government is less than 0.1% of the GDP (Kardar, 2006). The reason for this substantially low tax contribution may be that the local governments in Pakistan are assigned with immovable tax bases which are albeit easy to administer but have very narrow bases thereby do not produce much revenues. Tax assignment to local governments is low. What takes place in this sector may not qualify for the public finance terminologies like 'revenue adequacy', 'administrative feasibility', 'vertical equity' and 'political feasibility'.

The devolution reform has been adopted as a development and service provision strategy therefore the local governments have been given some important functions and responsibilities to discharge. However, the minor taxes that have been accompanied with the expenditures obligations are far from enough to cover the development and service delivery cost and ensures the accountability of the elected representatives. While it is true that tax administration cost is high for local governments for some taxes, this may not for all, thus administratively feasible and lower cost taxes may be assigned to the local governments. Furthermore, whereas it is also true that the local governments may not efficiently impose taxes related to income distribution, however, it may consider all taxes as user charges on social services provided locally and collect them by using local administration. If it leads to the fear of exempting those whose incomes fall below the poverty line from using such services, a targeted subsidisation mechanism may be set up to compensate the poor.

The district governments have the discretionary power over taxes on items such as service fees for education and health. *Tehsil* councils retain power to levy taxes over services and immovable properties that are not taxed under the district councils.

Likewise, the fees for profession and vocations along with some taxes and fees/charges belong to the local councils. However, as shown in table 10.2 that rather

Table 10.2: Revenue-Raising Authorities of Local Government

District Governments	**Tehsils and Town Councils**	**Union Councils**
▪ Education tax. ▪ Health tax. ▪ Tax on vehicles other than motor vehicles. ▪ Local rate on lands assessable to land revenue. ▪ Fees with respect to schools, colleges, and health facilities established or maintained by the district governments. ▪ Fees for licences granted by the district government. ▪ Fees for specific services rendered by a district government. ▪ Collection charges for recovery of taxes on behalf of the government as prescribed. ▪ Tolls on new roads, bridges, within the limits of a district, other than national and provincial highways and roads.	▪ Local tax on services. ▪ Tax on the transfer of immovable property. ▪ Property tax on annual rental value of buildings and lands. ▪ Fee on advertisement, other than on radio and television, and billboards. ▪ Fee for fairs, agricultural shows, cattle fairs, industrial exhibitions, tournaments and other public events. ▪ Fee for approval of building plans and erection and re-erection of buildings. ▪ Fee for licences or permits and penalties or fines for violation of the licensing rules. ▪ Changes for execution and maintenance of works of public utility like lighting of public places, drainage, conservancy, and water supply. ▪ Fee on cinemas, theatrical shows and tickets thereof, and other entertainment. ▪ Collection charges for recovery of any tax on behalf of the Government, District Government, Union Administration or any statutory authority as prescribed.	▪ Fees for licensing of professions and vocation. ▪ Fee on sales of animals in cattle markets. ▪ Market fees. ▪ Fees for certification of births, marriages and deaths. ▪ Charges for specific services rendered by the union council. ▪ Rate for the remuneration of village and neighbourhood guards. ▪ Rate for the execution or maintenance of any work of public utility like lighting of public places, drainage, conservancy and water supply.

Source: NRB, Government of Pakistan, and Kardar (2006)

odd tax levying power granted to local government, with *tehsil* council having more taxation power than district council, even though the district government exercises far greater expenditures obligations than the *tehsil* council.

Therefore, the district governments encounter the largest fiscal imbalance between expenditures obligations and own revenues. This mismatched is largely met through the provincial government transfers through Provincial Finance Commission (PFC).[115] This locally-raised resources and expenditures discrepancy holds for all four provinces although with various degree and magnitude. For example, ADB's (2009) estimates on selected districts of all provinces of Pakistan show that major part of expenditures is covered through transfers. In all 6 districts included in the study, 76 to 91% of district governments' revenue sources are derived from the provincial governments (table 10.3).

Table 10.3: District Government Revenues

(Percent Distribution of Finance)

Provinces &Districts	Tax Revenue	Non-tax Revenue	Provincial Transfers
Punjab			
1. Lahore	0.025	5.135	82
2. Faisalabad	0.046	2.292	76
3. Sialkot		0.200	79
4. Chakwal	1.380	2.292	76
5. Attack	0.000	0.509	85
Sindh			
1. Karachi	21.858	7.122	74
Balochistan			
1. Quetta	1.758		87
2. Sibi			93
3. Qilla Abdullah			91
4. Pishin			92
KP			
1. Mardan			83
2. Peshawar	0.106	1.770	37

Source: ADB Decentralisation Support Programme (2009) and Bahl and Cyan (2009).

In Sindh only Karachi city district is included in the sample, because the data are not availability for other districts of the province. Local tax revenue from Karachi contributes more than 21% to total finances of the city council, which compare to other districts included in the study is quite high. However, Karachi being the biggest city of the country with a vibrant finance and industrial base may not reflect the revenue raising capability of other districts in Sindh. Therefore, it may be maintained that other than Karachi Sindh is not different from other provinces in terms of resource-expenditure mismatch. In Balochistan except Quetta district – which contributes less than 2% to total revenue to its finances – local governments

[115] PFC is described below with great length.

contribute virtually zero tax and non-tax revenues to their finances, which in other words reveal their entire dependency on provincial transfers to finance their expenditures. In case of KP the survey could include only two districts, Peshawar and Mardan. Both are urban districts. Total tax and non-tax contribution of the former is less than 1.87% of total revenue, while in latter case it is almost nil (table 10.3).

The district governments collect tax revenues through two main agencies: 1. the District Excise; and 2. the Taxation Department and Board of Revenue. These agencies historically have been provincial level departments mainly concerned with tax collection for provincial governments. The District Excise collects provincial level tax including property tax, while the Taxation Department and Board of Revenue collects land revenue, agriculture income tax and mutation and registration fee which are to be transferred to the provincial government. Thus, revenue colleting agencies are nominally the parts of district governments, but practically they perform on the behest of provincial governments, which in practice leaves the district councils without any formal tax gathering machinery.

As shown earlier, compared to the district governments, except city districts, the *tehsil* councils have more tax mobilising power. For example, the old *Octroi* and *Zila* tax have been abolished under the new system. To compensate for these taxes, 2.5% has been added to the federal Generalised Sales Tax (GST). The additional GST is transferred to the local governments as grants. However, instead of district councils that had collected *Octroi and Zila* tax, the additional GST is given to the *tehsil* councils. This eventually makes the latter the recipient of one-sixth of the total GST collected by the federal government. Initially the transfer of GST to *tehsil* councils from the federal government was troublesome because of the indirect channel of provincial governments and a deduction by the latter prior to distribution. But for the last few years it has become more smooth and predictable (Bahl and Cyan, 2009). In addition, *tehsil* councils have also been assigned to collect the urban immovable property tax, which transfers 15% of it to the district councils. Therefore, *tehsil* councils with more tax and non-tax revenue sources (see table 10.4 below) are less dependent on intergovernmental transfers to finance their expenditure obligations than district governments, which arguably makes it plausible to state that *tehsil* councils are more close to the decentralised local government concept.

Table10.4: *Tehsil* Council Revenue Sources

(Percent of total revenue)

Provinces/Tehsil Councils	Tax Revenue	Non-tax Revenue	Transfers	Capital/Op Balance	Unclassified
Punjab					
1. Attock	27.8	41.0	30.6	0.3	0.3
2. Gulberg Town (Lahore)	46.2	9.7	20.2	0.0	23.8
3. Bhalwal	6.8	29.8	58.3	3.7	1.4
4. Sialkot	29.3	35.5	34.6	0.6	0.0
Sindh					
1. Liaqatabad Town (Sukkur)	36.1	6.9	19.0	32.8	5.2
Balochistan					
1. Barshore (Pishin)	0.0	0.0	63.0	29.3	7.6
2. Qilla Abdullah (Chaman)	0.0	0.0	77.8	16.3	5.8
3. Zarghoon Town (Quetta)	12.8	0.0	79.7	1.0	6.5
KP					
1. Charsadda	4.2	0.0	34.6	2.9	58.4
2. Mardan	19.9	0.0	10.9	6.5	62.7
3. Nowshera	0.0	0.0	100.0	0.0	0.0

Source: ADB Decentralisation Support Programme and Bahl and Cyan (2009).

10.3.3 PROVINCIAL FINANCE COMMISSION

A significant change accompanying the devolution plan has been the introduction of a formula-based system of resource sharing between the provincial and local governments. All four provinces have constituted their respective Provincial Finance Commission (PFC) in 2001 to formulate the resource transfer mechanism and distribution of finances between provincial and districts governments.[116] The PFC is the statuary body that respective has the finance minister of that respective province as the chairman of the commission, three district *Nazims*, the finance and planning & development departments' secretaries as well as three independent members nominated by the Governor of that province as members. The PFC that has both development and recurring transfers is supposed to ensure the allocations of resources between the provincial government and local governments. Under the PFC the provincial governments are to disburse resources to three tiers of local

[116] The PFC is a formula-based resource distribution mechanism which is different from one province to another and each province constitutes its PFC according to the financial conditions of the local governments and the socio-economic and political needs (Ahmed and Lodhi, 2008).

governments out of the proceeds of the Provincial Consolidated Fund and Provincial Allocable Amount.

The Provincial Allocable Amount is distributed under the PFC ruled-based transfer mechanism in a similar head of the account. The Provincial Consolidated Fund between the provincial and local governments is yet to be defined by the PFCs. This is a legislative requirement under the LGO (Cheema and Ali, 2005).

The PFC projects the anticipated flows of funds that are expected to be available to the provincial government in the concerned financial year from all sources. These sources include federal transfers through the NFC[117], conditional and unconditional grants from the federal government, own-tax and non-tax receipts and foreign loans/grants. As mentioned earlier, the PFC in each province considers the financial and other factors within its jurisdiction. For example, in Sindh, Punjab, KP and Balochistan, the provincial governments would retain 45%, 60.2%, 60 % and 69% from the Net Provincial Divisible Pools and redistribute the remaining 55%, 39.8%, 40% and 31% respectively to the districts.

Table 10.5: Intergovernmental Resource Transfer Criteria

Total pool and distribution criteria	**Punjab**	**Sindh**	**NWFP**	**Balochistan**
Local share of the Provincial Divisible Pool	39.8%	40%	40%	31%
Formula factors with weights	100%	100%	100%	100%
Population	75%	50%	50%	50%
Backwardness of district	10%	17.5%	25%	
Tax collection effort	5%	7.5%		
Fiscal austerity	5%			
Area				50%
Development incentive/ infrastructure deficiency	5%		25%	
District governments' deficit transfers		25%		

Source: Shah (2003) and Sindh (2004)

As table 10.5 illustrates population appears to be the most important criterion being used by all provincial governments in resource transfers to district governments. The Allocable Amounts fixed for local governments are determined and distributed on the basis of the criteria[118] elaborated in table 10.5. Balochistan applies only two criteria: the area and backwardness with 50% weight each. KP provides 25% weight

[117] The NFC is discussed thoroughly in chapter IV of this thesis.

[118] Local government share of Provincial Divisible Pool (PDP) is constant. Rather the PFC committee is authorised to increase/decrease local government share from PDP.

to development incentives and remaining 25% to backwardness in addition to 50% weight to the population. Similarly, the Punjab gives 75% weight to the population and remaining 25% distribution is made on bases of backwardness, tax collection effort and fiscal austerity at the rate of 10%, 5% and 5% respectively. Sindh assigns 25% weight to district deficit financing, 50% to the population and the remaining 25% to backwardness and tax collection effort. In Balochistan and KP there is no incentive for revenue mobilisation so as to encourage the district governments for putting more efforts in gathering revenues.

It is worthwhile to state that the PFC formulates the vertical distribution between the provincial government and district governments and horizontal distribution among districts. It does not spell out transfer mechanism to the *tehsil* or union councils. Provincial transfers to last two tiers of local governments are simply based on resources received from the federal government in the lieu of 2.5% of GST in order to compensate the *tehsil* councils for the removal of *Octori* and *Zila* taxes.

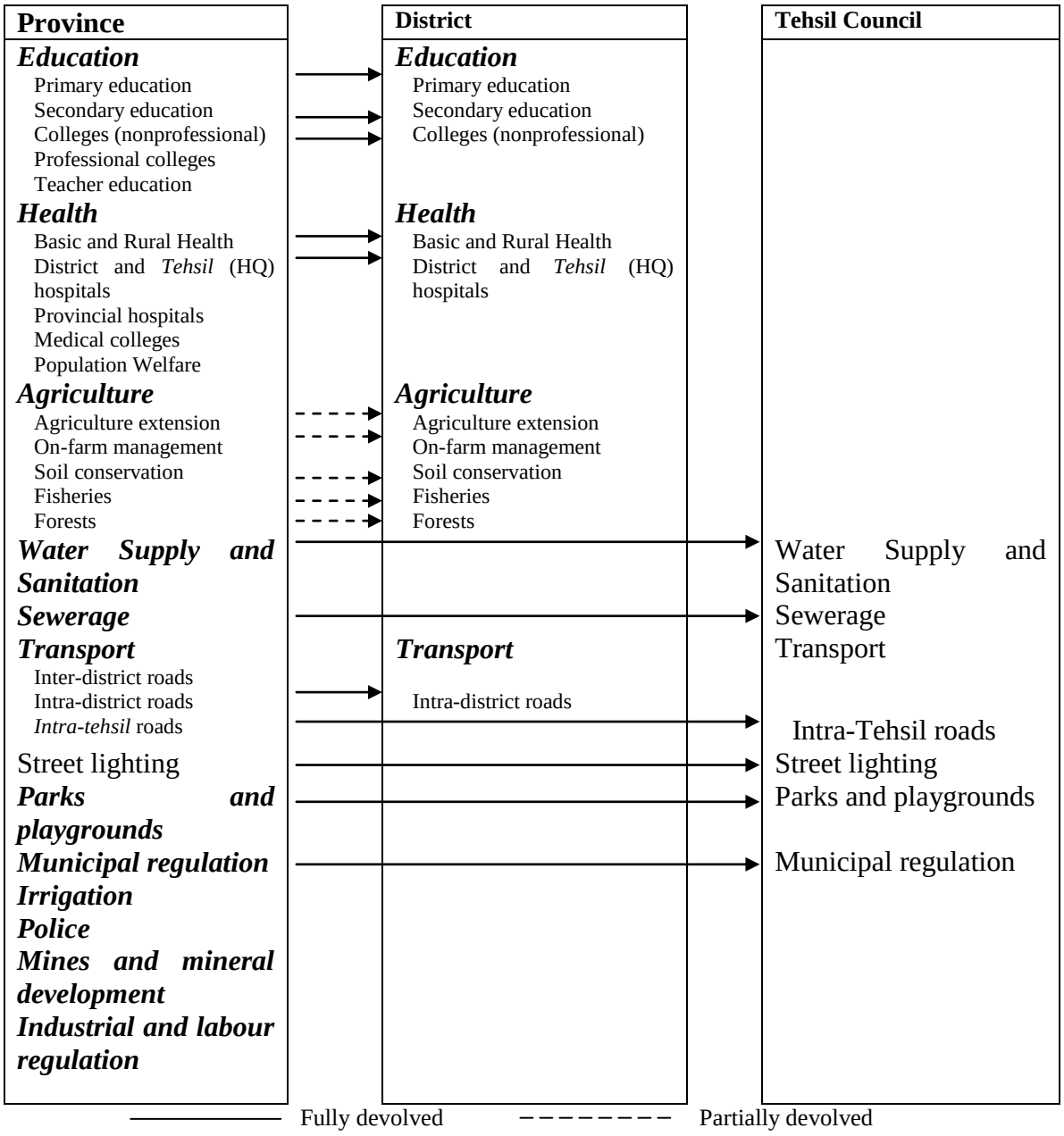
10.3.3.1 EXPENDITURE ASSIGNMENTS

The constitution of Pakistan clearly sets out the federal and provincial governments' expenditure responsibilities undertaken by them separately as well as jointly. However, the constitution does not specify the functional responsibilities of local governments. The latter are considered as the extension of the provincial governments. However, under the Local Government Budget Rules (2002) the local governments have the power to formulate their budgets and prioritise public expenditures without the legal consent of the provincial governments. The same rules categorically elaborate the procedure for budget making and its approval from the concerned local council.

Before the commencement of each financial year the *Nazim* presents the budget before the respective local council for final approval. Normally the budget making exercise takes once the provincial government informs the districts about their total development and non-development share under the PFC Award. It is mandatory for the local councils to budget both development and non-development expenditures. The funds allocation for development expenditures is undertaken once the expenses of non-development expenditure are met.

Under the devolution a significant number of functions and responsibilities have been shifted from the provincial government to local governments. These functions and responsibilities are summarised in table 10.6.

Table 10.6: Functional Reassignments from Provincial to Local Governments Under Devolution



Source: Asian Development Bank and World Bank (2004)

10.3.3.2 NON-DEVELOPMENT AND DEVELOPMENT BUDGETS

Non-development budget of each respective council that accounts almost 90% of total budget is to cater to the recurring expenditures of departments/institutions and

social service provisions. The Finance and Budget Department at the provincial level is responsible to make the non-development budget for district council (Zaidi, 2005). The development budget, on the other hand, is designed and aimed to conduct investment on new assets and improve and maintain the existing ones at local level. The office of the EDO Finance and Planning at the district level is responsible for the consolidation and co-ordination of allocations to various development projects. The *tehsil* officer for planning is in-charge of consolidation and allocation of development funds at the *tehsil* council level. The over-sight body of CCBs plays a pivotal role in planning and budgeting at district council level. Under the new structure of local government it has become mandatory to spend at least 25% of development funds through these CCBs. The local governments are restricted by law to undertake development projects only within its jurisdictional area.

While all three tiers of local government are expected to select development projects, the district council is to concentrate on social sector related projects (projects particularly related to healthcare and education). The union councils are to focus on union level projects. *Tehsil* council plays a fundamental role in providing municipal level services such as water supply schemes and sewerage systems as presented in table 10.6.

10.4 THE POLITICAL ECONOMY OF DEVOLUTION PLAN

The central question here is why the upper tiers of government (federal and provincial) willingly transfer their own power to the local governments? To understand this, it is imperative to critically evaluate the political economy of the devolution plan. This theme is the subject matter of this section.

The above analysis reveals that in post independence period the revitalization of local governments has been an instrument of non-representative governments to gain political legitimacy through it. From Ayub's "Local Democracies" to the current "Devolution Reform" all three military dictators created a patronised political structure at the local level. This was intended to connect the local people and central authority and subdue the former to the latter. Notwithstanding the fact that Pakistan's socio-economic, political, ethnic and geographical conditions required a true devolution system, it was never adopted unless a military regime required a political

legitimisation through local body elections. Even under the devolution plan of 2000-01, which is far more comprehensive compare to its predecessors, the political power has not been transferred to the sub-national governments. Instead the autocratic federal government exercised the said power unabated without accountability and electoral checks and balances. Whatever limited politico-economic and administrative authorities are given to the local governments, all of them have come from the provincial governments that already lacked power. Consequently, it led to create a conflict between provincial and local governments. Although, the LGO was passed and implemented by the provincial governments, but they perceived it as a decree dictated and imposed from above: i.e. the federal government.

Provincial governments were discontent with the devolution plan. Because under the plan the majority of the provincial level functions are devolved to local governments without any prior fiscal decentralisation from federal to provincial governments. As discussed earlier in this thesis, the federal government holds greater functional responsibilities that should be given to the provincial governments considering the federal nature of the country. Hence, the provincial governments maintain that unless true decentralisation takes place from federal government, devolution of the already restricted functions to local governments makes provincial governments irrelevant. The provincial governments therefore see the local governments as an alternate power structure that has been erected to undercut the power of provincially elected representatives.

On paper, the power of bureaucracy has been curtailed by reassigning a larger part of its power to the elected representatives at district and *tehsil* levels. The bureaucracy has also been made accountable to district and municipal/*tehsil* level elected representatives. Hence, it can be assumed that the loosening of bureaucratic control over administrative and financial matters at district level and below is one of the radical reforms brought forward by the devolution plan. This would indicate a big step towards decentralisation. In practice *however* bureaucracy still exercises considerable authority at the expense of district and *tehsil* council Nazims (Manning et. al 2003). Despite the fact that district Nazim is the head of the district government, the local bureaucracy under the facade of DCO, EDOs, TMOs and TMAs exercise substantial fiscal and administrative power. These officials may

undermine the political and administrative power of elected representatives. Moreover, they are accountable either to central or provincial governments.[119]

It may also be argued that one of the motives behind the devolution plan was to weaken the organisational structure of political parties and undermine the electoral politics at the provincial as well as national level. This is for the reason that the elections for local governments are contested on non-party bases.

Nonetheless, despite the political and economic intentions of the devolution reforms and their ramifications on the power struggle, it has been a relatively productive process. The reforms have improved social service deliveries and curtailed, to a great extent, the power of local bureaucracy. Although, the specific political economy interests of the ruling elite who carved-out and implemented the devolution plan may not be ruled out while analysing it, particularly, the political legitimisation of the military in power. But it is important to state that to a certain degree the reforms have been successful in empowering the local communities through their elected representatives and the delivery of better basic social services.

In regards to a question that warrants further analysis is the success and failure of the local governments in providing social services. Remainder of this chapter will examine the impact of the devolution on social and economic services.

10.5 SOCIAL SERVICE PROVISIONS AND THE DEVOLUTION

Expenditure on social services particularly on education and health has been recognised as an important source for the human development and poverty reduction. Countries like Pakistan with compelling fertility rate, widespread and chronic poverty and increasing rate of unemployment need to enhance efficiency of its public expenditure on social services.

Despite having a decent economic growth over the last five decades human development record of Pakistan has been very dismal. Many social sector indicators,

[119] For instance, the DCO is entitled to prepare the first draft of the district budget and maintains oversight over the other officials working in the district. Likewise, the Nazim cannot remove/transfer the DCO without the consent of provincial government. Instead he/she can make a request to the latter for the transfer of the DCO accompanying a performance evaluation report, which is sent to the chief secretary for countersign. The chief secretary recommends it to the chief minister of the province for final approval. Similarly, for EDOs and TMOs or TMAs' transfer the district and *tehsil* Nazims respectively can request the provincial governments where the latter retain the authority to appoint them.

predominantly in health and education, lags far behind some of the neighbouring South Asian and South East Asian countries. For instance, as table 10.7 indicates except Bangladesh, Pakistan records the lowest HDI (0.499) amongst all seven countries in the region included in the sample. Pakistan spends only 0.9% and 1.8% of GDP on health and education which is far below than other regional countries – For example, on health and education Iran spends 2.9% and 4.685% of her GDP, Malaysia 2% and 5.789%, and Bangladesh 2.234% of the GDP on education. Similarly literacy rate in Pakistan (56.53%) is less than the average rate of Least Developing Counties (60%).[120] And the IMR, a barometer for healthcare facility, is very high compare to other countries included in table 10.7. Part of the reason for this abysmal social sector performance is the inadequate and ill-targeted public sector expenditures on social services.

Table 10.7: Selected Social Indicators (2009)

Indicators	**Pakistan**	**Bangladesh**	**India**	**S. Lanka**	**Iran**	**Malaysia**	**Thailand**
Life Exp.	63	65	64	71	71	74	68
IMR	78	48	55	15	35	35	55
Health Exp. (% of GDP)	0.9	0.8	1.4	1.8	2.9	2	3.1
Literacy Rate (%)	56.53	55	N/A	90.6	85.02	92.1	96.2
Pupil-Teacher Ratio	39.69	45.76	N/A	23.15	20.34	13.25	18.44
Education Exp. (% of GDP)	1.8	2.234	4.1	2.08	4.685	5.789	4.126
Human Dev. Index	0.499	0.448	0.542	0.538	0.703	0.658	0.673

Source: WDI, World Bank (accessed on 3/07/2012) & UNDP (accessed on 3/07/2012)
N/A: Not available

As highlighted above one of the reasons for the implementation of the devolution plan was to improve the social services delivery. A substantial descriptive literature is available that addresses the effectiveness of the devolution on social service provision. Parallel to this there is a need for a systematic empirical research body analysing its efficacy in terms of social services provision.

An empirical assessment of social service delivery by any tier of government in Pakistan appears to be quite daunting given the overlapping local and provincial governments structure, where the same service is provided jointly by both tiers of government. In the post devolution period services like education and health

[120] Watson and Khan (2010) for more discussion on education provision in Pakistan

administratively and functionally have largely become under the district governments' domain. Due to the unavailability of data at local level a micro analysis despite its urgency seems very difficult to conduct.

Luckily we have access to a unique dataset, compiled by the Social Policy and Development Centre (SPDC) (2007; 2012), of Multiple Deprivations Index (MDI) of all district of Pakistan for 1998, 2005 and 2009. Using this dataset we can compare the three period MDIs and to evaluate the performance of local governments in terms of social service delivery and more importantly poverty reduction.

As we discussed in chapter 2 and 5 poverty is a multidimensional approach. It cannot be fully explained only by looking at through income or consumption approach. Thus in order to capture the multidimensionality of poverty, various Indices like Human Poverty Index, the HDI and the MDI are suggested and used by many researchers and development economists. Following the literature we use the MDIs of districts that not only help us in understanding the quality and quantity of social services provision but also it explains the incidence of poverty at district levels.

10.6 THE COVERAGE OF THE MDI

The MDI like the HDI commands multiple domains or separate dimensions which largely reflect the deprivation of society. Four dimensions: 1. Education; 2. Health; 3. Housing and residential housing services; and 4. Employment, are included in the MDI with equal weight. Each dimension is the cluster of numbers of indicators that represents different deprivation and explains all aspect of the dimension in a best possible way.[121] Health is a vital social indicator that is normally included while calculating the MDI. But in here given the data limitation at the district level health variable is not included.

The education domain reflects the current and future deprivation of education. It includes both adult literacy rate and school age (5-9 Years) who are out of school for male and female separately to account for the gender disparity. The housing quality dimension includes the number of sub-indicators representing the quality of the houses as well as the ownership status of the dwellers. Having accessed to basic

[121] Appendix F table F.1 presents a schematic view of the sub-statistical indicators for each domain included in MDI.

utilities consumed on daily bases are the fundamental factors to affect human lives. Household deprived of these services would fall under the category of poverty. Another important dimension of the MDI is employment, which is constituted by the unemployment rate and employed labour force in non-manufacturing sectors. The latter is used as proxy to capture the disguised employment (SPDC, 2007).

Initially, the indicators for each sector are combined to construct the sectoral indices. Except person per room, which is standardised with the maximum and the minimum, for housing quality dimension, other indicators are expressed in percentage terms. After computing of each sector with different weight, the IMD is constructed by aggregating them. The formula for MDI derivation is:

$$\boldsymbol{MDI} = \left[\frac{\mathbf{1}}{\mathbf{4}} * \{(\boldsymbol{E})^{\alpha} + (\boldsymbol{HQ})^{\alpha} + (\boldsymbol{HS})^{\alpha} + (\boldsymbol{L})^{\alpha}\}\right]^{\frac{\mathbf{1}}{\alpha}} \quad \textbf{(10.1)}$$

Where:

MDI = Multiple Deprivation Index

E = Index of Education Deprivation

HQ = Index of Deprivation in Housing Quality

HS = Index of Deprivation in Housing Services

L = Index of Deprivation in Employment

α = 3

The parameter (α) has an important role to play. For example with the value of 1, the MDI would be the average outcome of included dimensions. As (α) increases more weight will be assigned to sectors with greater deprivation. However, Following UNDP (1997), the SPDC (2007) fixes the value of (α) at 3 in order to avoid from assigning overwhelming weight to any of the included dimensions. The IMD varies from zero to 100; with the former no deprivation and the latter with the maximum degree of deprivation.

Table 10.8: Indices of Multiple Deprivations in Pakistan

Provinces	MDI in 1998	MDI in 2005	MDI in 2009	Index of Progress (1998 to 2005)[122]	Index of Progress (1998 to 2009)

[122] $Index\ of\ progress = \frac{MDI_t - MDI_{t-1}}{MDI_t}$

Punjab	58.41	52.53	27.8	11.19	88.96
Sindh	62.03	54.95	31.3	12.88	75.56
KP	66.17	58.43	35.1	13.24	66.47
Balochistan	73.15	69.19	50.2	5.72	37.83
Overall	64.51	58.45	31.6	10.36	84.97

Source: SPDC (2007 and 2012)

Table 10.8 shows a reduction in the deprivation level in overall Pakistan by 32.91 percentage point during 1998 and 2009. From 1998 to 2005 the deprivation declined by 6.06 percentage point - from 64.51 to 58.45. During 2005 to 2009 it has drastically decreased by 26.85 points – from 58.45 6o 31.6. The fastest declining rate in the MDI is recorded in KP. Balochistan with highest MDI of 69.19 in 2005 and 50.2 in 2009 possesses the lowest declining rate. The overall 10.36% progress level in MDI between 1998 and 2005, 84% progress between 2005 and 2009, may be considered a marked social and economic development. Among provinces Punjab with 88.96 occupies the highest index of progress, while the MDI during the same period in Balochistan maintains 45.71 index of progress.

10.6.1 DEPRIVATION IN THE PUNJAB PROVINCE

Table 10.9 presents the deprivations of each district in the Punjab in 1998, 2005 and 2009. The index of progression in two districts - Rawalpindi and Sialkot – has been negative out of total 34 districts during 1998 and 2005. However, the same districts have shown a remarkable performance in terms of the MDI reduction during 2005 and 2009. Chakwal district showed the highest and Faisalabad the lowest progress in MDI in 1998-2005 period. Gujranwala has been the best performer in 2005-2009 among the districts in Punjab. Lodhran, a southern district of the Punjab is the most deprived one, whereas Lahore, the capital city and a district in central Punjab is the least deprived one. Districts which have witnessed a noticeable decline in deprivation include Leiah, D.G. Khan, Rajanpur, Bhakhar and Chakwal. A noticeable point is that districts that produced a mark declined in deprivation are all southern Punjab districts, except Chakwal, and also amongst the deprived districts of the province.

In southern districts of Punjab average per capita expenditure is around five times lower in comparison to the northern districts of the province (IPP[123], 2011).The fundamental reason of inequitable distribution of financial resources between southern and northern districts of Punjab has been the inclination of provincial government towards latter districts (IPP, 2008). After the devolution, however, the southern districts have started receiving a far better treatment in terms of resource allocation from the provincial governments. As presented in table10.5, the formula-based PCF Award assigns 75% and 10% to population and backwardness respectively in Punjab that resulted into creating a wider fiscal space for districts particularly in backward southern districts to raise their investments in development projects which potentially have strong impact on human development. The devolution has proved to certain extent to be an effective policy instrument for human development and poverty reduction in the Punjab.

[123] Institute of Public Policy (IPP) is an independent centre for applied economic, social and strategic research was created by the Beaconhouse National University, Lahore, Pakistan, in 2006.

Table 10.9: Indices of Multiple Deprivations in Punjab Province

Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress	Index of Progress (2005 to 2009)	Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress (1998 t0 2005)	Index of Progress (2005 to 2009)
Lodhran	68.9	64.9	37.73	5.81	72.012	Sahiwal	61.3	53.5	25.56	12.72	109.3114
Muzaffargarh	70.8	64.2	39.44	9.32	62.779	H. Abad	58.1	52.9	18.74	8.95	182.2839
Rajanpur	74.8	61.8	14.21	17.38	334.905	Multan	56.8	51.9	28.18	8.63	84.17317
Leiah	69.1	60.1	30.07	13.02	99.867	Narowal	54.9	51.8	18.10	5.65	186.1878
D.G. Khan	70.6	59.6	45.89	15.58	29.876	Kasur	58.3	51.8	22.63	11.15	128.8997
Pakpathan	66	59.5	35.57	9.85	67.276	M. Bahauddin	55.6	50.9	15.24	8.45	233.9895
Bahawalpur	65.3	58.4	36.05	10.57	61.997	T.T. Singh	52.8	50	20.25	5.30	146.9136
R.Y. Khan	66	58.4	38.72	11.52	50.826	Attock	53.7	48	21.82	10.61	119.9817
Jhang	64.6	58.1	34.94	10.06	66.285	Jhelum	51.3	47.7	34.94	7.02	36.51975
Vehari	62.1	58.1	30.68	6.44	89.374	Chakwal	56.9	47.2	15.50	17.05	204.5161
Khanewal	64	58	30.81	9.38	88.251	Sheikhpura	53.8	46.6	18.39	13.38	153.3986
Okara	62	57.5	25.04	7.26	129.633	Faisalabad	45.6	44.2	22.21	3.07	99.00946
Khushab	61.5	57.1	22.27	7.15	156.399	Gujrat	46.5	42.7	13.04	8.17	227.454
Bhakhar	67.9	56.5	32.56	16.79	73.526	Rawalpindi	41	41.4	14.21	-0.98	191.3441
Bahawalnagar	64.1	56.2	34.08	12.32	64.906	Sialkot	40.3	40.9	13.37	-1.49	205.9088
Mianwali	62.3	54.8	29.39	12.04	86.458	Gujranwala	45.1	38.5	10.68	14.63	260.4869
Sargodha	59.3	53.6	25.32	9.61	111.690	Lahore	34.3	29.2	10.26		184.6004

Source: SPDC (2007; 2012)

10.6.2 DEPRIVATION IN SINDH PROVINCE

According to SPDC's (2007; 2012) estimates Tharparkar and Karachi respectively are the most deprived and least deprived districts of Sindh. As table 10.10 indicates, Tharparkar, Badin, Shikarpur, Sukkur and Ghotki are registered the highest declining rate of deprivations over the periods of 1998, 2005 and 2009. Larkana is the only district in Sindh where the magnitude of deprivation has increased overtime during 1998-2005 – the index of progress is negative. The index of progress is the highest for Sukkur and the lowest for Dadu. Majority of deprived districts are rural ones that historically have been neglected from the provincial governments, whereas urban districts like Karachi, Hyderabad and Sukkur have remained the main beneficiaries in terms of receiving the financial resources. However, after the devolution, by the virtue of multi-indicators PFC, the rural districts started receiving a reasonable share of resources. Similarly, because of the local representatives' accountability to their electors a significant part of allocated funds are expected to be invested on economic and social sectors. This led to increase in quality and quantity provision of social services. Unlike other provinces the PFC in Sindh reserves 25% of Provincial Allocable Fund for district governments' deficit financing. This financial cushion provides ample space to the district governments to enhance their expenditure, particularly development expenditure, beyond their own revenues and other provincial transfers.

Like Punjab in Sindh high declining rate in deprivation is observed in backward districts, except of course Sukkur (table 10.10). This shows that the impact of the devolution has been felt in terms of reducing the poverty and human development in deprived districts of the province.

Table 10.10: Indices of Multiple Deprivations in Sindh Province

Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress (1998 to 2005)	Index of Progress (2005 to 2009)
Tharparkar	75.4	64	54.50	15.12	17.431
Thatta	72.7	65.3	52.10	10.18	25.336
Badin	71.6	61.1	43.91	14.66	39.148
Sanghar	64.6	59.7	31.14	7.59	91.715
Nawab Shah	60.4	57.2	30.15	5.30	89.718
Mirpur Khas	65.8	56.3	29.16	14.44	93.073
Jacobabad	68.2	60.1	37.55	11.88	60.053
Khairpur	62.6	57.4	29.16	9.059	96.845
Larkana	59.9	61.2	20.83	-2.17	193.807
Dadu	63.1	62.5	25.67	0.95	143.475
Ghotki	67.7	55.6	24.79	17.87	124.284
Noshero Feroz	60.4	53.5	27.30	11.42	95.971
Shikarpur	64.2	52.7	23.77	17.91	121.708
Hyderabad	53.2	47.2	13.39	11.28	252.502
Sukkur	58	44.5	24.36	23.28	82.677
Karachi	24.6	20.9	9.31		124.490

Source: SPDC (2007 and 2012)

10.6.3 DEPRIVATION IN KP PROVINCE

Table 10.11 depicts that Kohistan is the most deprived and Peshawar is the least deprived districts of KP province. Peshawar is not only the most populous (11.4% of total province population) district but also is the biggest manufactured goods value added contributor (11.83%). On the other hand, Tank is the least populated district (1.3% share of total KP's population share) that contributes only 0.46% to province with respect to agricultural and manufacturing goods (Ahmed and Lodhi, 2008). If population or economic base/tax collection effort was the only criterion of resources transfer to districts, Peshawar would get the lion share and Tank the least in transfers, despite being the least deprived and one of the most deprived districts of KP. The provincial transfer in KP though is not as broad-based as in Sindh and Punjab but allocates 50% on the basis of infrastructure deficiency and backwardness that implicitly benefit the poor and backward districts. Similar to the Punjab and Sindh in KP progression in the MDI is observed almost in rural districts with rampant poverty.

Table 10.11: Indices of Multiple Deprivations in KP Province

Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress	Index of Progress (2005 to 2009)	Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress (1998 t0 2005)	Index of Progress (2005 to 2009)
Kohistan	83	71.7	70	13.61	2.429	Swat	66.3	57.6	33.37	13.12	72.610
Batagram	78	67.9	28.58	12.95	137.579	L. Marwat	63.5	57.1	41.08	10.08	38.997
Chitral	69	64.8	29.52	6.09	119.512	D.I. Khan	68.1	56.8	41.06	16.59	38.334
Upper Dir	74.6	64.6	35.57	13.40	81.614	Kohat	62.1	54.9	29.58	11.59	85.598
Shangla	78.6	64.5	44.48	17.94	45.009	Lower Dir	66.9	54.4	29.06	18.68	87.199
Buner	69.2	63.6	44.52	8.09	42.857	Mardan	61.4	53.8	28.11	12.38	91.391
Tank	68.5	63.2	37.82	7.74	67.107	Nowshera	58.8	52.9	21.63	10.03	144.568
Karak	65.7	63.1	41.93	3.96	50.489	Bannu	62.4	52.9	21.92	15.22	141.332
Hangu	69	61.1	27.16	11.45	124.963	Swabi	64.1	52.9	29.88	17.47	77.041
Mansehra	66.1	60.2	33.97	8.93	77.215	Abottabad	57.5	51.7	23.47	10.09	120.281
Charsadda	65.7	58.8	23.86	10.50	146.438	Haripur	54.5	51.6	16.60	5.32	210.843
Malakand	64.3	58.2	28.35	9.49	105.291	Peshawar	50.8	44.2	17.87	12.99	147.342

Source: SPDC (2007 and 2012)

10.6.4 DEPRIVATION IN BALOCHISTAN PROVINCE

Balochistan is the most deprived province among all provinces. The deprivation was still as high as 82.8 in district Musa Khel in 2005 and 64.96 in Barkhan in 2009 (table 10.12), more so nine of the ten most deprived districts of the country belong to Balochistan (SPDC, 2007; 2012). Albeit, the deprivation has declined in the majority of districts but compare to other provinces the rate is far behind in Balochistan. The annual rate of 2% is not evident in many of the districts. For instance, in Qilla Saifullah and Ziarat the magnitude of the MDI has increased during 1998 and 2005 with alarmingly high enhancement in the latter. District Jafarabad with 13.31 index of progress remained the highest performer among the districts in Balochistan and Awaran with 0.75 index of progress has the least performing district in terms of the MDI reduction during 1998-2005. Quetta has registered no improvement in terms of deprivation during 1998-2005 but shown a marked reduction during 2005-2009 (SPDC, 2012).This is surprising given the social and economic deterioration that have taken place particularly for last five years!

In Balochistan it appears that the devolution has not been as successful as in other three provinces. Multiple political, socio-economic, demographic and geographic factors may be kept responsible for the slow declining rate of deprivation in Balochistan. The most fundamental factor among them is the weak political will of federal and provincial governments to implement the plan.

Moreover, unlike other provinces socio-economic infrastructure in Balochistan was very weak and inadequate in pre-devolution.

As described earlier, the main purpose of the devolution was to ensure that the local governments were empowered in order to meet the local needs. Apparently catering to the needs of the people as well as targeting the poor was the main idea behind the devolution. For this to happen the pattern of public investment should change in the favour of subsectors that are influential in affecting the poor. Therefore, it is worthwhile to investigate empirically whether or not the pattern of public investment has changed.

Table 10.12: Indices of Multiple Deprivations in Balochistan Province

Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress	Index of Progress (2005 to 2009)	Districts	MDI 1998	MDI 2005	MDI 2009	Index of Progress (1998 t0 2005)	Index of Progress (2005 to 2009)
Musa Khel	89.1	82.8	61.14	7.07	35.427	Bolan	75	68.3	42.56	8.93	60.479
Awaran	80.4	79.8	44.65	0.75	78.723	Mastung	73.5	68.1	33.80	7.35	101.479
Kharan	82.9	77.6	45.42	6.39	70.850	Nasirabad	76.7	67.8	45.97	11.60	47.487
Zhob	79.3	77.1	47.36	2.77	62.796	Lasbela	71.6	67.7	58.84	5.45	15.058
Qilla Saifullah	76.2	76.8	54.87	-0.79	39.967	Loralai	70.8	66.2	65.03	6.50	1.799
Panjgur	79.2	75.6	46.11	4.55	63.956	Gwadar	67.8	65.4	42.84	3.54	52.661
Jhal Magsi	79.2	74.7	40.66	5.68	83.719	Sibbi	67.2	63.6	28.57	5.36	122.611
Qilla Abdullah	76.1	73.9	26.36	2.89	180.349	Kalat	70.5	63.2	40.38	10.35	56.513
Khuzdar	79	72.8	44.06	7.85	65.229	Ziarat	59.8	62.5	24.54	-4.52	154.686
Chaghi	72.8	70.1	61.37	3.71	14.225	Jafarabad	71.4	61.9	37.32	13.31	65.863
Barkhan	76.7	69.3	61.96	9.65	11.846	Pishin	65.1	60.6	17.83	6.91	239.877
Kech/Turbat	69.5	68.7	50.36	1.15	36.418	Quetta	46	46	13.18	0.00	249.014

Source: SPDC (2007 ; 2012)[124]

[124] Districts' indices of multiple deprivations for Pakistan, (2011), *research report no.82.* Social Policy and Development Centre

As suggested by Faguet (2004) and our theoretical model presented in chapter 6, if the devolution has failed to change the pattern of public investments then one can argue that decentralisation and centralisation would largely be equivalent in terms of fiscal or economic perspective, though it may differ in terms of political or administrative matters. If the devolution has been successful in shifting the pattern of public investments and making it more responsive to the people's needs then it seems pertinent to claim that the devolution has largely achieved its targeted goals.

We postulate that since the local governments are more responsive to the local people needs because of being accountable to local communities therefore they are expected to change the pattern of investment in the favour of those sectors which are thought to have more benefits to the poor. Given this the following hypothesis is formulated to test the predictions that are drawn from theoretical model of this study:

Hypothesis 5: *Ceteris paribus*, after the devolution pattern of public investment changes and sectors related to social services provision receive more expenditure.

10.7 DID DEVOLUTION CHANGE INVESTMENT ON SOCIO-ECONOMIC SERVICES? DESCRIPTIVE ANALYSIS

Table 10.13 describes the data that are used for the empirical analysis of the impact of the devolution on social service provisions. In this chapter we also draw the data for most of variables from the FBS (various issue); provincial governments budget documents (various years); SPDC (2000; 2007; 2012); State Bank of Pakistan (2010); Pakistan (various Issues). At the provincial level population estimates are obtained by dividing the total population on all four provinces based on the latter's respective share in 1998 census. Provinces in Pakistan are demarcated on ethnic bases and inter-provincial migration is negligible. Accordingly, it is plausible to expect that the population share of the provinces is virtually time-invariant. Besides this, the population needs to be incorporated as an independent variable. Additionally, the same variable is used to obtain per capita expenditures of the provinces.

In order to get public expenditures, per capita income and other variables in real terms, their nominal values are deflated with the Consumer Price Index (CPI). Once the data are collected from the sources mentioned above and brought to a usable shape a reasonable annual time series dataset is constructed that span from 1975 to 2008. Unlike the previous two chapters the end tale of time series for this analysis is 2008 instead of 2009. The reason being, since the local governments completed their four year tenure in 2008 and next elections have been suspended till the time of writing, hence it is worthwhile to limit it till 2008 and investigate the efficacy of local governments in pro-poor social and economic service provisions. The reported data are annual because budgetary allocations to both provincial and local governments are undertaken annually therefore concerned data are made available on annual basis. The cross section comprises all four provinces of Pakistan. Table 10.13 reports the summary of the basic statistics for the relevant variables.[125]

Table 10.13: Descriptive Statistics

Variables	**Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Devolution reform (dummy)	136	0.235294	0.425751	0	1
Population (in millions)	136	28.08185	23.86578	3.59	90.07
Per Capita GDP	136	4008.559	1264.578	2239	7686
Agri. Value Add.*	136	1136.948	288.9449	696.9466	1948.867
Civil Work *	136	20.8603	85.585	0.3527	842.806
Pop. Per Bed	136	1508.684	171.6524	1269	1963
Welfare Expenditure*	136	0.731106	1.011983	0.00322	6.941837
Public Health Expenditure*	136	2.116858	3.431105	0	19.11971
Social Sector Expenditure*	136	43.49989	50.24139	1.191492	249.2615
Education Expenditure*	136	44.64446	47.66713	0.126267	223.6559
Health Expenditure*	136	9.672765	10.01052	0.231037	40.75399
Irrigation Expenditure*	136	5.469899	4.801413	0.177114	24.1072
Rural Development Expenditure*	136	1.794452	5.016514	0	39.68176

* Value Expressed in Per Capita term

[125] For correlation matrix of the variables see appendix F, table F.3

The data limitation at the level of district and beyond restricts our analysis to provincial level. But the provinces are expected to reflect the local expenditures because the provincial expenditures are the aggregation of districts level. Furthermore, considering the financial and expenditure records the provincial level provides similar information for both pre and post devolution periods that enable us in determining and investigating the impact of the devolution reforms on social and economic services provision.

The extent and magnitude of changes in social and economic services that the devolution has brought in Pakistan may be best described from figures 13 through 24. For instance, it is evident from figures 13, 14, 25 and 19 that the annual per capita public expenditure on education, healthcare and welfare services witnessed a sharp rise after 2001 almost in all provinces. This illustrates the fact that after the devolution the public sector has been more responsive in increasing investment in those sectors and sub-sectors that are pro common people, particularly the poor and marginalised, who otherwise would not be able to have access to these services. Likewise, figures 10.7 through 10.10 present that the economic service provision also received a noticeable increase in its investment after the devolution.

It is worth noting that among economic services public expenditures on civil work noticed a drastic change after the devolution (figure 10.9), which raised concerns about patronisation to the local elites and political associates. The civil expenditures contain projects on small roads, bridges, footpaths and such projects are very prone to corruption. In order to buy or maintain the loyalty and political support of the local elite the representatives arguably would allocate more funds to civic works and bestow their work contracts to political loyalists. In terms of civic work Balochistan province registered a mark jump and consistent increase in civic work expenditures till 2005 (figure 10.9). It is argued that although the province attracted a substantial amount of resources for its physical infrastructure, nonetheless, but due to rampant corruption and political patronisation only a small part of allocated resources have been utilised in terms of actual infrastructure development (Rolls, 2008).[126]

[126] Rolls, Mark (2008) "Will 'devolution' improve the accountability and responsiveness of social service deliverty in Balochistan, Pakistan? A Political economy perspective" Working paper series: No. 08-86, London School of Economics.

The geographical distribution of social and economic services has also witnessed a noticeable change in post devolution period. Prior to devolution the per capita expenditures on all social and economic services were more or less the same in all provinces. After the devolution, nevertheless, the geographical composition of expenditures has changed in many of services. For instance, in terms of healthcare expenditures Balochistan was similar to other provinces in per capita terms but has begun to lag behind its counterparts in post devolution period. In case of per capita education expenditure the Balochistan remained ahead of other provinces.

Thus, overall the devolution appears to have helped increasing investment on those social and economic services which potentially can affect local communities – particularly the poor and marginalised section of society.

Figure 10.5: Annual Per Capita Expenditure on Education

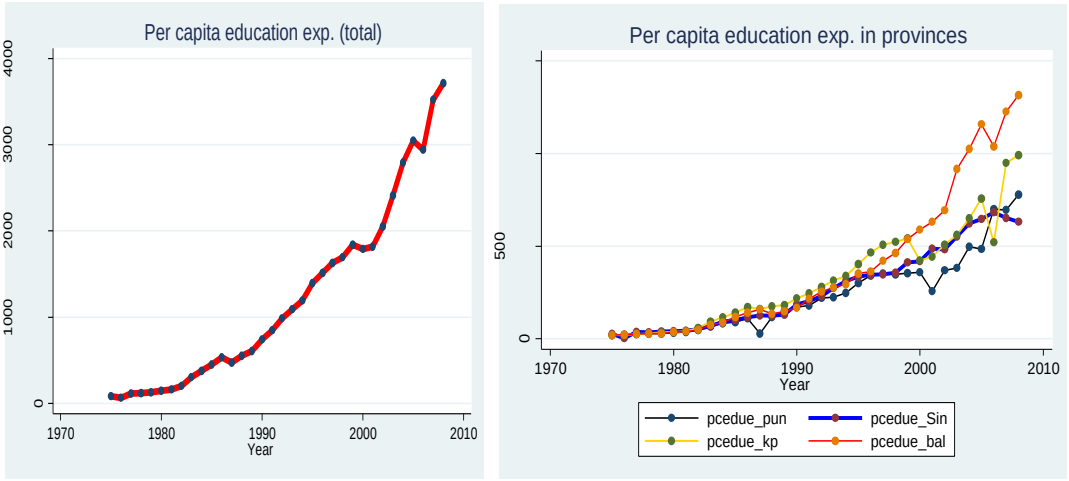


Figure 10.6: Annual Per Capita Expenditure on Healthcare Facilities

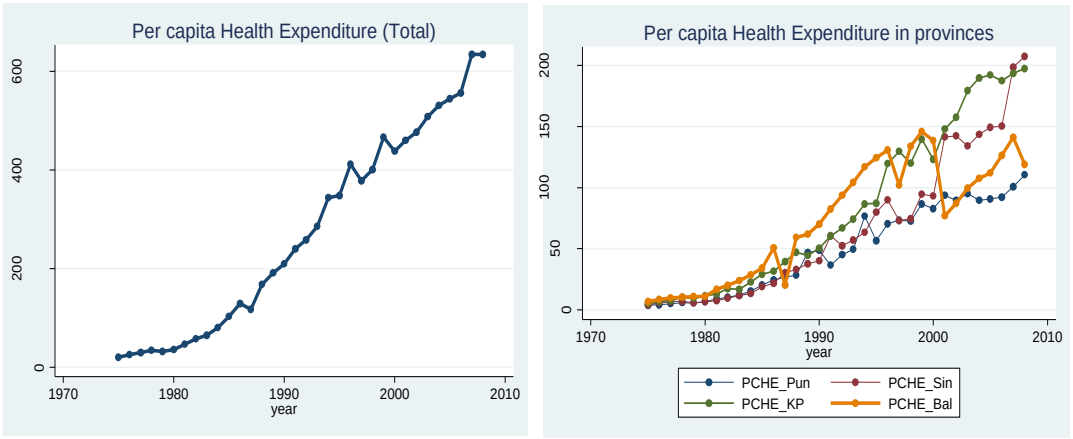


Figure10.7: Annual Per Capita Expenditure on Welfare Services

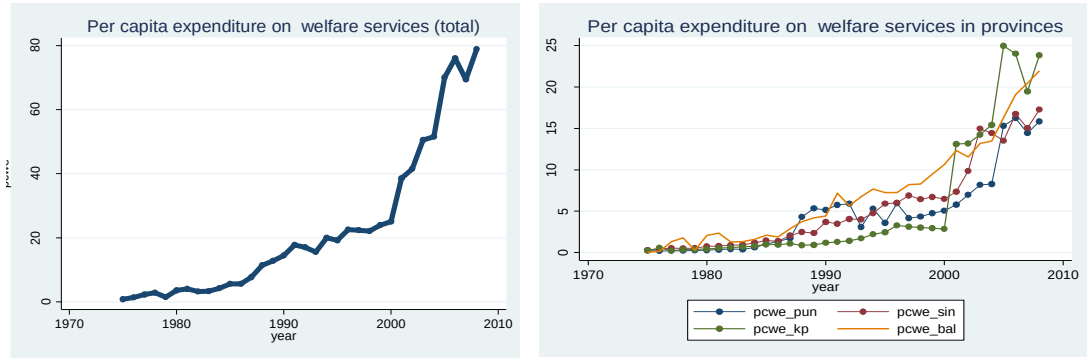


Figure 10.8: Annual Per Capita Expenditure on Water Management

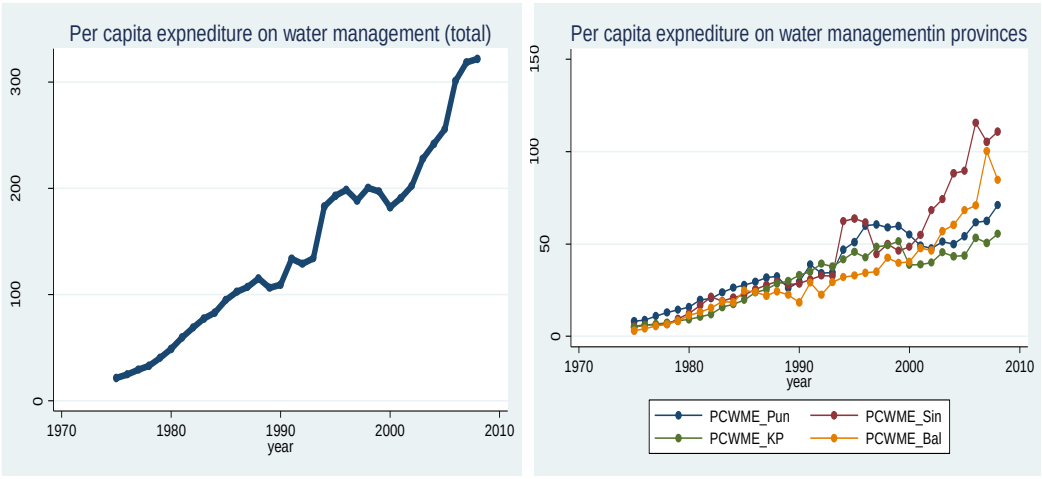


Figure 10.9: Annual Per Capita Expenditure on Civil Work

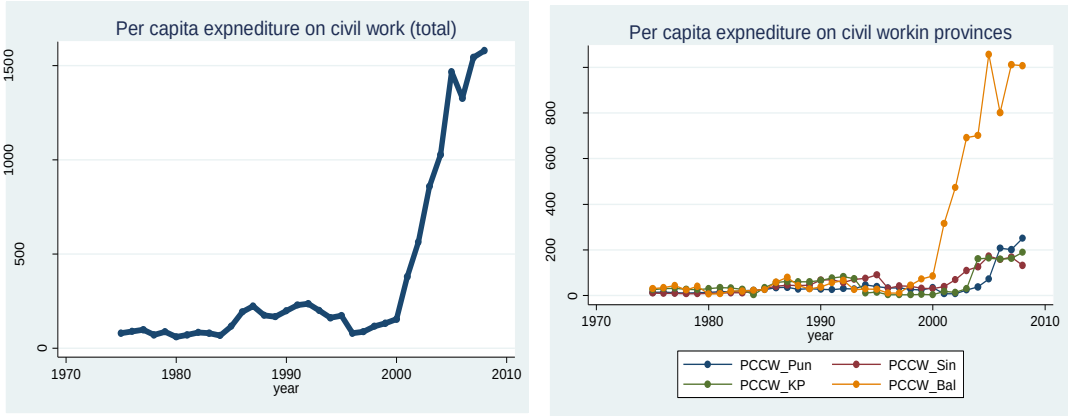


Figure 10.10: Annual Per Capita Growth in Agriculture Value Addition

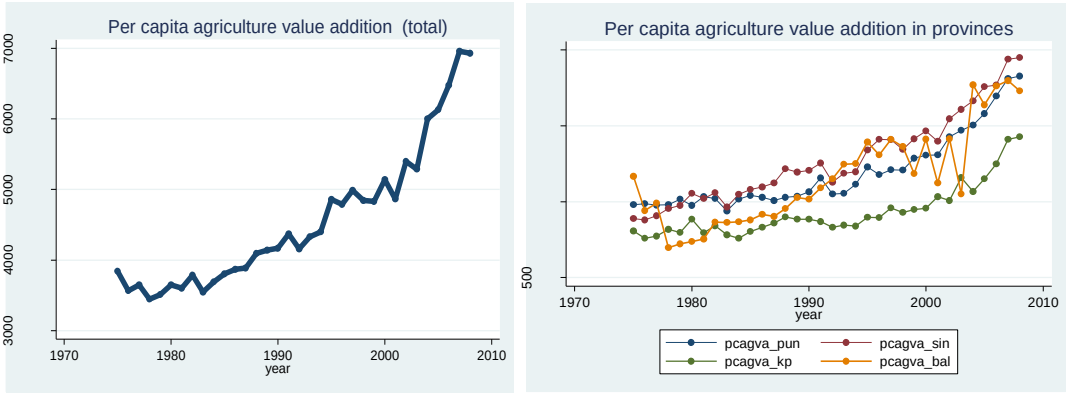
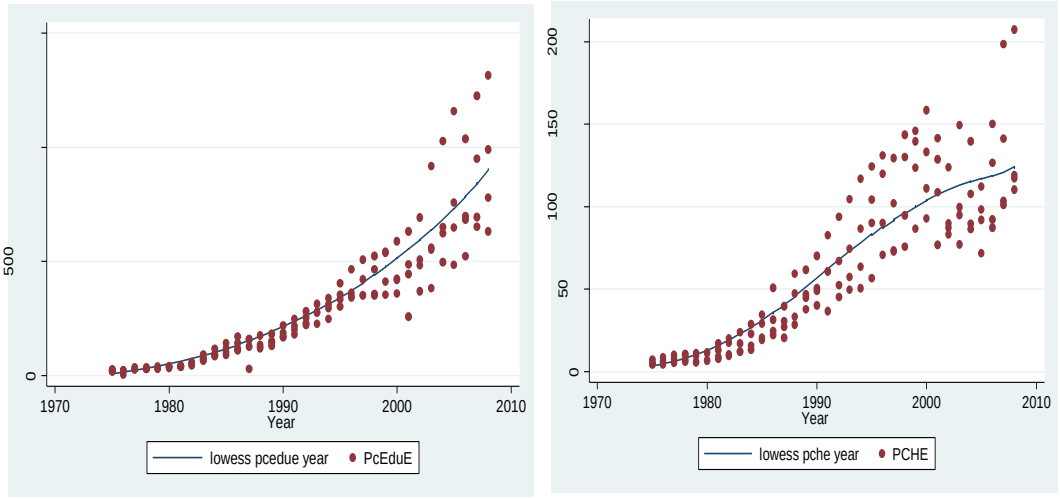


Figure 10.11: Per Capita Education and Health Expenditures



It is obvious from the above descriptive analyses that the economic and social services have changed after the reforms. But it is hard to draw a definitive conclusion from such descriptive evidences. For more reliable conclusion we will present a systematic analysis of the issue in remaining part of this chapter.

10.8 METHODOLOGY AND DATA

The evidence enumerated above indicates that the devolution has increased public expenditures on sectors considered to be important for social development. However, in order to reach to a firm and definitive conclusion more systematic and stronger evidence are required. In this and following sections we conduct an empirical

investigation to test whether or not the devolution has changed the magnitude of the social services provision.

Following Faguet (2004); Faguet and Sanchez (2008); Aslam and Yilmaz (2011) we identify nine sub-sectors with in larger public sector which potentially affect the living standard of local communities in general and the poor and marginalised social groups in particular.[127] Normally the social service/public good provision is 'measured in quality adjusted units of output, separated by the type' (Faguet, 2004: 876). Given the data constraint for such measurements we measure the real investment quantity in terms of public expenditures on these sectors. Such an approach, although restricts from analysing whether the devolution has enhanced the quality of delivery of the public goods (for example, in case of education, adequate supply of school text books, teaching equipments and teacher training courses), it enables us to compare the inter-sectoral resource allocations in pre-devolution with the post devolution period as well as the pattern of public sector investments that changed with the devolution.

The dependent variable is the inflation-adjusted annual per capita amount of investments undertaken in respective sectors, except 'population per bed' variable, which is not expressed in per capita term. The primary independent variable is the devolution reform, which is captured by a dummy variable. As it is noted above that the devolution was launched in 2000-01, the dummy variable takes 1 on 2001 and afterward (2001 to 2008) and 0 otherwise (i.e. from 1975 to 2000). Following Neyapti (2010) per capita Gross National Product is added as an independent variable to proxy for the overall level of development. Arguably population - which is an important time-variant factor - can affect the extents and magnitudes of the social services (Aslam and Yilmaz, 2010), and regions/provinces with larger population receive better treatment than less populated regions (Herna´ndez et al. 2002).

Urban-rural as well as inter-provincial disparity in Pakistan is widespread. The urban areas have far better access to social services than their rural counterparts. With regard to inter-provincial disparity, Balochistan lags far behind other provinces,

[127]These sectoral variables are described in appendix F table F.2.

particularly the Punjab, in terms of social and economic development. As noted in chapter 4 the Punjab receives more than half of the total federal transfers to the provinces. Therefore, it is expected that a rise in the population will increase the size of social service provision.

Cheema et al. (2005) argue that factors such as the institutionalisation and distribution of land and tenancy reforms, equality among the various communities, ethnic harmonisation and openness to trade are likely to increase the accessibility of communities to social services. Given the limitation in data to include them as control variables we treat them as time-invariant. As documented earlier, the governance structure in Pakistan although remained mixed with the periods of democracy and dictatorship, the socio-economic structure mentioned above has remained the same. Hence, the final findings of our research may not be affected due to the exclusion of these variables.

Any systematic change in politics or economic system in Pakistan, such as external shocks, donor funding or any national policy initiatives that have similar effect on all provinces or any other time-specific variations are captured by the year dummies. As shown earlier in chapter 4 Punjab and Sindh's share in total resources allocated to the provinces is disproportionally high. Therefore, they are likely to have a better fiscal capacity to allocate resources to local governments after the devolution and hence more funds for social service sector. Following this proposition and the argument established in chapter 4 and 5 a dummy variable is used to capture the Punjab and Sindh effect.

Based on the above descriptions of independent and dependent variables and panel dataset (34*4), the following model is constructed and statistically estimated:

$$Sec_{it} = \alpha + \beta(PDum_{it}) + \beta + \beta_3(Dev_{it}) + \beta_4(Pop_{it}) + \beta_5(GDP_{it}) + e_i + \mu_{it}; t = 1,2,3,.....34; i = 1,2,3,4 \quad (10.2)$$

The subscript (it) stands for province i at time t. (Sec_{it}) alternatively represents all sectors[128] included in our analysis. $(PDum_{it})$ is the provincial dummy and

[128] See the list of sectors included in table F.2 in Appendix F.

$(YDum_{it})$ is the year dummy. The provincial and time dummies are supposed to capture all of the characteristics associated with the provinces at a given time. (Dev_{it}) is the dummy variable for the devolution with the value of 1 on 2001 and afterward and 0 otherwise (pre-devolution). The devolution dummy (Dev_{it}) represents the role of local governments and other institutions[129] that came into effect after the implementation of the Plan in terms of the pattern of public investment. (Pop_{it}) is the population of the provinces expressed in million and (GDP_{it}) is real per capita GDP described in 1980 constant price terms. The per capita GDP of provinces is expected to control for the overall economic condition of the provincial economy among other things. The relationship of province level per capita GDP and expenditure on social and economic services is expected to be positive: higher average per capita income of one province may lead to increase the expenditures on above services because of the additional resource availability to that province from own revenue sources.

Our variable of interest is the devolution reform dummy(Dev_{it}) that helps us in examining whether after the devolution the expenditures on social and economic services have changed. In equation (10.2) the positive coefficient of Dev_{it} (β_3) suggests that the expenditure on respective service have increased at a faster rate compare to the pre devolution period, *ceteris paribus*. This leads us to conclude that the devolution has been effective in terms of increasing the expenditures on social and economic services which are essential for the human development and the poverty reduction. Conversely, the negative coefficient suggests an adverse impact of the devolution on expenditures on social and economic infrastructure provisions and the zero or very close to zero coefficient shows that the devolution has been neutral in changing the pattern and magnitude of these expenditures. In other words, the expenditures on these services which thus far were undertaken by provincial governments remain persistent and increasing with the same rate irrespective of being devolved to local governments.

We may have unobservable province specific time-invariant characteristics with independent effect on the level and magnitude of the social and economic services

[129] The Devolution Plan reform was accompanied with many social, economic and political institutions, which hitherto had not existed in socio-economic and political realm of Pakistan.

delivery. Then the use of the standard OLS would cause unobserved heterogeneity and produce biased results. Thus, a firsthand remedy comes to mind is the FE and RE estimations method that allows us accounting for unobservable province-specific effects. For the sake of comparison we report the OLS results alongside FE and RE models in tables .10.14 through 10.16. In addition, given the fact that majority of the right side variables are in dummy form (including year dummies), Tobit estimation method for Eqn. (10.2) is also used to strengthen our regression analysis and check for robustness. As a result, the last column of table 10.14 through 10.16 presents the regression results for Tobit estimation. Another major threat to validity of our outcomes could come from the time-variant factors that simultaneously correlate services and the devolution indicators, which may create the problem of endogeneity. This would occur if the federal and provincial governments' choices of devolution were purposely based on quality and quantity of social and economic indicators of localities. In this case the devolution reforms have been nation-wide policy that applied to all districts in all four provinces on Pakistan. Thus, endogeneity is not likely to be a major issue.

10.9 EMPIRICAL RESULTS AND DISCUSSION

For each service four models (standard OLS, Random and Fixed effects and Tobit) are estimated separately and their results are reported in table 10.14 though 10.16. We find that the devolution indicator enters into regressions with significant and positive (negative sign for population per bed as expected) sign across all social and economic indicators in all models. It therefore suggests that the devolution on average has positively impacted the provision of social and economic services provided to local communities. That is to say, given the statistically significant coefficients of the devolution variable, it is plausible to conclude that following the devolution, the magnitude of all nine vital socio-economic services has increased.

As the major objective of the devolution was to make the local public services accessible to the local people and the improvement of social infrastructure, it is reasonable to group the included services into two broad categories: 1. economic services; 2. social services. The former includes development expenditures on sectors such as agriculture, civil work, water management and rural development, whereas the latter includes sectors like health, education, water supply and sanitation

facility, and social welfare and recreational services. As stated earlier, more than 80% of the local governments' finances are utilised for revenue expenditures. However, with it, the development expenditures make up a sizeable spending, which flows to various social and economic development schemes.

For example, the first reported outcome variable – the public expenditure on education – is strongly correlated with the devolution indicator. The coefficient of the latter has a strong positive slope and statistically significant at less than 1% level. It is important to highlight that the level of significance and sign of coefficient remains persistent irrespective of whichever model is used, though the magnitude changes. Healthcare variables (annual expenditures on healthcare and population per bed) maintain positive (negative) and strongly significant coefficient vis-à-vis the devolution reform variable. It suggests that health services have increased in both quantity, proxied by expenditures, and quality, proxied by population per bed after the devolution reforms.

Results presented in tables 10.14 and 10.16 show that impact of the devolution is not limited to social services. Rather the economic services such as agriculture, infrastructure development (proxy by civil work) and water management have registered a mark improvement after the devolution. Similar to the social indicators, the devolution coefficient has a strong and positive association with the agriculture value addition, expenditure on civil work and others. Again, the nature of the relationship and the level of significance are not changing while applying different models.

Interestingly, these outcomes are in accordance with our theoretical prediction; that is, socio-economic services may be better provided by the sub-national government compare to their central counterpart. In the same vein it is also in the line of the empirical literature (for instance, Faguet, 2004) that shows local governments because of the better local knowledge are more effective in providing these social services.

Table 10.14: Determinants of Public Expenditures on Rural Development, Agriculture and Civil Work

Variables	**Public Exp. on Rural Development @ Δ**				**Agriculture Valued Addition Δ**				**Annual Public Exp. on Civil Work@ Δ**			
Models	**OLS**	**RE**	**FE**	**Tobit**	**OLS**	**RE**	**FE**	**Tobit**	**OLS**	**RF**	**FE**	**Tobit**
Devolution Reform (Dummy)	9.951*	8.918**	10.69**	26.10**	0.288***	0.288***	0.303***	9.934**	3.770***	3.770***	5.434***	4.236***
	(5.323)	(4.353)	(5.068)	(12.917)	(0.090)	(0.078)	(0.093)	(4.929)	(1.095)	(0.758)	(1.036)	(0.897)
Punjab-Sindh (Dummy)					0.748***	0.748***		4.625	2.060**	2.060**		0.780
					(0.090)	(0.092)		(18.290)	(0.838)	(0.902)		(1.131)
Population	-0.126**	-0.128*	0.0474	-0.0917	-0.0138***	-0.0138***	-0.00694***	-0.159	-0.0510***	-0.0510***	-0.00701	-0.0247
	(0.056)	(0.074)	(0.379)	(0.073)	(0.002)	(0.002)	(0.002)	(0.365)	(0.018)	(0.018)	(0.021)	(0.022)
Per Capita GDP	0.00524***	0.00507***	0.00148	0.00330*	0.000195***	0.000195***	0.000134***	0.00357	0.000131	0.000131	-0.000803**	-0.000244
	(0.002)	(0.002)	(0.004)	(0.002)	(0.000)				(0.000)	(0.000)	(0.000)	(0.000)
Constant	9.418	7.480	2.213	22.64*	6.342***	6.342***	6.588***	-1.897	2.878***	2.878***	5.346***	3.835***
	(5.803)	(6.675)	(12.901)	(12.642)	(0.066)	(0.068)	(0.087)	(10.137)	(0.468)	(0.663)	(0.963)	(1.067)
Year Dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
N	136	136	136	136	136	136	136	136	136	136	136	136
R^2 (Within)		0.1633	0.1678			0.8656	0.8807			0.5538	0.5832	
R^2 (Between)		0.9968	0.1693			0.8848	0.0121			0.7878	0.2980	
R^2 (Overall)	0.213	0.2202	0.1693		0.866	0.8658	0.4461		0.575	0.5752	0.4475	
F/WaldChai2	2.544 (0.0000)	33.88 (0.005)	1.57 (0.09)	79.23 (0.000)	39.14 (0.000)	638.70 (0.000)	20.45 (0.0000)	37.61 (0.0044)		134.04 (0.0000)	3.88 (0.000)	176.12 (0.000)

@ Value expressed in log form; Δ values are in million Rs.; Panel regressions robust standard error in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.0$

Table10.15: Determinants of Expenditures on Education, Basic Healthcare Indicators

Variables	**Annual Public Exp. Education@ Δ**				**Annual Public Exp. on Basic Health@ Δ**				**Population Per Bed**			
Models	**(OLS)**	**(RE)**	**(FE)**	**(Tobit)**	**(OLS)**	**(RE)**	**(FE)**	**(Tobit)**	**(OLS)**	**(RE)**	**(FE)**	**(Tobit)**
Devolution Reform (Dummy)	1.926***	1.926***	3.733***	0.886***	3.484***	3.454***	3.094***	3.124***	-282.0***	-125.5***	-297.3***	-353.4***
	(0.490)	(0.233)	(0.192)	(0.186)	(0.217)	(0.172)	(0.159)	(0.138)	(28.142)	(29.124)	(12.401)	(11.922)
Punjab-Sindh (Dummy)					0.0624	0.000629		-0.679***				
					(0.121)	(0.123)		(0.247)				
Population	-0.00439*	-0.00439	-0.0176***	-0.00558	-0.00805***	-0.006***	0.0086***	0.00740**	4.211***	3.721***	-2.569***	-3.208***
	(0.003)	(0.003)	(0.006)	(0.007)	(0.002)	(0.002)	(0.003)	(0.003)	(0.171)	(0.458)	(0.326)	(0.337)
Per Capita GDP	0.000128**	0.000128**	0.000183**	0.000501***					-0.0269***	-0.0453***	0.0206***	0.0410***
	(0.000)	(0.0433)	(0.0334)	(0.0000)					(0.002)	(0.010)	(0.005)	(0.005)
Constant	4.078***	4.078***	2.538***	3.286***	1.720***	1.714***	1.452***	1.644***	1767.2***	1642.9***	1750.1***	1719.2***
	(0.510)	(0.278)	(0.217)	(0.456)	(0.088)	(0.117)	(0.113)	(0.133)	(23.967)	(39.431)	(12.910)	(25.089)
Year Dummy		Included	Included	Included	Included	Included	Included	Included		Included	Included	Included
N	136	136	136	136	136	136	136	136	136	136	136	136
R^2 (Within)		0.7452	0.9563			0.9696	0.9753			0.7330	0.9875	
R^2 (Between)		0.0282	0.492			0.8594	0.8590			0.9132	0.9007	
R^2 (Overall)	0.73	0.729	0.9027		0.966	0.9659	0.8628		0.970	0.7843	0.2553	
F/WaldChai2	185.04 (0.000)	296.77 (0.000)	81.34 (0.000)	822.3 (0.000)	165.3 (0.000)	2893.90 (0.000)	114.02 (0.000)	5212.60 (0.000)	84.82 (0.000)	357 (0.000)	293.. (0.000)	10430 (0.000)

@ Value expressed in log form; Δ values are in million Rs; Panel regressions robust standard error in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10.16: Determinants of Expenditures on Water and Sanitation, Social Welfare and Water Management

Variables	**Annual Public Exp. On Water and Sanitation@ Δ**				**Annual Public Exp. On Social Welfare@ Δ**				**Annual Public Exp on Water Management@ Δ**			
Models	**(OLS)**	**(RE)**	**(FE)**	**(Tobit)**	**(OLS)**	**(RE)**	**(FE)**	**(Tobit)**	**(OLS)**	**(RE)**	**(FE)**	**(Tobit)**
Devolution Reform Dummy	39.55***	39.55***	55.79***	87.19	4.499***	4.499***	5.272***	0.606***	2.513***	2.513***	3.079***	3.039***
	(10.151)	(7.309)	(10.083)	(944.591)	(0.505)	(0.443)	(0.527)	(0.217)	(0.217)	(0.167)	(0.225)	(0.151)
Punjab-Sindh Dummy	44.67***	44.67***		30.05*	0.760	0.760		2.664**	0.953***	0.953***		1.077***
	(7.705)	(8.692)		(17.874)	(0.583)	(0.527)		(1.057)	(0.192)	(0.199)		(0.159)
Population	-1.231***	-1.231***	-0.846***	-0.976***	-0.0204*	-0.0204*	0.0236**	-0.0510***	-0.016***	-0.0161***	-0.0164***	-0.0176***
	(0.175)	(0.175)	(0.209)	(0.344)	(0.011)	(0.011)	(0.011)	(0.017)	(0.004)	(0.004)	(0.005)	(0.003)
Per Capita GDP	0.0012	0.0012	-0.007**	-0.001	0.0001	0.0001	-0.0005***	0.0007***	0.0002***	0.00020***	0.000015*	0.000036*
	(0.001)	(0.002)	(0.004)	(0.003)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	6.589	6.589	36.54***	-34.03	-1.956***	-1.956***	-0.707	-0.882	1.057***	1.057***	1.861***	1.590***
	(4.897)	(6.390)	(9.369)	(944.605)	(0.481)	(0.388)	(0.489)	(0.649)	(0.193)	(0.146)	(0.209)	(0.159)
Year Dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	included
N	136	136	136	136	136	136	136	136	136	136	136	136
R^2 (Within)		0.6918	0.7105			0.8829	0.9003			0.9427	0.9490	
R^2 (Between)		0.9761	0.8347			0.5224	0.120			0.9096	0.6256	
R^2 (Overall)	0.788	0.7885	0.6430		0.85	0.8586	0.6458		0.9419	0.9419	0.6668	
F/WaldChai2	14.09 (0.000)	369.00 (0.000)	6.80 (0.000)	320.79 (0.000)	31.91 (0.000)	601.30 (0.0000)	25.03 (0.000)	104.46 (0.000)	94.02 (0.000)	1604.82 (0.000)	51.62 (0.000)	2558.94 (0.0000)

@ Value expressed in log form; Δ values are in million Rs; Panel regressions robust standard error in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

As for the other explanatory variables in the regressions analysis are concerned, the per capita GDP is positively correlated to education expenditures, although with the coefficient close to zero. However, the association of the per capita GDP and the health indicator is mixed. For instance, for the OLS and GLS (RF) the relationship between the population per bed and the GDP per capita is negative which is of course what was predicted. Nevertheless, when it comes to the GLS (FE) and Tobit estimations – that basically are the actual models for final analysis based on the explanation given above – the coefficient of per capita GDP maintains a positive and statistically significant slope vis-à-vis health indicator.

Similar to the education and health indicators, the GDP per capita's association with other included outcomes variables – economic and social alike – is mixed. The variable either appears irrelevant in explaining any change in the services or if relevant in some of the cases, the agriculture for instance, is not consistent across different models or if both significant and consistent then retains a coefficient that is close to zero. But the relationship between the per capita GDP and the services is somewhat not unexpected. That is because considering the geographical conditions and the demographic composition of the provinces in Pakistan the per capita GDP is unlikely to capture the overall development level of provinces. Therefore, the expenditures on these services may not follow an identical trend. For example, Balochistan and Sindh due to the numerous political and economic reasons witnessed a sharp decline relative to the per capita GDP compare to Punjab (Bangali and Sadaqat, 2000). However, the rate of change in public expenditures on socio-economic services has been increasing more or less with the similar rate as in other two provinces.

Of the other control variables, the population has either showed unexpected (negative) sign or appears insignificant vis-à-vis all socio-economic services except health indicators. The negative coefficients of the population in relation to services like education, water & sanitation and civil work suggest that the per capita investment on such services have been higher in Balochistan. This may explain that in Balochistan with very vast land and disperse population the per capita cost of providing a certain social or economic service remains much higher compare to other provinces.

Similarly, the Punjab-Sindh dummy variable has positive and statistically significant association with most of the outcomes variables.[130] This finding perhaps reflects the differential effects of the devolution reform between bigger (more populous), socio-economically better developed and more influential in national polity province(s) compare to the other two provinces, particularly Balochistan where the devolution has not been as affective as in its counterparts.

In general, the overall fit of the regression models is consistent with the decentralisation literature because it explains up to 70% or more of the variation in social service delivery (reflected by the R-squares of respective model reported in table 10.14 through 10.16).

To sum up, the regression results show that the devolution has increased the overall delivery of services. The efficacy of the devolution is evident much more in services like rural development and water management facilities than the education. This to some extent indicates the presence of the local elite capture on which a whole range on fiscal federalism literature (permanent among them is Bardhan and Mookherjee, 2005) suggests. Because, establishments in the shape of irrigation projects and small size physical infrastructure investments in rural areas may be given to local "notables" from the local representatives as political patronage.

10.10 CONCLUSION

After outlining a brief history of the system of local government in Pakistan and the rationale behind it, the chapter thoroughly discussed the idea, structure and content of the devolution. This was followed by critical examination of the impact of the devolution on selected number of the essential social and economic services.

The evidence from Pakistan shows that the devolution significantly changed the size and magnitude of social and economic investment. In all provinces, the investment increased in sectors such as education, healthcare, agriculture, water management, water supply and sanitation, rural development and the civil work. Since these services are strongly associated with local needs, it is reasonable to conclude that the devolution implicitly enhanced the living standard of the local communities,

[130] For those services where it maintains a negative relationship, its coefficients are not reported.

especially the poor. The evidence suggested that public investment in education has increased disproportionately in province like KP.

In terms of econometric analysis, the relationship between the devolution indicator and the majority of socio-economic variables is robust and insensitive of the use of different specification techniques. This implies that the public investment in human and social services that by and large improve the living conditions of poor have increased significantly following the introduction of the reforms since 2000-01. The results also revealed that investment on agriculture, water and civil work sectors respectively was much higher in the Punjab and Sindh, which therefore suggests that the relative impact of devolution is higher in Sindh and the Punjab in comparison to other two provinces (the Punjab and Sindh effect is captured through a dummy variable). Moreover, the results also showed population apparently is not a significant determinant of social and economic provisions. This may be due to the fact that except the population per bed and agriculture variables all other socio-economic indicators are expressed in per capita terms. Likewise, the per capita GDP, as expected, appears to have a positive relationship with the public service provisions. The close-to-zero coefficient of the variable indicates that the per capita GDP was not a pivotal determinant of the investment in public services.

Constraint experienced with data has made it difficult to draw a definite conclusion on the skewness of the social service provision. The data limitation also limited this research from measuring and analysing the quality of these services in terms of units of output rather than sticking only to the supply of such services measured through public expenditures. Therefore, more research is required to understand whether or not effective – if yes how much – the devolution has been in enhancing the quality of 'untargeted services' that potentially affect the local communities without any differentiation. And theoretically an unskewed and untargeted pattern of service distribution is likely to impact positively the poor and disadvantaged communities more compare to their rich counterparts.

CHAPTER 11

CONCLUSIONS

11.1 INTRODUCTION

Many countries around the world embark upon active policies to fight against poverty. One of the mechanisms to pursue this policy has been the provision of social services by means of fiscal decentralisation. Many of the benefits of fiscal decentralisation are anticipated on the premise that decentralisation as policy reform brings decision makers closer to the local people and their needs for better service delivery. Much scholarly research has been conducted on the relationship between fiscal decentralisation and poverty. This research question was also the subject of this study too.

To research this question, this thesis discovered the wide array of possible effects the fiscal decentralisation may have on poverty outcomes. First we built a conceptual framework to assess the direct and indirect relationship of these two variables, because conceptually decentralisation affects poverty both directly and indirectly. The direct affects are redistributive ones that involve changes in fiscal policies or any such reforms that have a direct redistributive bearing on the poor. Transferring more funds to poverty related schemes through provinces is a classic example of direct redistributive effect. The indirect effects, in contrast, are associated with the macroeconomic framework. Among these macroeconomic indicators include economic growth, price stability, high tax and investment to GDP ratios, sustainable deficits, improved governance and local political freedom that are crucial in determining the level of poverty. Fiscal decentralisation potentially affects these indicators.

Although conceptually fiscal decentralisation affects poverty through direct and indirect means. However, without a systematic theoretical and empirical research it was hard to anticipate in advance the possible impact of fiscal decentralisation on

poverty, given the multidimensional nature of the variables. Thus conducting a methodical theoretical and empirical research is only an answer to this predicament.

For theoretical understanding we developed a legislative bargaining model of fiscal federalism. Our theoretical model was based on Kanbur and Feroni (1991); Lockwood (2002); Besley and Coate (2003); Faguet (2004); Renstrom and Marsiliani (2007). The model explicitly introduced welfare and poverty dimensions, implicitly where it was shown that federal transfers empowered the subnational governments to spend more on poverty reduction related schemes. The model provided a framework which implied that under the decentralisation services delivery would tailor to the needs of the median voter that gave relative power to the poor. The role of decentralised governments in terms of public resources allocation and utilization was more efficient – given their proximity and accountability to the local median voter. The decentralised governments' role in this regards was also welfare enhancing with positive impact on their redistributive policies. The theoretical model showed that in the bargaining equilibrium the ratio of local expenditure to total expenditure is increasing in the federal transfer rate. Thus, the model proposed that if the federal transfer rate is larger, then the fiscal decentralisation measure is greater. Since a larger federal transfer rate alleviates poverty, we often would expect poverty and expenditure decentralisation to be negatively related. We tested this proposition empirically and found fiscal decentralisation and poverty negatively correlated.

On the empirical side, we have examined potential impacts of fiscal decentralisation on poverty by testing the main proposition of the theoretical model. The focus of the case study was Pakistan. It demonstrated that how fiscal decentralisation has been effective in terms of poverty reduction and provision of social services over the period of 1975 to 2009.

We used data from various national and international sources to undertake the empirical investigation. We employed four different definitions of poverty: 1. the headcount poverty; 2. poverty gap; 3. severity of poverty; and 4. the HDI. For fiscal decentralisation expenditure decentralisation and revenue decentralisation measures were used. The econometric specifications included other control variables that have been identified in the economic literature as appropriate predictors of poverty.

Empirically, besides the standard Ordinary Least Squared, the Random Effects model and Fixed Effects model, Tobit model and the Generalized Method of Moment Instrumental Variable (GMM-IV) procedures were adopted to draw robust statistical inferences.

11.2 REFLECTIONS AND FINDINGS

The outcomes of the first empirical chapter indicated a significantly negative linear relationship between fiscal decentralisation and poverty in Pakistan. In terms of the HDI the relationship is significantly positive. In addition, we found a strong and significant correlation between pro-poor expenditures' index and poverty. Consequently, the results placed fiscal decentralisation as an important policy instrument for poverty reduction in countries like Pakistan. The chapter presented a macro-level approach by providing an overall picture of this association with a country level dataset as well as a micro-level perspective by presenting a regional and provincial level assessment with a panel dataset of the provinces.

The regression results of this chapter proposed statistically a significant relationship between fiscal decentralisation and poverty reduction outcomes. Nevertheless, the same relationship is much stronger for the Punjab and Sindh, suggesting that provinces with better administrative structure appear to be more effective for the success of fiscal decentralisation in poverty reduction. Hence, it is plausible to conclude that relative impact of fiscal decentralisation in terms of poverty reduction outcomes is far greater in the Punjab and Sindh compare to other two provinces: KP and Balochistan. The empirical results of this chapter also reveal that fiscal decentralisation has an additional impact on poverty outcomes through other explanatory variables such as GDP per capita and the index pro-poor expenditures.

Based on OLS, FE & RE and GMM-IV analyses, where poverty is proxied by FGT indices and the HDI, one may conclude a robust relationship between fiscal decentralisation and poverty. Because, normally the association do not change irrespective of the proxy used for poverty as well as econometrics models. This unveils the fact that if expenditure decentralisation in Pakistan, or for that matter in other countries having similar political, economic, social and ethnic structure, is

implemented wisely and adequately it would work as a crucial policy instrument to tackle issues related to poverty.

Our first and main hypothesis is that, an increase in provincial governments' spending power, as measured by fiscal decentralisation, leads to an improvement in the standard of living of the poor, as proxy either by headcount poverty, poverty gap, squared poverty gap or the Human Development Index, has been empirically tested and proved. In addition, we hold that the provincial governments because of the proximity and accountability to the people are more responsive to local their needs. Consequently, the provincial governments can implement programmes more efficiently with better redistributive effects than the central/federal government. Moreover, in Pakistan social services like health and education constitutionally are provincial subjects. The empirical analyses of this illustrate that the index of pro-poor expenditures appears to be influential in reducing poverty. Thus, delegating more economic power to provincial governments would significantly reduce poverty in provinces.

Albeit, our core hypothesis of this chapter is to assess the relationship between fiscal decentralisation and poverty, we also come across many other findings related to the effects of controlled variables on the incidence of poverty. For example, contrary to our assumption, per capita subsidy appears to be irrelevant in affecting the poor. Nevertheless, the same variable turns out to be significant with an expected sign for urban poverty. Given the positive and significant relationship between the interaction term of fiscal decentralisation and the devolution reform dummy variable against poverty we can conclude that fiscal decentralisation beyond a certain limit appears to be disadvantageous in terms of poverty reduction, because fiscal decentralisation ratio after devolution reform has increased compare to the pre devolution period. We also notice that the devolution reform has been effective in terms of poverty reduction at provincial level; showing that fiscal and administrative empowerment of local governments enhances the scope of fiscal decentralisation regarding essential social services delivery and poverty reductions outcomes. Thus, the results of this chapter somehow support our first hypothesis.

The chapter showed that in Pakistan poverty is largely a regional phenomenon: the poor are predominately concentrated in Balochistan, KP, rural Sindh and southern

Punjab. Thus, under a decentralised setting, the poor gain from resource allocation specific to poverty reduction schemes as well as from allocation of income generating projects. In Pakistan poverty is unequally distributed across the provinces and regions. The provinces are constituted on the line of ethnicity and nationality. Therefore, the response to poverty in each province warrants an efficient response from that respective province.

The structural differences of provinces may be taken into account while forming poverty reduction policies. Although the empirical analysis of this thesis did not explicitly model the structural differences, given the dissimilarities between the provinces in terms of economy, topography and politics, culture and history, we can speculate that these factors have a potential correlation with poverty. For instance, given the vast agricultural base, the Punjab and Sindh may prioritise their investment in this sector, whereas Balochistan may place higher priority on rural development, rural-urban connectivity, provision of essential social services (education and health) and the exploitation of untapped natural resources given its underdeveloped infrastructure, poor socio-economic indicators and the abundance of natural resources.

Our results presented statistically an insignificant and positive relationship between revenue decentralisation and poverty reduction strategies. This is extensively attributed to the low and stagnant share of the provincial governments to total national revenues.

Poverty is a multifaceted concept. One way that it can be reduced is by means of fiscal decentralisation directly. However, as pointed out in this thesis, the impact of decentralisation on poverty reduction outcomes may also be indirect: that is this relationship could occur through certain other channels. As discussed in chapter 2 these services are considered by the public finance and development economics literature having a strong impact on poverty. Looking at the potential channels through which fiscal decentralisation policies may be effective in reducing poverty would further strengthen our argument. Therefore, in second empirical chapter we tested the second, third and fourth hypotheses, described in chapter I.

The leading argument of the second empirical chapter was the apparent comparative advantage of the provinces in the provisions of basic social services such as basic

education, healthcare and enhancing agricultural productivity. The results showed a major relationship between expenditure decentralisation and the expansion of education. Education was proxy by literacy rate among the adult population. In general, the provinces with specific information about the unique problems and requirements concerning the state of education in their respective jurisdictions are more effective in the provision of education. Moreover, decisions that are made locally about education not only would encourage community participation but to a large extent also make local authorities accountable to the local people.

The empirical results presented in this chapter partially verified our hypotheses (2, 3 and 4) relative to the impact of fiscal decentralisation and its impact on basic healthcare, education and agriculture outcomes. On the impact of decentralisation's effectiveness on healthcare services, the empirical results overall indicate an effective outcomes. Nonetheless, we observe that the effect of fiscal decentralisation on health outcomes is weaker for Balochistan and KP compared to other provinces, which in other words indicates that fiscal decentralisation is more powerful and effective policy tool in terms of pro-poor social service delivery in the Punjab and Sindh. The findings suggest that good quality of governance (i.e., using corruption index and the degree of civil liberty) has a positive impact on basic health care. For education, overall, our empirical findings support the hypothesis that fiscal decentralisation improves education. These findings have some implications for poverty reduction; that are directly or indirectly related to education. Certainly, education, especially basic education is considered to be one of the strong instruments of denting poverty in every society. That is because improvement in the quality of human capital enhances productivity, increases employment opportunities, and boosts up growth and income levels of the poor. The empirical results of this chapter further suggest that fiscal decentralisation has a statistically significant effect on productivity in agriculture sector. It occurs because fiscal decentralisation assists the use of local knowledge, local participation and interest, and above all the provincial governments likely to invest more agriculture compare to central government. Thus we can conclude that, for the third pro-poor channel – agriculture sector – our empirical results suggest a positive and statistically significant relationship between decentralisation and agricultural output. Decentralisation has

the potential to enhance transparency and accountability in the delivery of agricultural services.

These results also described a significant relationship between fiscal decentralisation and the provision of better healthcare. The healthcare was proxy alternatively by the IMR and the CDR. It implied that provincial governments are better equipped and more informed in dealing with the basic healthcare issues when compare to the federal government. The evidence of the same chapter also showed a strong case for a positive impact of fiscal decentralisation on growth and efficiency of the agricultural sector. For this sector it was proxy by the sector's productivity and use of fertilizers. All the statistics suggested that agriculture has improved with the greater involvement of provincial government in planning and investment in the sector. Which in other words suggests that fiscal decentralisation is effective in enhancing the agriculture sector performance.

From the third empirical chapter we have concluded that the devolution that was launched in 2000-01 significantly changed the public investment patterns in Pakistan. In all four provinces the investment unambiguously changed in the favour of education, healthcare, water and sanitation, rural development and agriculture after the devolution reforms. These shifts were strongly related to the real needs and preferences of local people. Thus, it is plausible to conclude from the evidence of this chapter that the devolution implicitly enhanced the living standard of the local communities, especially the poor. In terms of econometric analysis, the relationship between the devolution indicator and the majority of socio-economic variables was robust irrespective of the use of different specification techniques. This implied that the public investments in human and social services, by and large, improved the living conditions of the poor and have increased significantly following the introduction of the devolution reforms. The changing pattern of investment chronicled above was determined by the public needs. This suggests that the devolution to the local governments in Pakistan led to an investment increase in precisely those areas that are more likely to benefit the poor.

The statistical evidence of this chapter illustrate that the devolution significantly changes the size and magnitude of social and economic investment. In all provinces, the investment increases in sectors such as education, healthcare, agriculture, water

management, water supply and sanitation, rural development and the civil work. Since these services are strongly associated with local needs, it is plausible to conclude that the devolution implicitly enhances the living standard of the local communities, especially the poor. The data and results further demonstrate that public investment in education has increased disproportionately in province like KP.

In terms of econometric analysis, the relationship between the devolution indicator and the majority of socio-economic variables is robust and insensitive of the use of different specification or econometric models. This involves that the public investment in human and social services that by and large improve the living conditions of poor increases significantly following the introduction of the reforms since 2000-01. The results also exhibits that investment on agriculture, water and civil work sectors respectively is much higher in the Punjab and Sindh, which therefore implies that the relative impact of devolution is higher in Sindh and the Punjab in comparison to other two provinces (the Punjab and Sindh effect is capture through a dummy variable). In addition, the population, which is included as a controlled variable, apparently is not a significant determinant of social and economic provisions. This may be due to the fact that except the population per bed and agriculture variables all other socio-economic indicators are expressed in per capita terms. Likewise, the per capita GDP, as expected, appears to have a positive relationship with the public service provisions. The close-to-zero coefficient of the variable indicates that the per capita GDP is not a pivotal determinant of the investment in public services.

Furthermore, it is worthy to locate and compare the empirical results of this study to the exiting literature of fiscal decentralisation and poverty. As highlighted through the course of this thesis that the study on this topic is not only in its infancy but whatever little attempts have been made could not figure out definitive and encouraging results. In the following we compare and contrast our result with the similar studies. For example, Bird and Rodriguez (1999) finds empirical results similar to our results. They examine the relationship between fiscal decentralisation and poverty alleviation focus on the Philippine. Albeit their statistical findings show a negative and significant impact of decentralisation on poverty, but they equally caution that unless socio-economic, political and economic factors are taken into account and modeled properly, inferring any conclusion whether fiscal

decentralisation actually is affective in poverty reduction seems very hard. Another important study on the same issue is done by Bird et al. (1998), which shows a linkage between intergovernmental grants to poverty alleviation. They conclude in the favour of greater fiscal decentralisation and better intergovernmental fiscal arrangements in order to increase the expenditure on pro-poor schemes that reflect the wishes, needs and preferences of each district and sub-national units. The empirical findings of this study somewhat reach to the same conclusion as is attained by this thesis. Similar to the Bird and Rodriguez's (1999) findings, Crook (2002), using Saharan African countries as case study, emphasises that the impacts of decentralisation on poverty reduction and local government responsiveness to the poor widely depends on the political nature of federal-provincial or provincial-local relations. He also demonstrates that without a broader mechanism of accountability at the lower level of governing system, decentralisation is very unlikely to be effective in poverty alleviation. As highlighted in Chapter 2 Rao (2000) also offers a conceptual framework for the examination of fiscal decentralisation and poverty, and consequently supports a positive and effective role for fiscal decentralisation in poverty reduction. Another systematic study that supports our findings is conducted by Von Braun and Grote (2000).They although show a significant impact of fiscal decentralisation on poverty reduction, on a cross-country analysis of 50 countries, but they equally ascertain the importance of other form of decentralisation (political and administrative) for the success of fiscal decentralisation as well. Bardhan and Mookherjee's (2004) work on West Bengal, India, that shows evidence for the efficacy of fiscal decentralisation to achieve poverty reduction goals, also supports our empirical results. Similarly, we also can locate our results in Galasso and Ravallion's (2005) empirical conclusion, who illustrate that pro-poor programmes would benefits from decentralisation in West Bengal. Likewise, this study's results are in accordance with Lindaman and Thurmaier (2002) who provide evidence of a strong relationship between fiscal decentralisation and health and education outcomes. Moreover, they show that an increase in fiscal decentralisation leads to have a significant impact on Human Development Indicator.

However, as we noted in Chapter 2, several other studies concluded an adverse impact of fiscal decentralisation on poverty reduction and pro-poor service delivery, which are of course in contrast to our conclusion. For example, West and Wong

(1995) find out that decentralisation leads to very poor public services delivery in poorer regions in China. Equally, the Jalan and Ravallion's (1999) empirical results shows that fiscal decentralisation causes significant regional inequality in Argentina. And for Uganda, Azfar and Livingston (2002) do not see any improvement in public service delivery and equity from decentralisation. Empirical results obtain by Braun and Grote (2000), who use a time-series data on China, India, Ghana and Egypt on to analyse the impact of decentralisation on poverty reduction, contrast our empirical findings. Contrary to this thesis' findings, they explain an inverse relationship between decentralisation and poverty. Nonetheless, they conclude that political decentralisation if undertaken parallel to the fiscal decentralisation, the latter could be an effective policy tool in impacting the poor. However, since they present many case studies to support their arguments which may not necessarily work to support the overall conclusion derived from the empirical analysis. That is because they discover significant variations in experience of these countries studies related to fiscal decentralisation. Likewise, Gunatilaka's (2000) analysis on Sri Lanka suggests that fiscal decentralisation may not help in reducing rural poverty if the rural areas are properly connected to the bigger markets and urban agglomeration.

Similarly, the conclusions of this study also contrast the conclusion drawn by Aaron and Schneider (2003). Aaron and Schneider study the pattern and trend of decentralisation and its subsequent impact on poverty in 68 countries. Albeit they infer a positive impact for administrative decentralisation on social policies and poverty, with regard to fiscal and political decentralisation, their empirical results show respectively no impact or negative impact of fiscal and political decentralisation on social expending. Another study contrasting our findings carried out by Khaleghian (2003). Based on 140 countries dataset, he concludes mixed results: fiscal decentralisation appears to help in improving the healthcare outcomes in low income countries, however, for middle income countries the opposite outcomes are concluded. Nonetheless, since Pakistan in a low income country, we can maintain that our empirical conclusion on the role of fiscal decentralisation in affecting healthcare outcomes is not in direct contrast of Khaleghian's (2003) work.

Correspondingly, our empirical results on fiscal decentralisation's impact on healthcare outcomes are in harmony with Mills (1994); Robalino et al (2001); Schwartz's (2002); Arze et al.'s (2003) respective studies, who show a positive

relationship between fiscal decentralisation and healthcare outcomes. Nonetheless, Pritchett, (1996); Inchauste, (2000); DeMello (2004); Khemani's (2004), among others, empirical results contrast our empirical outcomes. In terms of fiscal decentralisation's usefulness in enhancing education outcomes and increasing agriculture productivity and extension, the empirical literature is also divided: some of the studies (for example, World Bank, 2000; Johnson, 2003) are in synchronization with our findings, while others (for instance, Winker, 1994; Hector, 2006; Winkler and Gershberg, 2000) show contracting outcomes to our results.

The dissimilarities of studies mentioned above to our empirical outcomes can be explained, to a large extent, by the dataset, case study as well as the different empirical models used. Moreover, as highlighted in this thesis that political, economic, social and other structural differences of countries would affect the outcomes of fiscal decentralisation. Therefore, it is not surprising to hold contrasting results to some of the existing studies.

Additionally, the thesis showed that in Pakistan fiscal decentralisation entailed great political economy complexities in terms of intergovernmental fiscal relations and coordination failure in fiscal relations between the federal and provincial governments that likely to have strong bearing on fiscal positions of provincial governments in pursuing social services and poverty reduction polices. We analysed various dimensions of intergovernmental fiscal relations in Pakistan in the light of the NFC Awards and other resource distribution mechanisms and examined their potential impact on poverty reduction outcomes. We argued that fiscal policy making in Pakistan was not mainly guided by economic principles. Instead, various lobbyists such as military, politicians and bureaucrats influenced and diverted the majority of public sector resources to unproductive sectors leaving insufficient share for social sector. The horizontal and vertical composition of the NFC Award revealed that albeit expenditure share of provincial governments to total national expenditure has increased, however, population being the sole criterion for horizontal resource distribution has given the most populated province (the Punjab) a very disproportionate share in resources. This led to a great regional inequality among provinces, and socio-economic backwardness and rampant poverty in less populated provinces.

The overall findings of this thesis suggested that the provinces are indeed in need of more resources and greater political power to decide and plan to tackle the high level of poverty in their jurisdictional areas. The federal government's role may be limited in dealing with the core national issues, such as defence, foreign policy and monetary affairs. Moreover, the federal government may also undertake certain revenue collections and services that potentially have greater spillover effects and economies of scale. The provincial governments, contrary to the federal government, because of their proximity and more accountability to the local people have a greater advantage in planning and implementing poverty reduction strategies and other social services schemes that accord to local people's interests.

During the course of the thesis, it was revealed that the expenditures on pro-poor services, carried out for the most part either by federal or provincial governments, were not solely decided based on economic needs and preferences of the people. Political consideration was a deciding part of this process. Public expenditures were made by taking into account the question of how to bring the electorates on board. So political economy dynamics may not be ruled out in determining the public expenditures and subsequent influence on the poor. If this argument holds, the provincial governments are expected to implement and monitor the expenditures on pro-poor services with relative efficiency because of the local governments' proximity and accountability to the electorates.

Another important issue this thesis highlighted was the institutional capacity of the provincial governments. Participation of the local people in governance is essential since they hold the political leaders accountable for social and economic policies and their implementation. Insufficient administrative structure and the lack of democracy would impair both accountability and active public participation of the majority of people in critical decisions that are made for them. This drawback in turn would limit the provincial governments' capability to pursue policies that may aim to improve the living condition of their constituents in general and the poor in particular.

Analysing the overall outcomes of this thesis in the light of Musgrave's (1959) seminal public finance theory and Oates' (1972) work on fiscal federalism regarding the role of public sector in distributing and allocating the public resources may point

to the following findings. Greater fiscal decentralisation makes the provincial governments more autonomous in seeking schemes that potentially enhance the well-being of people in general and the poor in particular. Furthermore, fiscal decentralisation potentially would also increase the efficiency in allocation of resources. That is because the provincial governments are subject to greater responsibility to the people under their dominion. Since they are elected from the same people, therefore, they tend to utilise the public resources more effectively in order not to be voted out. The disadvantaged and poor would benefit from this policy in two ways. The first one comes from the direct investment in basic services that are in accordance with the needs and preferences of each province or district. And the second benefit to the poor incurs because of the greater efficiency in utilising scarce resource that resultantly would faster the economic growth and help creating more employment. Greater employment opportunity certainly helps in terminating the vicious circle of poverty.

The theoretical proposition and empirical results of this thesis may contain a number of implications in regards to policy making. The core policy implication of this thesis is that the subnational governments (provinces and districts) need autonomy and finance to launch comprehensive poverty reduction schemes, and the fiscal autonomy comes through fiscal decentralisation. The subnational governments because of their proximity to the local people and knowing their needs and preferences have a relative advantage in designing and undertaking poverty reduction policies and schemes. However, it is imperative to mention that without substantive administrative and political decentralisation, fiscal decentralisation only is not adequate in designing and implementing these policies and schemes. Political decentralisation would increase the accountability and improve the participation mechanisms at the grassroots level. Likewise the administrative decentralisation would make local officials accountable to the representatives that may augment their social service delivery as well as poverty reduction schemes.

Moreover, the effectiveness of fiscal decentralisation depends largely on many other political economy factors, such as rent-seeking or corruption behaviour, both at federal and provincial levels. Besides this, certain other issues, such as democracy, the rule of law, justice and equity, have great deal to determine the impact of fiscal

decentralisation. For example, it will be naive to expect a sustainable impact of decentralisation without consistent democratic process – without strong democratic institutions in place fiscal decentralisation is likely to promote rent seeking behaviour at sub-national level. However, due to the data limitation this thesis could not model these factors to assess the political impact of fiscal decentralisation on them. A vast body of literature, for example, Fisman and Gatti (2002); Sato, (2003); Fan (2009): Lecuna (2012), shows that fiscal decentralisation, which inherently involves more tiers of government to the public sector, leads to encourage corruption and rent-seeking. That is because in a more complex governance system, as one would expect from fiscal decentralisation, more public officials are involved in public sector delivery. Therefore, it is highly likely that bureaucratic corruption will increase.

This thesis focused only on fiscal dimension of decentralisation. However, it should be noted that it is equally important to look at the other dimensions of decentralisation and their impact on poverty reduction outcomes. The evidence from Pakistan revealed that institutional, socio-cultural, economic and political factors were the main determinants of the success of fiscal decentralisation.

The case of Pakistan, covered in this thesis, demonstrated that the federal government's interventions in certain social policies and poverty reduction schemes create more inefficiency and biasness by favouring one province or region at the expense of other(s) in social service provisions that led to more inter and intra provincial inequality. Thus more provincial and regional autonomy couple with the equal representation of provinces in federation not only helps the latter strengthening itself politically and economically, but equally it consolidates provinces and regions' politico-economic position to tackle social and economic issues like poverty.

Fiscal decentralisation as a policy reform may not be applied equally across all countries. Instead, the degree and magnitude of fiscal decentralisation should be set on the premises of political, socio-cultural and economic structure of that country. That is because countries vary in terms of social and economic system, political and administrative structure, culture and tradition and the level of economic development. In addition to this, each country also varies in terms of the fiscal capacity of each tier of government.

For the effective impact of fiscal decentralisation on poverty reduction outcomes and improved efficiency, there should be some appropriate institutional and structural designs in place. And these designs should not rely entirely on fiscal federalism principles, but equally consider the social, economic and political realities of that country. In the case of Pakistan this thesis supports a fiscal decentralisation system that assigns greater autonomy to provincial and local governments so that they pursue their own policies while simultaneously being accountable to the local people for their actions.

11.3 SUGGESTIONS FOR FURTHER RESEARCH

While addressing the research question of fiscal decentralisation and poverty reduction outcomes through theoretical examination and empirical analysis, some academic and research issues have come out. First, in conducting the research on Pakistan it was felt that fiscal policy issues have not attracted adequate research. And, even whatever research is conducted on fiscal issues and topics, the majority of them have macro level consideration rather than local finance.

Second, researchers in Pakistan have been highlighting the importance of fiscal decentralisation for social and economic development of the country. Nevertheless, the greater concern of these studies has been the fiscal decentralisation from federal government to provincial governments, ignoring the decentralisation to local tier of government. To fill this literary gap, this thesis took the first step in highlighting the importance of local governments in social service delivery. Therefore, we should anticipate that the public finance experts and academic community will pay a considerable attention to address the qualitative and quantitative research questions related to efficacy of local government's empowerment for the improved social services provision and implementing poverty reduction polices.

Third, for the measurement of fiscal decentralisation the IMF's Government Finance Statistics (GFS) is a rich database that provides information of the majority of countries' public finances around the world. However, Pakistan is one of those countries that do not have subnational governments' finances reported in the GFS. Thus, the GFS should broaden its database of local finances and include Pakistan and other such countries. And finally it helps to realise the importance of fiscal

decentralisation as policy tool in those countries where substantive public sector reforms are being initiated.

The data presented in this thesis are from one of the poorest and least developed countries in the world. It took almost a year to collect and organise the data. Given the data limitations in which some of the major variables are measured, the empirical findings of this research may be considered as a first step to know how the relationship between decentralisation and poverty would work. Equally, the quality of the data is sufficient to draw significant and counter-intuitive outcomes. This suggests that with the similar analysis of local political economy, if identical methodology with detailed econometric analysis is applied to more advanced countries, better empirical results can be anticipated.

11.4 LIMITATIONS OF THIS RESEARCH

The theoretical model built although gave a prediction which is proven empirically using a classic but not tested hitherto case of Pakistan with federal structure suitable for a comprehensive empirical analysis of the impact of fiscal decentralisation on poverty reduction. However, the model is yet to be expanded to endogenous various key parameters, such as taxes, "t", and federal transfer, "b". The extension of the model would describe a more advanced setting, where federal transfer to the provinces is determined by the model itself, rather than considered to be exogenously given. Similarly, the same can be done with the tax rate where it would be analysed that when various political economy dynamics interact to determine the federal and subnational level tax rate, instead of assuming as given. In addition to this, a suitable dataset could be utilised to calibrate the model using a suitable computer package such as Matlab or Dynier.

On empirical side, although for the same of figuring out the causal relationship between fiscal decentralisation and poverty and to check the robustness of this relationship, we use the standard Ordinary Least Square, Generalised Method of Moment – Instrumental Variables, Fixed Effects model and Random Effects models and Tobit estimation methods. However, given the nature of poverty a dynamic panel regression could be run to check the consistency of the key result. This could certainly enrich the empirical analysis, considering the persistency of poverty. Such

a dynamic panel is feasible given the reasonably long time series. An Arrelano-Bond type of dynamic panel regression can be used.

In order to assess the impact of fiscal decentralisation on education, healthcare and agriculture, this study use the outcome variables – education, healthcare and agriculture are proxied by literacy rate, infant mortality rate crude death rate, and agriculture value addition and fertilizer consumption. Nevertheless, besides outcomes variables, if intermediately variables such as schools' quality, teachers' availability and kids' enrollment rate and other measures of the quality of education; for healthcare the availability of heath infrastructure, staff and medicines are modeled, the impact of fiscal decentralisation can be better judged on these sectors.

Although a very rich dataset from Pakistan and her four provinces is used to test the validity of the theoretical proposition, therefore, some sound and robust empirical conclusions are drawn. However, the empirical analysis can be enriched further if similar regressions are run for a comparable neighbouring country according to the size of the GDP. Of course this would involve more work, but certainly it can be rewarding in terms of aiming publication in International Journals.

Albeit this study considers the devolution to the local governments and consequently explains the impact the devolution on social services delivery and poverty reduction using provincial level data. Nonetheless, access to a more micro level (district or even beyond) data could make the analysis more robust and marketable in terms of publications in high quality Journals.

An important caveat of fiscal decentralisation is local or elite capture. Decentralisation literature points that the fruits of fiscal decentralisation are likely to be jeopardised because of the presence of the 'elite capture' on the public resources once they are devolved. Therefore, decentralisation may fail to produce the desire outcomes due to the elite capture. If data limitation was not an issue, this study could further extend its research area and empirically test the presence of elite capture, its potential impact on the performance and effectiveness of fiscal decentralisation on social service delivery and poverty reduction. Pakistan is kind of a society where strong landlords, chieftains, tribal elders and few rich families have a high stake to determine the political economy of the country, and influence of these influential individuals or families is more visible in rural areas. In case of decentralisation and

devolution, they potentially have the power to divert the public resources to their own interest as well as bestow their associates at the expense of public benefits at large. Therefore, modeling and empirically assessing elite capture obviously could give us a clearer picture of the effectiveness of fiscal decentralisation on poverty reduction and essential social and economic services delivery.

For chapter 10, the main constraint experienced is the availability of data that has made it difficult to draw a definite conclusion on the skewness of the social service provision. The data limitation also restricts this research from measuring and analysing the quality of these services in terms of units of output rather than sticking only to the supply of such services measured through public expenditures. Therefore, more research is required to understand whether or not effective – if yes how much – the devolution has been in enhancing the quality of 'untargeted services' that potentially affect the local communities without any differentiation. And theoretically an unskewed and untargeted pattern of service distribution is likely to impact positively the poor and disadvantaged communities more compare to their rich counterparts.

APPENDICES

APPENDIX A: FEDERAL GOVERNMENT TAX AND EXPENDITURE

Table A.1: Percentage Distribution of Federal Government Tax Revenue

	Direct taxes						Indirect Taxes					
year	Income Tax	Corporation Tax	Wealth Tax	Gift Tax & Estate Duty	Workers Welfare Tax	Capital Value Tax	Customs Duties	Federal Excise Duties	Sales Tax	Surcharge	Stamp-non Judicial	Others
1979-85	14.837	3.0085	0.202	0.03	0.078	0	41.062	29.508	8.23	3.025	0.01	0
1986-90	15.102	0.216	0.076	0	0.15	0	49.036	23.296	12.124	0	0	0
1991-95	21.784	0	0.48	0	0.404	0.048	40.006	20.984	16.296	0	0	0
1996-00	30.74	0	0.968	0	0.464	0.372	25.596	19.12	22.74	0	0	0
2001-05	30.806	0	0.1	0	1.16	0.19	15.974	10.412	41.358	0	0	0
2006-10	35.314	0	0	0	1.04	0.57	14.978	8.58	38.014	0	0	1.506

Source: Handbook of Statistics on Pakistan Economy, State Bank of Pakistan (2011)

Table A. 2: Percentage Distribution of Various Expenditure of Federal Government

	Current											Development	Total
year	General Administration	Defense	Law & Order	Comm. Services	Social Services	Economic Services	Subsidies	.Debt Servicing, Investible Funds and Grants	Grants to Provinces	Un-allocable	Others		
79-85	4.86	39.12	2.36	1.89	3.08	3.00	5.30	28.42	0.00	0.02	0.00	11.95	100
86-90	4.47	33.65	1.80	1.47	3.23	1.38	4.05	37.72	0.00	0.30	0.00	11.94	100
91-95	4.94	34.47	2.02	1.44	2.91	1.41	2.55	38.52	4.17	1.46	0.00	6.13	100
96-00	4.16	28.52	1.58	1.30	1.95	1.08	1.88	51.02	3.24	1.46	0.00	3.81	100
01-05	4.77	20.20	0.97	0.67	1.09	0.42	2.80	37.28	4.70	1.94	19.75	5.43	100
06-10	0.00	18.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.51	14.23	100

Source: Handbook of Statistics on Pakistan Economy, State Bank of Pakistan (2011)

APPENDIX B: FISCAL DECENTRALISATION MEASUREMENTS AND DATA

Table B.1: Measurement of Fiscal Decentralisation in overall Pakistan *Total Annual Expenditures (expressed in millions rupees)*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
year	**Fed. Exp.**	**Punjab**	**Sindh**	**KP**	**Bal.**	**All prov. exp**	**All Exp=7+2**	**Decent1=7/8**	**Exp Decent1**	**Debt payments**	**fed - debt =2-11**	**7+12**	**decent2=7/13**	**Exp Decnt2**
1975	19415	2060	1481	868	259	4668	24083	0.19383	0.19	0	19415	24083	0.19383	0.19
1976	20240	1571	1686	1165	327.7	4749.7	24989.7	0.190066	0.19	0	20240	24989.7	0.190066	0.19
1977	16938	1661	1959	930	276.7	4826.7	21764.7	0.221767	0.22	998	15940	20766.7	0.232425	0.23
1978	20138	5363	2244	855	334.6	8796.6	28934.6	0.304017	0.3	948	19190	27986.6	0.314315	0.31
1979	24685	6200	2836	2400	846.7	12282.7	36967.7	0.332255	0.39	799	23886	36168.7	0.339595	0.39
1980	21881	7046	3185	2153	1750	14134	36015	0.392448	0.42	10111	11770	25904	0.54563	0.57
1981	26980	8464	3768	3157	2735	18124	45104	0.401827	0.4	13102	13878	32002	0.56634	0.56
1982	33608	9277	4387	2884	3217	19765	53373	0.370318	0.37	17052	16556	36321	0.544176	0.54
1983	34886	7543	2272.3	3960	1539	15314.3	50200.3	0.305064	0.3	16962	17924	33238.3	0.460743	0.46
1984	37299	7833	3005.4	3907	1488	16233.4	53532.4	0.303244	0.3	20863	16436	32669.4	0.496899	0.49
1985	36253	9144	5741.7	4453	2126	21464.7	57717.7	0.371891	0.37	24812	11441	32905.7	0.652309	0.65
1986	37532	11660	3911.9	3409	2710	21690.9	59222.9	0.366259	0.36	25320	12212	33902.9	0.639795	0.63
1987	51147	11651	9961.2	2439	2800	26851.2	77998.2	0.344254	0.34	23460	27687	54538.2	0.492337	0.49
1988	47572	9473	6390.4	2813	3096	21772.4	69344.4	0.313975	0.31	24339	23233	45005.4	0.483773	0.48
1989	57787	12924	6176.5	2214	3368	24682.5	82469.5	0.299292	0.29	32950	24837	49519.5	0.49844	0.49
1990	59864	5682	8857.2	4779	4126	23444.2	83308.2	0.281415	0.28	41794	18070	41514.2	0.564727	0.56
1991	90619	6227	10010.3	5777	5801	27815.3	118434.3	0.234858	0.23	66263	24356	52171.3	0.533153	0.53
1992	91713	6428	11215.3	5843	5913	29399.3	121112.3	0.242744	0.24	64266	27447	56846.3	0.517172	0.51
1993	96245	6024	9534.8	2617	4330	22505.8	118750.8	0.189521	0.18	71469	24776	47281.8	0.475993	0.47
1994	106829	8437	10705.4	1790	4852	25784.4	132613.4	0.194433	0.19	15311	91518	117302.4	0.219811	0.21
1995	110679	9362	13359.4	4123	8267	35111.4	145790.4	0.240835	0.24	23543	87136	122247.4	0.287216	0.28

1996	134601	8323	10119.8	2336	7890	28668.8	163269.8	0.175592	0.17	31399	103202	131870.8	0.217401	0.21
1997	129927	11927	9802.7	2522	7911	32162.7	162089.7	0.198425	0.19	48520	81407	113569.7	0.283198	0.28
1998	149703	10777	10544.7	2081	10802	34204.7	183907.7	0.185988	0.18	44634	105069	139273.7	0.245593	0.24
1999	137074	33190	10599.8	1999	10271	56059.8	193133.8	0.290264	0.29	35549	101525	157584.8	0.355744	0.35
2000	188401	39347	30064	5956	11931	87298	275699	0.316642	0.31	18463	169938	257236	0.339369	0.33
2001	254282	39865	20721.4	6940	14122	81648.4	335930.4	0.243052	0.24	12344	241938	323586.4	0.252323	0.25
2002	151999	44228	14845.4	17869	13335	90277.4	242276.4	0.372622	0.37	13477	138522	228799.4	0.39457	0.39
2003	125348	63956	29935.1	20514	17657	132062.1	257410.1	0.513042	0.5	14758	110590	242652.1	0.544245	0.54
2004	119672	78975	31870.3	26758	26343	163946.3	283618.3	0.578053	0.57	17658	102014	265960.3	0.616431	0.61
2005	124140	96973	49858.3	32542	26378	205751.3	329891.3	0.623694	0.62	19874	104266	310017.3	0.663677	0.66
2006	130335	155977	56819	37975	38542	289313	419648	0.689418	0.68	8777	121558	410871	0.704146	0.7
2007	149128	168242	70202.8	50984	37556	326984.8	476112.8	0.68678	0.68	8977	140151	467135.8	0.699978	0.69
2008	191465	201804	60991	95263	39419	397477	588942	0.6749	0.67	10122	181343	578820	0.686702	0.68
2009	189451	203688	56398	93368	37687	391141	580592	0.673693	0.67	11425	178026	569167	0.687217	0.68

Punjab Exp1. Decent1= 3/8	**Sindh Exp1. Decent1=4/8**	**KP Exp1. Decent1=5/8**	**Baloch Exp1. Decen1t=6/8**	**Punjab Decent2= 3/13**	**Sindh Exp Decent2=4/13**	**KP Exp Decent2=5/14**	**Baloch Exp Decen2t=6/14**
16	**17**	**18**	**19**	**20**	**21**	**22**	**23**
0.085538	0.061496	0.036042	0.0107545	0.085538	0.061496	0.036042	0.010754
0.062866	0.067468	0.046619	0.0131134	0.062866	0.067468	0.046619	0.013113
0.076316	0.090008	0.04273	0.0127132	0.079984	0.094334	0.044783	0.013324
0.185349	0.077554	0.029549	0.011564	0.191627	0.080181	0.03055	0.011956
0.167714	0.076716	0.064922	0.0229038	0.171419	0.07841	0.066356	0.02341
0.195641	0.088435	0.059781	0.0485909	0.272004	0.122954	0.083115	0.067557
0.187655	0.08354	0.069994	0.0606376	0.264483	0.117743	0.09865	0.085463
0.173814	0.082195	0.054035	0.0602739	0.255417	0.120784	0.079403	0.088571
0.150258	0.045265	0.078884	0.0306572	0.226937	0.068364	0.11914	0.046302
0.146323	0.056142	0.072984	0.0277963	0.239766	0.091994	0.119592	0.045547

0.158426	0.099479	0.077151	0.0368345	0.277885	0.17449	0.135326	0.064609
0.196883	0.066054	0.057562	0.0457593	0.343923	0.115385	0.100552	0.079934
0.149375	0.127711	0.03127	0.0358983	0.21363	0.182646	0.044721	0.05134
0.136608	0.092155	0.040566	0.0446467	0.210486	0.141992	0.062504	0.068792
0.156712	0.074894	0.026846	0.0408393	0.260988	0.124729	0.04471	0.068014
0.068205	0.106318	0.057365	0.0495269	0.136869	0.213354	0.115117	0.099388
0.052578	0.084522	0.048778	0.0489807	0.119357	0.191874	0.110731	0.111191
0.053075	0.092602	0.048244	0.0488225	0.113077	0.197292	0.102786	0.104017
0.050728	0.080293	0.022038	0.0364629	0.127406	0.201659	0.055349	0.091579
0.063621	0.080726	0.013498	0.0365876	0.071925	0.091263	0.01526	0.041363
0.064215	0.091634	0.02828	0.0567047	0.076582	0.109282	0.033727	0.067625
0.050977	0.061982	0.014308	0.0483249	0.063115	0.07674	0.017714	0.059831
0.073583	0.060477	0.015559	0.0488063	0.105019	0.086314	0.022207	0.069658
0.0586	0.057337	0.011315	0.058736	0.07738	0.075712	0.014942	0.07756
0.17185	0.054883	0.01035	0.0531807	0.210617	0.067264	0.012685	0.065178
0.142717	0.109046	0.021603	0.0432755	0.152961	0.116873	0.023154	0.046382
0.11867	0.061684	0.020659	0.0420385	0.123197	0.064037	0.021447	0.043642
0.182552	0.061275	0.073755	0.0550404	0.193305	0.064884	0.078099	0.058282
0.24846	0.116293	0.079694	0.0685948	0.263571	0.123366	0.084541	0.072767
0.278455	0.11237	0.094345	0.0928819	0.296943	0.119831	0.100609	0.099049
0.293954	0.151136	0.098645	0.0799597	0.312799	0.160824	0.104968	0.085086
0.371685	0.135397	0.090493	0.0918436	0.379625	0.138289	0.092426	0.093806
0.353366	0.14745	0.107084	0.0788805	0.360157	0.150283	0.109142	0.080396
0.342655	0.10356	0.161753	0.0669319	0.348647	0.105371	0.164581	0.068102
0.350828	0.097139	0.160815	0.0649113	0.35787	0.099089	0.164043	0.066214
Source: own calculation based data source explained in table 7.2							

Table B.2: Expenditure Decentralisation(1), Overall and in each Province

Year	Pakistan	Punjab	Sindh	KP	Balochistan
1975	0.194	0.085	0.061	0.036	0.01
1976	0.190	0.062	0.067	0.046	0.013
1977	0.222	0.076	0.09	0.042	0.012
1978	0.304	0.185	0.077	0.029	0.011
1979	0.332	0.169	0.077	0.065	0.012
1980	0.392	0.195	0.088	0.059	0.048
1981	0.402	0.187	0.083	0.069	0.06
1982	0.370	0.173	0.082	0.054	0.06
1983	0.305	0.15	0.045	0.078	0.03
1984	0.303	0.146	0.056	0.072	0.027
1985	0.372	0.158	0.099	0.077	0.036
1986	0.366	0.196	0.066	0.057	0.045
1987	0.344	0.151	0.129	0.031	0.036
1988	0.314	0.136	0.092	0.04	0.044
1989	0.299	0.156	0.074	0.026	0.04
1990	0.281	0.068	0.106	0.057	0.049
1991	0.235	0.052	0.084	0.048	0.048
1992	0.243	0.053	0.092	0.048	0.048
1993	0.190	0.05	0.08	0.022	0.036
1994	0.194	0.063	0.08	0.013	0.036
1995	0.241	0.064	0.091	0.028	0.056
1996	0.176	0.05	0.061	0.014	0.048
1997	0.198	0.073	0.06	0.015	0.048
1998	0.186	0.058	0.057	0.011	0.058
1999	0.290	0.171	0.054	0.01	0.053
2000	0.317	0.142	0.109	0.021	0.043
2001	0.243	0.118	0.061	0.02	0.042
2002	0.373	0.182	0.061	0.073	0.055
2003	0.513	0.248	0.116	0.079	0.068
2004	0.578	0.278	0.112	0.094	0.092
2005	0.624	0.293	0.151	0.098	0.079
2006	0.689	0.37	0.135	0.09	0.091
2007	0.687	0.353	0.147	0.107	0.078
2008	0.675	0.342	0.103	0.161	0.066
2009	0.674	0.35	0.097	0.16	0.064

Source: own calculation based data source explained in table 7.2

Table B.3: Expenditure Decentralisation(2), Overall and in each Province

Year	Pakistan	Punjab	Sindh	KP	Balochistan
1975	0.19	0.085	0.061	0.036	0.01
1976	0.19	0.062	0.067	0.046	0.013
1977	0.23	0.079	0.094	0.044	0.013
1978	0.31	0.191	0.08	0.031	0.011
1979	0.39	0.173	0.079	0.067	0.023
1980	0.57	0.272	0.122	0.083	0.067
1981	0.56	0.264	0.117	0.098	0.085
1982	0.54	0.255	0.121	0.079	0.088
1983	0.46	0.226	0.068	0.119	0.04
1984	0.49	0.239	0.091	0.119	0.045
1985	0.65	0.277	0.174	0.135	0.064
1986	0.63	0.343	0.1153	0.1	0.079
1987	0.49	0.217	0.186	0.045	0.051
1988	0.48	0.21	0.141	0.062	0.068
1989	0.49	0.261	0.124	0.044	0.068
1990	0.56	0.136	0.213	0.115	0.099
1991	0.53	0.119	0.191	0.11	0.111
1992	0.51	0.113	0.197	0.102	0.104
1993	0.47	0.127	0.201	0.055	0.091
1994	0.21	0.071	0.091	0.015	0.041
1995	0.28	0.076	0.109	0.033	0.067
1996	0.21	0.063	0.076	0.017	0.059
1997	0.28	0.105	0.086	0.022	0.069
1998	0.24	0.077	0.075	0.014	0.077
1999	0.35	0.211	0.067	0.012	0.065
2000	0.33	0.152	0.116	0.023	0.046
2001	0.25	0.123	0.064	0.021	0.043
2002	0.39	0.193	0.064	0.078	0.058
2003	0.54	0.263	0.123	0.084	0.072
2004	0.61	0.296	0.119	0.101	0.099
2005	0.66	0.312	0.16	0.104	0.085
2006	0.7	0.379	0.138	0.092	0.093
2007	0.69	0.36	0.15	0.109	0.08
2008	0.68	0.348	0.105	0.164	0.068
2009	0.68	0.357	0.099	0.164	0.066

Source: own calculation based data source explained in table 7.2

Table B.4: Measurement of Fiscal Decentralisation (Revenue) in overall Pakistan (*Values are expressed in million rupees*)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
year	**Federal Revenue**	**Provincial tax receipts**	**Provincial non-tax receipts**	**3+4**	**Total Revenue=3+2**	**Revenue Decent1=4/6**	**Rev Dec1.**	**Grants**	**K=5-9**	**Rev Decent. 2=10/6**	**Rev Dec2.**	**Punjab Revenues**	**Sindh Rev**
1975	14970	1038	2598	3636	18606	0.195421	0.19	852	2784	0.149629	0.14	2121	1102
1976	17879	1133	2821	3954	21833	0.181102	0.18	979	2975	0.136262	0.13	2242	1214
1977	21968	1355	3125	4480	26448	0.169389	0.16	1067	3413	0.129046	0.12	2762	1274
1978	25725	1452	3466	4918	30643	0.160493	0.16	1164	3754	0.122508	0.12	3206	1450
1979	29862	1605	3468	5073	34935	0.145213	0.14	1407	3666	0.104938	0.11	4431	1939
1980	37949	1852	3240	5092	43041	0.118306	0.11	1472	3620	0.084106	0.08	6130	2644
1981	46349	2227	3293	5520	51869	0.106422	0.1	2071	3449	0.066494	0.06	6552	2852
1982	51167	2371	4217	6588	57755	0.114068	0.11	2967	3621	0.062696	0.06	7083	3154
1983	59080	2613	5621	8234	67314	0.122322	0.12	3555	4679	0.06951	0.06	10722	3498
1984	72309	2935	8288	11223	83532	0.134356	0.13	3604	7619	0.091211	0.09	7619	3760
1985	77971	3206	11702	14908	92879	0.16051	0.16	7423	7485	0.080589	0.08	9297	4164
1986	91420	3391	16981	20372	111792	0.182231	0.18	9643	10729	0.095973	0.09	9924	4565
1987	106324	3770	22960	26730	133054	0.200896	0.2	8424	18306	0.137583	0.13	11743	4987
1988	119601	4209	16089	20298	139899	0.14509	0.14	8247	12051	0.086141	0.08	16194	7110
1989	143077	4880	23753	28633	171710	0.166752	0.16	7688	20945	0.121979	0.12	14318	8902
1990	163525	5022	30648	35670	199195	0.179071	0.17	8310	27360	0.137353	0.13	21874	9992
1991	170344	6731	33526	40257	210601	0.191153	0.19	2394	37863	0.179785	0.17	34144	17407
1992	216586	7536	57991	65527	282113	0.232272	0.23	4047	61480	0.217927	0.21	37206	18675
1993	242619	7869	60505	68374	310993	0.219857	0.21	2337	66037	0.212342	0.21	47146	23537
1994	273239	8697	81175	89872	363111	0.247506	0.24	3132	86740	0.23888	0.23	55894	28028
1995	321323	9035	97721	106756	428079	0.249384	0.24	2071	104685	0.244546	0.24	70136	35577
1996	370509	11255	120446	131701	502210	0.262243	0.26	2008	129693	0.258245	0.25	80177	38504

1997	384263	14726	131556	146282	530545	0.27572	0.27	7861	138421	0.260903	0.26	72792	36782
1998	433636	16712	114419	131131	564767	0.232186	0.23	8235	122896	0.217605	0.21	76459	37118
1999	464372	19025	118659	137684	602056	0.22869	0.22	22347	115337	0.191572	0.19	86103	44963
2000	531300	19460	143157	162617	693917	0.234346	0.23	18507	144110	0.207676	0.2	98413	53181
2001	535091	20686	167838	188524	723615	0.260531	0.26	20317	168207	0.232454	0.23	101596	52998
2002	619069	21607	174113	195720	814789	0.240209	0.24	29981	165739	0.203413	0.2	110562	50417
2003	701576	23329	194039	217368	918944	0.236541	0.23	32326	185042	0.201364	0.2	129142	77033
2004	760983	30365	212148	242513	1003496	0.241668	0.24	44904	197609	0.196921	0.19	147002	86435
2005	875306	32828	251218	284046	1159352	0.245004	0.24	73519	210527	0.18159	0.18	173664	109013
2006	1022704	40589	298912	339501	1362205	0.249229	0.24	63051	276450	0.202943	0.2	227481	86246
2007	1214043	48955	333051	382006	1596049	0.239345	0.23	68341	313665	0.196526	0.19	264169	102492
2008	1402768	50914	392317	443231	1845999	0.240104	0.24	85774	357457	0.193639	0.19	300842	127208
2009	1679300	61312	466896	528208	2207508	0.239278	0.23	85774	442434	0.200422	0.2	377316	149566

15	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
KP Rev	**Baloch Rev**	**P grants**	**S Grants**	**K Grants**	**B Grants**	**Pun. Rev. Grants=13-17**	**S. Rev. Grants=14-18**	**KP Rev. Grants=15-19**	**Bal. Rev. Grants=16-20**	**Punjab Rev Dec.= 13/6**	**PFDR1**
402	253	179.7	90.5	216.8	165.2	1941.3	1011.5	185.2	87.8	0.113995	0.113995
457	322	161	85.1	432.1	275.9	2081	1128.9	24.9	46.1	0.102689	0.102689
520	532	833	382.7	428	522.7	1929	891.3	92	9.3	0.104431	0.104431
609	604	1071	601.4	474.2	517.2	2135	848.6	134.8	86.8	0.104624	0.104624
865	668	159	311	579.8	657.3	4272	1628	285.2	10.7	0.126836	0.126836
1203	872	11.5	11.5	554.6	795.1	6118.5	2632.5	648.4	76.9	0.142422	0.142422
1310	914	244.5	50.2	912	864.3	6307.5	2801.8	398	49.7	0.126318	0.126318
1439	1092	343.8	232	1221.3	1069.7	6739.2	2922	217.7	22.3	0.122639	0.122639

1618	1369	1744.1	887	1367	1256.9	8977.9	2611	251	112.1	0.159283	0.159283
1730	1249	3237.7	1589.7	1324.8	1152	4381.3	2170.3	405.2	97	0.091211	0.091211
1916	1651	5709.5	2630	1081.6	1002	3587.5	1534	834.4	649	0.100098	0.100098
1929	2293	8469.2	4030	1423.5	1719.6	1454.8	535	505.5	573.4	0.088772	0.088772
2349	2241	8997	4504	1977.9	1945.4	2746	483	371.1	295.6	0.088257	0.088257
3426	1768	5016	4196.4	2471.1	1564.1	11178	2913.6	954.9	203.9	0.115755	0.115755
4391	1793	1469	1354.9	3714	1149.8	12849	7547.1	677	643.2	0.083385	0.083385
10195	2365	1555	1645	3457	1526.8	20319	8347	6738	838.2	0.109812	0.109812
13890	4255	1161.9	700	402.5	129.7	32982.1	16707	13487.5	4125.3	0.162126	0.162126
14936	5405	2041.4	1682.6	205.3	117.4	35164.6	16992.4	14730.7	5287.6	0.131883	0.131883
16599	7341	1278	700	250.3	107.4	45868	22837	16348.7	7233.6	0.151598	0.151598
20030	7176	48.4	2070.1	1007.7	7.4	55845.6	25957.9	19022.3	7168.6	0.153931	0.153931
21218	8010	23.2	1632.9	4.8	410.2	70112.8	33944.1	21213.2	7599.8	0.163839	0.163839
23241	9624	31.6	260	4.8	1707.4	80145.4	38244	23236.2	7916.6	0.159648	0.159648
21380	12006	449.2	0	3327.6	4085	72342.8	36782	18052.4	7921	0.137202	0.137202
22072	12569	23.7	0	3675	4536.8	76435.3	37118	18397	8032.2	0.135381	0.135381
24316	14501	5834.4	7213.9	4057.3	5241.7	80268.6	37749.1	20258.7	9259.3	0.143015	0.143015
26714	15020	3906.6	5711	3827.6	5051.8	94506.4	47470	22886.4	9968.2	0.141822	0.141822
26533	15069	3343.9	7798.9	3915.4	5261.2	98252.1	45199.1	22617.6	9807.8	0.140401	0.140401
41027	15409	11122	8880.9	4119.3	5859.2	99440	41536.1	36907.7	9549.8	0.135694	0.135694
34364	10214	14241.4	8182.8	3898	6001.3	114900.6	68850.2	30466	4212.7	0.140533	0.140533
38647	12035	22282.2	11207.2	4500	6915.3	124719.8	75227.8	34147	5119.7	0.14649	0.14649
44249	12889	34513	13437.8	17473.2	8095.1	139151	95575.2	26775.8	4793.9	0.149794	0.149794
51698	16544	18347.9	22730.8	9765.3	12207.2	209133.1	63515.2	41932.7	4336.8	0.166995	0.166995
62012	17556	17067.5	27198.2	11799.2	12276.5	247101.5	75293.8	50212.8	5279.5	0.165514	0.165514
72388	29717	23343	34391	14432.2	21607.5	277499	92817	57955.8	8109.5	0.16297	0.16297
85711	31315	22331	31458	13245.5	20311.4	354985	118108	72465.5	11003.6	0.170924	0.170924

27	28	29	30	31	32	33	34	35	36	37	38	39	40
Sindh Rev Decent1=14/6	**SFDR1**	**KP RevDecent1=15/6**	**KFDR1**	**Baloch RevDecen1t=16/6**	**BFDR1**	**Punjab RevDecent2 = 21/6**	**PFDR2**	**Sindh RevDecent2 =22/6**	**SFDR2**	**KP Exp Rev=23/G**	**KFDR2**	**Baloch Rev Decen2=24/G**	**BFDR2**
0.059228	0.0592	0.021606	0.0210	0.013598	0.0139	0.104337	0.1043	0.054364	0.0543	0.00995	0.0099	0.004719	0.0047
0.055604	0.0556	0.020932	0.0203	0.014748	0.0144	0.095314	0.095	0.051706	0.0517	0.00114	0.0011	0.002111	0.0021
0.04817	0.0481	0.019661	0.0196	0.020115	0.0201	0.072936	0.072	0.0337	0.0337	0.00347	0.0034	0.000352	0.0005
0.047319	0.0473	0.019874	0.0197	0.019711	0.0191	0.069673	0.069	0.027693	0.0276	0.00439	0.0043	0.002833	0.0028
0.055503	0.0555	0.02476	0.0246	0.019121	0.0192	0.122284	0.1222	0.046601	0.0466	0.00816	0.008	0.000306	0.0004
0.06143	0.0614	0.02795	0.0275	0.02026	0.0206	0.142155	0.1421	0.061163	0.0611	0.01506	0.0156	0.001787	0.0017
0.054985	0.0549	0.025256	0.0255	0.017621	0.0172	0.121604	0.1216	0.054017	0.054	0.00767	0.0076	0.000958	0.0005
0.05461	0.0546	0.024916	0.0241	0.018907	0.0180	0.116686	0.1166	0.050593	0.0505	0.00376	0.0037	0.000386	0.0008
0.051965	0.0519	0.024037	0.0243	0.020338	0.0203	0.133373	0.1333	0.038788	0.0387	0.00372	0.0037	0.001665	0.0016
0.045013	0.0450	0.020711	0.0201	0.014952	0.0145	0.052451	0.0524	0.025982	0.0259	0.00485	0.0048	0.001161	0.0011
0.044833	0.0448	0.020629	0.0202	0.017776	0.0177	0.038626	0.0386	0.016516	0.0165	0.00898	0.0089	0.006988	0.0069
0.040835	0.0408	0.017255	0.0175	0.020511	0.0201	0.013013	0.013	0.004786	0.0047	0.00452	0.0045	0.005129	0.0051
0.037481	0.0374	0.017654	0.0175	0.016843	0.0164	0.020638	0.0206	0.00363	0.0036	0.00278	0.0027	0.002222	0.0022
0.050822	0.0508	0.024489	0.0248	0.012638	0.0123	0.0799	0.0799	0.020826	0.0208	0.00682	0.0068	0.001457	0.0014
0.051843	0.0518	0.025572	0.0257	0.010442	0.0104	0.07483	0.0748	0.043953	0.0439	0.00394	0.0039	0.003746	0.0037
0.050162	0.0501	0.051181	0.0518	0.011873	0.0117	0.102006	0.102	0.041904	0.041	0.03382	0.0338	0.004208	0.0042
0.082654	0.0826	0.065954	0.0655	0.020204	0.0200	0.156609	0.1566	0.07933	0.0793	0.06404	0.064	0.019588	0.019
0.066197	0.0661	0.052943	0.0524	0.019159	0.0195	0.124647	0.1246	0.060233	0.06	0.05221	0.052	0.018743	0.018
0.075683	0.0756	0.053374	0.0533	0.023605	0.0236	0.147489	0.1474	0.073433	0.073	0.05256	0.0525	0.02326	0.0232
0.077189	0.0771	0.055162	0.0556	0.019763	0.0196	0.153798	0.1537	0.071488	0.0714	0.05238	0.0522	0.019742	0.019
0.083108	0.0830	0.049566	0.0496	0.018711	0.0181	0.163785	0.1637	0.079294	0.079	0.04955	0.0495	0.017753	0.017

0.076669	0.0766	0.046277	0.0467	0.019163	0.0196	0.159585	0.1595	0.076151	0.076	0.04626	0.0462	0.015764	0.015
0.069329	0.0692	0.040298	0.0409	0.02263	0.0223	0.136356	0.1363	0.069329	0.069	0.03402	0.034	0.01493	0.014
0.065723	0.0652	0.039082	0.0398	0.022255	0.0225	0.13534	0.1353	0.065723	0.0657	0.03257	0.0325	0.014222	0.014
0.074682	0.0748	0.040388	0.0408	0.024086	0.0248	0.133324	0.1333	0.0627	0.0627	0.03364	0.0336	0.015379	0.0153
0.076639	0.0763	0.038497	0.0389	0.021645	0.0214	0.136193	0.1361	0.068409	0.0684	0.03298	0.0329	0.014365	0.014
0.073241	0.0734	0.036667	0.0366	0.020825	0.0202	0.13578	0.1357	0.062463	0.0624	0.03125	0.031	0.013554	0.013
0.061877	0.0617	0.050353	0.0505	0.018912	0.0181	0.122044	0.122	0.050978	0.0509	0.04529	0.045	0.011721	0.011
0.083828	0.0832	0.037395	0.0379	0.011115	0.0111	0.125035	0.125	0.074923	0.0749	0.03315	0.0331	0.004584	0.0045
0.086134	0.0863	0.038512	0.0381	0.011993	0.0119	0.124285	0.1242	0.074966	0.0749	0.03402	0.034	0.005102	0.0051
0.094029	0.0942	0.038167	0.0386	0.011117	0.0111	0.120025	0.12	0.082438	0.0824	0.02309	0.023	0.004135	0.0041
0.063314	0.0631	0.037952	0.0375	0.012145	0.0124	0.153525	0.1535	0.046627	0.0466	0.03078	0.0307	0.003184	0.0031
0.064216	0.0641	0.038853	0.0385	0.011	0.011	0.154821	0.1548	0.047175	0.0471	0.03146	0.031	0.003308	0.0033
0.06891	0.0681	0.039213	0.0391	0.016098	0.0169	0.150325	0.1503	0.05028	0.0502	0.03139	0.031	0.004393	0.0043
0.067753	0.0675	0.038827	0.0382	0.014186	0.0148	0.160808	0.1608	0.053503	0.0535	0.03282	0.0328	0.004985	0.0049
Source: own calculation based data source explained in table 7.2													

Table B.5: Revenue DecentraliSation_1 in each Province

Year	Pakistan	Punjab	Sindh	KP	Balochistan
1975	0.19	0.114	0.059	0.022	0.014
1976	0.18	0.103	0.056	0.021	0.015
1977	0.16	0.104	0.048	0.020	0.020
1978	0.16	0.105	0.047	0.020	0.020
1979	0.14	0.127	0.056	0.025	0.019
1980	0.11	0.142	0.061	0.028	0.020
1981	0.1	0.126	0.055	0.025	0.018
1982	0.11	0.123	0.055	0.025	0.019
1983	0.12	0.159	0.052	0.024	0.020
1984	0.13	0.091	0.045	0.021	0.015
1985	0.16	0.100	0.045	0.021	0.018
1986	0.18	0.089	0.041	0.017	0.021
1987	0.2	0.088	0.037	0.018	0.017
1988	0.14	0.116	0.051	0.024	0.013
1989	0.16	0.083	0.052	0.026	0.010
1990	0.17	0.110	0.050	0.051	0.012
1991	0.19	0.162	0.083	0.066	0.020
1992	0.23	0.132	0.066	0.053	0.019
1993	0.21	0.152	0.076	0.053	0.024
1994	0.24	0.154	0.077	0.055	0.020
1995	0.24	0.164	0.083	0.050	0.019
1996	0.26	0.160	0.077	0.046	0.019
1997	0.27	0.137	0.069	0.040	0.023
1998	0.23	0.135	0.066	0.039	0.022
1999	0.22	0.143	0.075	0.040	0.024
2000	0.23	0.142	0.077	0.038	0.022
2001	0.26	0.140	0.073	0.037	0.021
2002	0.24	0.136	0.062	0.050	0.019
2003	0.23	0.141	0.084	0.037	0.011
2004	0.24	0.146	0.086	0.039	0.012
2005	0.24	0.150	0.094	0.038	0.011
2006	0.24	0.167	0.063	0.038	0.012
2007	0.23	0.166	0.064	0.039	0.011
2008	0.24	0.163	0.069	0.039	0.016
2009	0.23	0.171	0.068	0.039	0.014

Source: own calculation based data source explained in table 7.2

Table B.6: Revenue Decentralisation (2)2 in each Province

Year	Pakistan	Punjab	Sindh	KP	Balochistan
1975	0.14	0.1043	0.0543	0.0099	0.0047
1976	0.13	0.095	0.0517	0.0011	0.0021
1977	0.12	0.072	0.0337	0.0034	0.00035
1978	0.12	0.069	0.0276	0.0043	0.0028
1979	0.11	0.1222	0.0466	0.008	0.00034
1980	0.08	0.1421	0.0611	0.01506	0.0017
1981	0.06	0.1216	0.054	0.0076	0.00095
1982	0.06	0.1166	0.0505	0.0037	0.00038
1983	0.06	0.1333	0.0387	0.0037	0.0016
1984	0.09	0.0524	0.0259	0.0048	0.0011
1985	0.08	0.0386	0.0165	0.0089	0.0069
1986	0.09	0.013	0.0047	0.0045	0.0051
1987	0.13	0.0206	0.0036	0.0027	0.0022
1988	0.08	0.0799	0.0208	0.0068	0.0014
1989	0.12	0.0748	0.0439	0.0039	0.0037
1990	0.13	0.102	0.041	0.0338	0.0042
1991	0.17	0.1566	0.0793	0.064	0.019
1992	0.21	0.1246	0.06	0.052	0.018
1993	0.21	0.1474	0.073	0.0525	0.0232
1994	0.23	0.1537	0.0714	0.0522	0.019
1995	0.24	0.1637	0.079	0.0495	0.017
1996	0.25	0.1595	0.076	0.0462	0.015
1997	0.26	0.1363	0.069	0.034	0.014
1998	0.21	0.1353	0.0657	0.0325	0.014
1999	0.19	0.1333	0.0627	0.0336	0.0153
2000	0.2	0.1361	0.0684	0.0329	0.014
2001	0.23	0.1357	0.0624	0.031	0.013
2002	0.2	0.122	0.0509	0.045	0.011
2003	0.2	0.125	0.0749	0.0331	0.0045
2004	0.19	0.1242	0.0749	0.034	0.0051
2005	0.18	0.12	0.0824	0.023	0.0041
2006	0.2	0.1535	0.0466	0.0307	0.0031
2007	0.19	0.1548	0.0471	0.031	0.0033
2008	0.19	0.1503	0.0502	0.031	0.0043
2009	0.2	0.1608	0.0535	0.0328	0.0049

Source: own calculation based data source explained in table 7.2

APPENDIX C: POVERTY DATA

Table C.1: Headcount poverty, severity of Poverty, Poverty Gap and HDI in overall Poverty in Pakistan

year	Headcount Poverty	Rural Headcount Poverty	Urban Headcount Poverty	Poverty Gap	Rural Poverty Gap	Urban Poverty Gap	Severity of Poverty	Rural Severity of Poverty	Urban Severity of Poverty	HDI
1975	41.43	45.6	37.19	8.21	8.87	7.55	67.4	78.67	57	0.358
1976	38.89	42.14	33.73	7.32	8.64	6.8	53.58	74.64	46.24	0.365
1977	36.15	38.44	29.76	6.43	7.6	5.13	41.34	57.76	26.31	0.37
1978	33.41	36.53	27.3	6.28	6.77	4.66	39.43	45.83	21.71	0.374
1979	30.68	32.51	25.94	5.74	6.43	4.52	32.94	41.34	20.43	0.377
1980	29.86	31.05	24.2	5.47	6.32	4.33	29.92	39.94	18.74	0.387
1981	28.23	31.36	23.33	5.33	6.33	4.21	28.4	40.06	17.72	0.393
1982	26.76	29.55	22.22	5.21	6.12	4.1	27.14	37.45	16.81	0.402
1983	25.45	27.8	22.95	5.19	6.09	4	26.93	37.08	16	0.408
1984	24.3	25.87	21.17	4.98	5.5	3.55	24.8	30.25	12.6	0.415
1985	22.31	23.72	20.53	5.12	5.23	3.65	26.21	27.35	13.32	0.423
1986	19.47	20.2	19.2	4.76	5.3	3.98	22.65	28.09	15.84	0.428
1987	17.32	18.32	16.65	4.25	5.2	3.78	18.06	27.04	14.28	0.437
1988	17.29	19.17	16.12	4.08	4.77	3.65	16.64	22.75	13.32	0.443
1989	20.34	22.44	18.15	3.94	4.7	3.65	15.52	22.09	13.32	0.452
1990	22.1	23.59	18.64	4.12	4.78	3.43	16.97	22.84	11.76	0.458
1991	21.34	23.35	19.5	4.15	4.81	3.21	17.22	23.13	10.3	0.462
1992	22.4	27.35	20.8	4.27	5.6	3.43	18.23	31.36	11.76	0.468
1993	25	29.7	23.1	5.22	6.25	3.74	27.24	39.06	13.98	0.476
1994	27.3	30.2	22.13	5.3	6.01	3.81	28.09	36.12	14.51	0.482

1995	29.5	31.88	22.54	5.04	5.32	3.65	25.4	28.3	13.32	0.489
1996	29.6	31.6	27	4.78	5.25	3.41	22.84	27.56	11.62	0.495
1997	31.2	32.62	28.4	5.75	6.11	3.94	33.06	37.33	15.52	0.497
1998	32.6	35.9	31.7	6.58	7.55	4.27	43.29	57	18.23	0.506
1999	32.14	36.2	30.67	6.62	7.77	4.33	43.82	60.37	18.74	0.511
2000	30.9	34.3	28	6.82	7.81	4.48	46.51	60.99	20.07	0.517
2001	29.17	32.1	25	7.03	8.04	4.55	49.42	64.64	20.7	0.516
2002	28.4	30.71	21.42	6.42	8	4.28	41.21	64	18.31	0.5521
2003	27.43	29.65	20	6.12	7.2	3.6	37.45	51.84	12.96	0.54
2004	23.9	28.1	13.1	6	7.1	3.7	36	50.41	13.69	0.552
2005	22.3	27	12	5.2	6.44	3.15	27.04	41.47	9.92	0.553
2006	20	25.2	11.2	4.92	6.12	3.11	24.2	37.45	9.67	0.555
2007	17.5	21.5	11.1	4.33	6.06	2.91	18.74	36.72	8.46	0.558
2008	19.5	23.8	13.01	5.23	6.4	3.88	27.35	40.96	15.05	0.559
2009	21.5	26.1	15.4	5.32	6.37	3.96	28.3	40.57	15.68	0.556

Table C.2: Headcount Poverty, Severity of Poverty and Poverty Gap in Punjab

year	Urban Headcount Poverty	Rural Headcount Poverty	Headcount Poverty	Urban Headcount Poverty	Rural Poverty Gap	Poverty Gap	Urban Severity of Poverty	Rural Severity of Poverty	Severity of Poverty
1975	31.62	37.98	37.7	6.25	7.34	7.21	39.06	53.88	51.98
1976	31.31	37.8	35.47	5.9	7.2	6.77	34.81	51.84	45.83
1977	31.6	36.12	34.7	4.76	6.94	6.76	22.66	48.16	45.70
1978	29.52	38.75	33.76	4.54	6.65	6.21	20.61	44.22	38.56
1979	30.11	37.32	33.11	4.44	5.51	6.1	19.71	30.36	37.21
1980	29.76	36.6	32.21	4.34	7.1	5.66	18.84	50.41	32.04
1981	28.23	33.1	30.12	4.72	6.44	5.78	22.28	41.47	33.41
1982	27.21	31.1	29.21	4.67	6.39	5.65	21.81	40.83	31.92
1983	25.45	32.9	29.175	4.44	6.36	5.12	19.71	40.45	26.21
1984	25.1	32	28.55	4.27	6.15	5.1	18.23	37.82	26.01
1985	25.02	29.71	27.365	3.96	5.9	4.22	15.68	34.81	17.81
1986	24.19	28.18	26.185	3.78	5.38	5.2	14.29	28.94	27.04
1987	23.21	27.11	25.16	4.1	5.7	4.7	16.81	32.49	22.09
1988	22.32	27.91	25.115	3.97	5.32	4.3	15.76	28.30	18.49
1989	22.1	26.11	24.105	3.78	4.89	4.21	14.29	23.91	17.72
1990	21.98	25.73	23.855	3.77	4.81	3.11	14.21	23.14	9.67
1991	21.71	26.29	22.12	3.92	4.9	3.1	15.37	24.01	9.61
1992	22.21	25.51	24.02	3.41	5.6	4.27	11.63	31.36	18.23
1993	21.24	25.37	24.25	3.71	4.4	4.21	13.76	19.36	17.72
1994	17.01	32.95	28.55	3.22	6.47	5.57	10.37	41.86	31.02
1995	18.1	33.9	29.5	3.45	5.55	5.22	11.90	30.80	27.25
1996	17.88	31.62	26.81	3.76	6.74	5.22	14.14	45.43	27.25

1997	16.61	27.89	24.66	2.6	4.9	4.24	6.76	24.01	17.98
1998	16.9	28.3	25	4.2	5.8	5.82	17.64	33.64	33.87
1999	24.24	34.62	31.62	5.04	7.53	6.81	25.40	56.70	46.38
2000	25.5	36	33	5.19	7.1	6.18	26.94	50.41	38.19
2001	24.6	35.88	33.66	5.43	7.34	6.36	29.48	53.88	40.45
2002	23.33	35.86	32.24	5.23	7.48	6.83	27.35	55.95	46.65
2003	21.4	34.11	30.76	5.04	7.41	5.6	25.40	54.91	31.36
2004	21.05	33.61	29.76	4.11	7.23	4.77	16.89	52.27	22.75
2005	20.6	33.9	29.7	4.2	7.3	6.3	17.64	53.29	39.69
2006	19.34	32.22	27.12	4.3	7.1	6.4	18.49	50.41	40.96
2007	18.38	31.1	24.21	5.2	6.7	5.8	27.04	44.89	33.64
2008	17.32	30.19	23.33	4.4	5.1	5.2	19.36	26.01	27.04
2009	17.23	30.09	23.22	4.3	4.99	5	18.49	24.90	25.00

Table C.3: Headcount Poverty, Severity of Poverty and Poverty Gap in Sindh

year	Urban Headcount Poverty	Rural Headcount Poverty	Headcount Poverty	Urban Headcount Poverty	Rural Poverty Gap	Poverty Gap	Urban Severity of Poverty	Rural Severity of Poverty	Severity of Poverty
1975	23.98	41.55	36.81	5.62	7.77	6.87	31.58	60.37	47.20
1976	23.72	41.68	34.67	5.2	7.45	6.67	27.04	55.50	44.49
1977	22.67	40.33	32.4	4.6	7.21	6.32	21.16	51.98	39.94
1978	20.11	38.9	31.64	4.22	6.87	5.87	17.81	47.20	34.46
1979	20.32	38.34	31	4.31	6.5	5.77	18.58	42.25	33.29
1980	19.76	38.76	31.6	4.32	6.6	5.65	18.66	43.56	31.92
1981	21.29	37.12	29.205	4.21	6.2	5.26	17.72	38.44	27.67
1982	20.36	35.19	27.775	4.1	6.14	5.15	16.81	37.70	26.52
1983	19.21	34.81	27.01	3.6	6.01	5.02	12.96	36.12	25.20
1984	19.01	34	26.505	3.37	5.5	4.24	11.36	30.25	17.98
1985	18.82	33.81	26.315	3.24	5.1	4.3	10.50	26.01	18.49
1986	18.11	31.96	25.035	3.1	5.07	4.6	9.61	25.70	21.16
1987	17.93	29.17	23.55	3.54	4.22	4.8	12.53	17.81	23.04
1988	17.01	29.38	23.195	3.5	4.1	4.13	12.25	16.81	17.06
1989	17	28	22.5	3.12	4	3.5	9.73	16.00	12.25
1990	16.03	27.11	21.57	3.09	3.91	3.99	9.55	15.29	15.92
1991	17.12	28.15	24.1	2.78	4.2	3.43	7.73	17.64	11.76
1992	15.21	29.21	21.1	2.87	4.78	3.74	8.24	22.85	13.99
1993	16.65	28.56	23.29	2.74	5.03	4.02	7.51	25.30	16.16
1994	11.33	30.24	21.5	1.82	5.18	3.63	3.31	26.83	13.18
1995	11.8	31.8	22.6	1.61	4.23	2.9	2.59	17.89	8.41
1996	11.79	27.82	17.88	1.91	4.1	3.6	3.65	16.81	12.96

1997	11.77	19.22	15.39	1.6	3.03	2.29	2.56	9.18	5.24
1998	12	19.6	15.7	2.01	5.8	3.17	4.04	33.64	10.05
1999	15.57	34	26.01	2.79	7.27	5.32	7.78	52.85	28.30
2000	16.1	34.7	26.6	2.11	7.98	6.18	4.45	63.68	38.19
2001	18.6	41.4	29.7	3.14	9.71	6.66	9.86	94.28	44.36
2002	20.06	45.07	35.32	3.32	10.03	7.41	11.02	100.60	54.91
2003	18.54	40.72	32.1	3.12	7.5	5.62	9.73	56.25	31.58
2004	16.8	37	27.6	2.65	5.8	5.71	7.02	33.64	32.60
2005	14.3	28.4	22.4	2.6	5.7	4.4	6.76	32.49	19.36
2006	13.43	27.11	21.56	2.5	5.2	4.2	6.25	27.04	17.64
2007	14.21	26.93	20.9	2.55	6.11	4.08	6.50	37.33	16.65
2008	13.01	25.78	18.11	2.02	5.2	4	4.08	27.04	16.00
2009	12.1	25.88	17.5	1.99	5.3	4.12	3.96	28.09	16.97

Table C.4: Headcount Poverty, Severity of Poverty and Poverty Gap in KP

year	Urban Headcount Poverty	Rural Headcount Poverty	Headcount Poverty	Urban Headcount Poverty	Rural Poverty Gap	Poverty Gap	Urban Severity of Poverty	Rural Severity of Poverty	Severity of Poverty
1975	37.87	48.1	45.7	8.4	9.84	8.12	70.56	96.83	65.93
1976	36.48	47.89	44.51	6.81	9.2	7.54	46.38	84.64	56.85
1977	34.87	45.8	44.7	6.1	7.97	7.32	37.21	63.52	53.58
1978	33.76	44.89	43.1	5.61	7.27	6.97	31.47	52.85	48.58
1979	32.12	44.43	43.72	4.58	7.15	6.77	20.98	51.12	45.83
1980	32.63	44.71	42.77	5.21	6.87	6.87	27.14	47.20	47.20
1981	31.15	42.19	40.32	4.86	6.61	6.2	23.62	43.69	38.44
1982	30.39	42.81	40.91	4.79	6.45	6.01	22.94	41.60	36.12
1983	28.17	40.11	41.11	4.23	6.41	5.65	17.89	41.09	31.92
1984	31.21	39.81	38.15	4.1	6.21	5.44	16.81	38.56	29.59
1985	30.92	37.32	37.91	4	6.1	5.3	16.00	37.21	28.09
1986	29.77	36.28	37	3.81	5.6	5.5	14.52	31.36	30.25
1987	29	37.43	37.32	3.98	5.8	5.2	15.84	33.64	27.04
1988	27.12	38.21	35.11	3.88	5.05	5.04	15.05	25.50	25.40
1989	26.81	35.21	34.18	3.86	5.11	4.66	14.90	26.11	21.72
1990	26.11	35.01	34.01	3.79	5.6	4.12	14.36	31.36	16.97
1991	25.28	34.21	33.2	3.99	4.87	4.5	15.92	23.72	20.25
1992	25.19	34.99	34.07	4.38	5.2	4.76	19.18	27.04	22.66
1993	24.37	34.91	33.62	4.41	4.94	4.87	19.45	24.40	23.72
1994	25.31	38.22	36.37	4.2	6.53	6.19	17.64	42.64	38.32
1995	26.9	40	38.1	5.1	6.67	6.32	26.01	44.49	39.94
1996	26	40.12	39.75	5.55	7.26	7.2	30.80	52.71	51.84

1997	26.92	42.36	40.23	4.51	7.33	6.94	20.34	53.73	48.16
1998	27.2	43.4	41.2	5.19	8.33	7.87	26.94	69.39	61.94
1999	27.13	43.72	41.28	5.66	9.47	8.91	32.04	89.68	79.39
2000	29.2	44.9	42.6	5.3	8.19	7.62	28.09	67.08	58.06
2001	30.1	44.3	41.55	5.19	8.08	7.32	26.94	65.29	53.58
2002	29.18	43.61	41.47	5.22	7.86	7.47	27.25	61.78	55.80
2003	28.76	41.6	40.24	5.2	7.22	5.43	27.04	52.13	29.48
2004	27.51	40.7	39.74	4.2	7.32	5.22	17.64	53.58	27.25
2005	26.5	41.4	38.9	4.9	8.3	4.4	24.01	68.89	19.36
2006	25.21	40.19	36.32	4.44	7.8	4.3	19.71	60.84	18.49
2007	25.01	38.61	32.21	3.9	7.2	4.88	15.21	51.84	23.81
2008	24.71	37.77	30.9	3.11	7.11	5.2	9.67	50.55	27.04
2009	23.77	37.43	29.21	3.03	6.88	5.3	9.18	47.33	28.09

Table C.5: Headcount Poverty, Severity of Poverty and Poverty Gap in Balochistan

Year	Urban Headcount Poverty	Rural Headcount Poverty	Headcount Poverty	Urban Headcount Poverty	Rural Poverty Gap	Poverty Gap	Urban Severity of Poverty	Rural Severity of Poverty	Severity of Poverty
1975	36.52	47.9	40.01	7.77	8.54	7.59	60.37	72.93	57.61
1976	35.75	46.81	40.65	6.19	8.7	7.1	38.32	75.69	50.41
1977	34.84	45.89	37.93	5.72	7.43	6.43	32.72	55.20	41.34
1978	33.84	44.65	36.76	5.32	7.32	6.79	28.30	53.58	46.10
1979	34.21	43.21	36.97	5.44	6.8	6.58	29.59	46.24	43.30
1980	34.72	42.7	37.5	5.71	7.3	6.54	32.60	53.29	42.77
1981	32.75	40.17	34	4.92	6.43	6.1	24.21	41.34	37.21
1982	30.19	38.26	33.1	4.54	6.39	5.9	20.61	40.83	34.81
1983	29.12	37.55	29.1	4.01	6.35	5.43	16.08	40.32	29.48
1984	28.87	36.32	29.39	3.92	6.2	5.21	15.37	38.44	27.14
1985	27.9	34.11	28.17	3.72	5.4	5.1	13.84	29.16	26.01
1986	25.32	35.31	27.11	3.63	5.21	5.3	13.18	27.14	28.09
1987	24.01	33.21	29.71	3.58	5.7	5.19	12.82	32.49	26.94
1988	23.91	32.9	27.23	3.43	5.41	5.16	11.76	29.27	26.63
1989	23.72	28.32	27.21	3.98	5.01	4.41	15.84	25.10	19.45
1990	21.1	27.21	26.91	3.77	4.79	4.07	14.21	22.94	16.56
1991	25.21	27	26.11	4.2	4.98	4.23	17.64	24.80	17.89
1992	26.21	26.04	24.2	4.54	5.76	5.21	20.61	33.18	27.14
1993	30.44	26.21	26.77	4.82	4.28	4.35	23.23	18.32	18.92
1994	15.62	36.75	34.36	2.14	6.72	6.2	4.58	45.16	38.44
1995	16.8	37.9	33.5	3.1	7.22	6.6	9.61	52.13	43.56
1996	18.65	39.8	35.71	3.54	8.19	7.32	12.53	67.08	53.58

1997	22.98	41.61	37.69	3.53	8.02	7.07	12.46	64.32	49.98
1998	23	42.5	38.4	4.11	5.83	4.43	16.89	33.99	19.62
1999	22.94	21.34	38.55	3.95	3.76	3.79	15.60	14.14	14.36
2000	24.3	22.5	36.8	4.11	4.12	4.12	16.89	16.97	16.97
2001	25.72	21.4	31.53	4.46	5.78	5.21	19.89	33.41	27.14
2002	26.18	37.45	35.49	4.52	6.86	6.03	20.43	47.06	36.36
2003	24.71	36.5	34.54	4.21	6.44	5.5	17.72	41.47	30.25
2004	23.6	35.7	34	4.47	5.7	4.65	19.98	32.49	21.62
2005	22.4	33.9	33.1	4.4	7.4	6.8	19.36	54.76	46.24
2006	21.11	32.12	34.21	4.2	4.3	6.2	17.64	18.49	38.44
2007	21	32.1	29.09	4.01	5.4	5.2	16.08	29.16	27.04
2008	20.1	28.1	25.22	3.33	4.1	4.2	11.09	16.81	17.64
2009	20	29.2	25	3.35	4.3	4.2	11.22	18.49	17.64

APPENDIX D: DETERMINANTS OF SEVERITY OF POVERTY

Table d.1: the Determinants of Severity of Poverty

Model : GMM IV		
Dependant Variable	**Severity of Poverty (1)**	**Severity of Poverty (2)**
Fiscal Decentralisation (Exp) 1	-0.222**	
	(0.0862)	
Fiscal Decentralisation (Exp) 2		-0.267***
		(0.0972)
Government Size	0.00517	0.0124
	(0.011)	(0.0102)
Pro-poor Expenditure □	-0.3716***	-0.3567***
	(0.0668)	(0.0631)
Gini Coefficient	7.525***	7.246***
	(2.834)	(2.376)
Corruption Index	0.1508**	0.0754*
	(0.0712)	(0.0696)
Rule of Law	-0.5874**	-0.484)**
	(0.2478)	(0.2089)
Interaction term(Fiscal Decentralisation*Devolution Reform Dummy)	-0.0288 (0.1336)	0.0484 (0.0785)
Misery Index	-0.00004*	-0.00053
	(0.002)	(0.0019)
Constant	.021**	1.8411*
	(0.9509)	(0.8152)
R-squared	0.88	0.87
Adj R-squared	0.76	0.74

Robust Standard Error are in parentheses
Instrumental Variable used: Income of bottom 20% of the population

Instrumented Variable: Gini coefficient

□ variable expressed in logarithm

APPENDIX E: CORRELATION MATRIX OF SELECTED VARIABLES

Table E.1: Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1)	1														
(2)	0.98	1.00													
(3)	0.91	0.86	1.00												
(4)	0.87	0.89	0.73	1.00											
(5)	0.74	0.80	0.56	0.93	1.00										
(6)	0.81	0.79	0.74	0.76	0.68	1.00									
(7)	0.85	0.84	0.78	0.82	0.72	0.95	1.00								
(8)	0.83	0.83	0.74	0.82	0.78	0.96	0.98	1.00							
(9)	0.72	0.70	0.69	0.68	0.57	0.92	0.95	0.94	1.00						
(10)	-0.50	-0.40	-0.63	-0.21	-0.05	-0.66	-0.65	-0.61	-0.68	1.00					
(11)	-0.52	-0.43	-0.75	-0.25	-0.05	-0.35	-0.36	-0.32	-0.36	0.62	1.00				
(12)	-0.79	-0.74	-0.84	-0.63	-0.46	-0.58	-0.58	-0.55	-0.50	0.44	0.80	1.00			
(13)	0.08	0.18	-0.06	0.25	0.29	-0.20	-0.18	-0.17	-0.25	0.71	0.12	-0.18	1.00		
(14)	0.08	0.16	-0.01	0.18	0.20	-0.26	-0.24	-0.24	-0.31	0.66	-0.02	-0.27	0.96	1.00	
(15)	-0.42	-0.32	-0.55	-0.14	0.02	-0.62	-0.60	-0.56	-0.65	0.99	0.55	0.35	0.77	0.72	1.00
(16)	-0.40	-0.28	-0.57	-0.08	0.07	-0.43	-0.45	-0.41	-0.46	0.92	0.74	0.45	0.65	0.56	0.90
(17)	0.37	0.27	0.49	0.10	-0.05	0.60	0.59	0.55	0.65	-0.98	-0.50	-0.29	-0.80	-0.75	-0.99
(18)	0.40	0.30	0.51	0.13	-0.02	0.64	0.61	0.58	0.68	-0.98	-0.48	-0.29	-0.78	-0.75	-0.99
(19)	-0.34	-0.24	-0.50	-0.05	0.10	-0.57	-0.54	-0.50	-0.61	0.97	0.56	0.32	0.78	0.72	0.98
(20)	-0.53	-0.42	-0.62	-0.26	-0.12	-0.69	-0.68	-0.65	-0.70	0.99	0.56	0.41	0.72	0.69	0.99
(21)	-0.49	-0.48	-0.37	-0.64	-0.65	-0.56	-0.54	-0.56	-0.38	0.22	0.06	0.36	0.06	0.15	0.18
(22)	-0.06	-0.15	0.25	-0.34	-0.47	0.13	0.08	0.04	0.25	-0.64	-0.57	-0.16	-0.53	-0.41	-0.65
(23)	-0.40	-0.28	-0.61	-0.05	0.14	-0.37	-0.38	-0.33	-0.40	0.88	0.83	0.52	0.56	0.43	0.86
(24)	0.48	0.43	0.47	0.41	0.35	0.59	0.52	0.54	0.56	-0.33	-0.25	-0.44	0.04	0.02	-0.30
(25)	0.12	0.18	0.00	0.10	0.07	0.33	0.23	0.25	0.36	-0.02	0.17	-0.01	0.12	0.08	-0.02
(26)	-0.40	-0.29	-0.52	-0.11	0.04	-0.61	-0.59	-0.55	-0.64	0.99	0.54	0.32	0.78	0.73	1.00
(27)	-0.45	-0.33	-0.61	-0.15	0.02	-0.58	-0.57	-0.53	-0.60	0.99	0.67	0.43	0.72	0.65	0.98

(28)	-0.29	-0.25	-0.19	-0.22	-0.21	-0.60	-0.58	-0.59	-0.58	0.64	-0.11	-0.09	0.68	0.75	0.68
(29)	0.29	0.16	0.54	-0.07	-0.26	0.26	0.26	0.20	0.30	-0.83	-0.85	-0.48	-0.54	-0.40	-0.80
(30)	-0.51	-0.40	-0.64	-0.25	-0.08	-0.60	-0.59	-0.55	-0.58	0.95	0.68	0.47	0.67	0.61	0.93
(31)	0.34	0.25	0.48	0.02	-0.12	0.56	0.51	0.48	0.59	-0.95	-0.52	-0.25	-0.74	-0.68	-0.96
(32)	-0.36	-0.24	-0.56	-0.05	0.12	-0.44	-0.44	-0.40	-0.47	0.94	0.75	0.43	0.69	0.59	0.93
(33)	-0.31	-0.21	-0.58	0.06	0.26	-0.28	-0.27	-0.21	-0.32	0.79	0.77	0.45	0.53	0.39	0.77
(34)	0.39	0.49	0.19	0.40	0.45	0.17	0.15	0.19	0.10	0.34	0.05	-0.28	0.69	0.67	0.41
(35)	0.31	0.38	0.20	0.38	0.42	-0.11	-0.06	-0.03	-0.20	0.48	-0.06	-0.29	0.78	0.79	0.56
(36)	-0.21	-0.30	-0.18	-0.31	-0.32	0.06	0.02	0.00	0.04	-0.45	0.20	0.40	-0.83	-0.83	-0.54
(37)	-0.45	-0.35	-0.58	-0.16	0.01	-0.62	-0.62	-0.58	-0.66	0.99	0.59	0.38	0.73	0.68	0.99
(38)	-0.45	-0.35	-0.54	-0.19	-0.04	-0.67	-0.66	-0.63	-0.71	0.98	0.50	0.34	0.75	0.72	0.99
(39)	-0.40	-0.40	-0.27	-0.59	-0.67	-0.28	-0.31	-0.35	-0.09	-0.07	-0.18	0.12	-0.02	0.06	-0.09
(40)	-0.26	-0.14	-0.45	0.03	0.19	-0.45	-0.44	-0.39	-0.50	0.95	0.57	0.27	0.83	0.76	0.97
(41)	-0.59	-0.52	-0.60	-0.42	-0.30	-0.82	-0.81	-0.79	-0.81	0.92	0.40	0.39	0.64	0.65	0.91
(42)	-0.51	-0.43	-0.60	-0.26	-0.13	-0.72	-0.71	-0.69	-0.76	0.95	0.52	0.40	0.69	0.65	0.95

	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28	(29)	(30)
(16)	1														
(17)	-0.88	1.00													
(18)	-0.84	1.00	1.00												
(19)	0.88	-0.99	-0.98	1.00											
(20)	0.90	-0.98	-0.97	0.96	1.00										
(21)	0.14	-0.16	-0.18	0.14	0.28	1.00									
(22)	-0.63	0.65	0.65	-0.72	-0.55	0.36	1.00								
(23)	0.97	-0.82	-0.80	0.85	0.84	0.04	-0.70	1.00							
(24)	-0.15	0.28	0.32	-0.27	-0.33	-	0.25	-0.16	1.00						
(25)	0.28	0.07	0.13	-0.07	0.01	0.17	0.13	0.23	0.38	1.00					
(26)	0.90	-1.00	-0.99	0.99	0.98	0.17	-0.66	0.85	-0.29	-0.04	1.00				
(27)	0.96	-0.96	-0.95	0.97	0.98	0.20	-0.66	0.92	-0.28	0.08	0.98	1.00			
(28)	0.40	-0.72	-0.74	0.65	0.70	0.36	-0.12	0.27	-0.22	-0.27	0.69	0.57	1.00		
(29)	-0.94	0.77	0.74	-0.81	-0.77	0.06	0.77	-0.98	0.12	-0.22	-0.80	-0.88	-0.16	1.00	
(30)	0.95	-0.91	-0.89	0.90	0.95	0.30	-0.52	0.90	-0.23	0.16	0.93	0.97	0.54	-0.85	1.00
(31)	-0.85	0.96	0.96	-0.96	-0.93	-	0.75	-0.82	0.31	0.15	-0.96	-0.93	-0.63	0.79	-0.86
(32)	0.98	-0.91	-0.88	0.92	0.91	0.10	-0.71	0.96	-0.16	0.17	0.93	0.97	0.42	-0.95	0.95
(33)	0.82	-0.73	-0.72	0.78	0.72	-	-0.80	0.90	-0.11	0.08	0.76	0.81	0.15	-0.92	0.75
(34)	0.44	-0.42	-0.38	0.40	0.34	0.01	-0.38	0.36	0.26	0.54	0.41	0.41	0.20	-0.38	0.38
(35)	0.38	-0.61	-0.60	0.59	0.48	-	-0.53	0.30	0.00	-0.12	0.57	0.48	0.52	-0.31	0.38
(36)	-0.37	0.57	0.56	-0.53	-0.50	-	0.23	-0.28	-0.07	-0.13	-0.55	-0.47	-0.67	0.23	-0.43
(37)	0.92	-0.98	-0.98	0.97	0.98	0.17	-0.65	0.87	-0.28	-0.01	0.99	0.98	0.64	-0.82	0.93
(38)	0.86	-0.99	-0.99	0.97	0.98	0.23	-0.60	0.80	-0.30	-0.09	0.99	0.95	0.73	-0.73	0.91
(39)	-0.06	0.13	0.13	-0.19	0.04	0.66	0.63	-0.17	0.00	0.43	-0.12	-0.07	0.18	0.28	0.06
(40)	0.93	-0.97	-0.95	0.97	0.94	0.09	-0.72	0.88	-0.20	0.09	0.97	0.97	0.58	-0.86	0.92
(41)	0.76	-0.92	-0.93	0.88	0.95	0.41	-0.38	0.68	-0.38	-0.13	0.92	0.88	0.81	-0.57	0.85
(42)	0.80	-0.95	-0.97	0.94	0.95	0.23	-0.59	0.75	-0.41	-0.22	0.95	0.91	0.75	-0.68	0.86

	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)
(31)	1											
(32)	-0.89	1.00										
(33)	-0.78	0.86	1.00									
(34)	-0.33	0.46	0.32	1.00								
(35)	-0.56	0.46	0.33	0.75	1.00							
(36)	0.49	-0.41	-0.18	-0.66	-0.71	1.00						
(37)	-0.96	0.93	0.78	0.38	0.52	-0.48	1.00					
(38)	-0.95	0.88	0.70	0.37	0.56	-0.50	0.98	1.00				
(39)	0.24	-0.15	-0.29	-0.05	-0.32	-0.06	-	-0.08	1.00			
(40)	-0.93	0.95	0.80	0.56	0.64	-0.58	0.96	0.94	-0.16	1.00		
(41)	-0.84	0.77	0.53	0.23	0.45	-0.47	0.91	0.94	0.12	0.82	1.00	
(42)	-0.92	0.84	0.66	0.23	0.51	-0.45	0.94	0.96	-0.10	0.88	0.94	1.00

Definitions of Variables

1	Overall Poverty	**15**	Total Population	**29**	Age Dependency Ratio
2	Rural Poverty	**16**	Per Capita Health Expenditure	**30**	Pro-poor expenditures (Per Capita)
3	Urban Poverty	**17**	Infant Mortality Rate	**31**	Fertility Rate
4	Overall poverty Gap	**18**	bottom 20% population share in National Income	**32**	Agriculture Value Addition, Per Capita
5	Rural Poverty Gap	**19**	Gini-Coefficient	**33**	Devolution Reform, Dummy
6	Urban Poverty Gap	**20**	Per Capita GDP	**34**	Misery Index (CPI +Unemployment Rate
7	Overall Severity of Poverty	**21**	Trade Openness	**35**	Unemployment Rate
8	Severity of Poverty, Rural	**22**	Government Size	**36**	Workers' Remittances
9	Severity of Poverty, Urban	**23**	Per Capita Subsidies cons	**37**	Urban Population (%)

10	Human Development Index	**24**	Corruption Index	**38**	Life Expectancy at Birth
11	Expenditure Decentralisation (1)	**25**	Consumer Price Index	**39**	Pupil-Teacher-Ratio
12	Expenditure Decentralisation (1)	**26**	Population Density	**40**	Female secondary School Enrolment (Net)
13	Revenue Decentralisation (1)	**27**	Literacy Rate	**41**	Agriculture Machinery, Per Capita
14	Revenue Decentralisation (2)	**28**	Per Capita Primary School	**42**	Fertilizer Consumption, Per Capita

Table E.2: Correlation Matrix Table of Variables for Panel Analysis

	(1)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	1																		
2	0.78	1.00																	
3	0.94	0.67	1.00																
4	0.62	0.48	0.69	1.00															
5	0.46	0.28	0.55	0.84	1.00														
6	0.66	0.62	0.71	0.79	0.54	1.00													
7	0.52	0.31	0.60	0.54	0.46	0.53	1.00												
8	0.32	0.09	0.40	0.45	0.44	0.25	0.91	1.00											
9	0.50	0.26	0.57	0.39	0.41	0.23	0.87	0.90	1.00										
10	-0.49	-0.48	-0.48	-0.22	0.10	-0.29	-0.37	-0.27	-0.33	1.00									
11	-0.56	-0.44	-0.57	-0.33	-0.01	-0.35	-0.46	-0.36	-0.41	0.92	1.00								
12	-0.45	-0.42	-0.39	-0.11	0.20	-0.30	-0.19	-0.10	-0.11	0.65	0.65	1.00							
13	-0.42	-0.36	-0.33	-0.09	0.14	-0.27	-0.14	-0.07	-0.04	0.57	0.53	0.95	1.00						
14	-0.55	-0.64	-0.51	-0.43	-0.10	-0.78	-0.19	0.12	0.06	0.42	0.35	0.40	0.36	1.00					
15	-0.56	-0.58	-0.55	-0.42	-0.22	-0.60	-0.20	0.00	-0.09	0.51	0.36	0.30	0.32	0.76	1.00				
16	-0.48	-0.55	-0.43	-0.27	0.07	-0.70	-0.18	0.14	0.07	0.33	0.33	0.44	0.36	0.91	0.51	1.00			
17	-0.43	-0.63	-0.39	-0.48	-0.30	-0.54	-0.16	-0.05	-0.06	0.48	0.28	0.20	0.23	0.64	0.83	0.33	1.00		
18	-0.17	-0.41	-0.17	-0.46	-0.45	-0.48	-0.09	-0.03	-0.02	0.07	-0.07	-0.11	-0.06	0.41	0.63	0.14	0.79	1.00	
19	0.09	-0.18	0.08	-0.16	-0.22	-0.22	0.18	0.23	0.24	-0.13	-0.25	-0.24	-0.19	0.25	0.34	0.07	0.46	0.61	1.00
20	-0.15	-0.20	-0.21	-0.24	-0.32	-0.19	-0.23	-0.27	-0.26	0.06	-0.03	-0.24	-0.18	0.03	0.45	-0.19	0.50	0.55	0.28
21	-0.26	-0.29	-0.31	-0.36	-0.42	-0.27	-0.22	-0.24	-0.27	0.09	-0.03	-0.27	-0.20	0.17	0.58	-0.12	0.67	0.71	0.35
22	-0.48	-0.62	-0.42	-0.25	0.02	-0.52	-0.02	0.22	0.11	0.48	0.32	0.37	0.35	0.79	0.77	0.61	0.77	0.43	0.28
23	-0.12	0.24	-0.21	-0.10	-0.28	0.17	-0.20	-0.27	-0.32	-0.13	0.06	-0.17	-0.18	-0.47	-0.41	-0.35	-0.49	-0.43	-0.34
24	-0.43	-0.62	-0.43	-0.54	-0.24	-0.64	-0.12	0.00	0.00	0.57	0.48	0.53	0.49	0.68	0.70	0.49	0.77	0.59	0.32
25	-0.42	-0.34	-0.38	-0.13	0.12	-0.14	-0.20	-0.21	-0.22	0.63	0.66	0.90	0.83	0.12	0.14	0.15	0.11	-0.18	-0.32
26	0.41	0.46	0.48	0.74	0.69	0.69	0.19	0.11	0.07	-0.12	-0.16	-0.09	-0.13	-0.45	-0.51	-0.23	-0.56	-0.61	-0.47

27	0.04	0.34	-0.03	0.09	-0.04	0.28	-0.17	-0.27	-0.29	-0.21	0.02	-0.10	-0.18	-0.56	-0.69	-0.31	-0.73	-0.65	-0.52
28	-0.50	-0.71	-0.45	-0.38	-0.06	-0.70	-0.21	0.00	-0.03	0.55	0.43	0.58	0.55	0.86	0.78	0.74	0.77	0.58	0.29
29	-0.31	-0.60	-0.30	-0.46	-0.17	-0.56	-0.11	-0.04	0.01	0.49	0.35	0.51	0.48	0.62	0.64	0.44	0.81	0.64	0.35
30	0.28	0.21	0.30	0.26	0.28	0.49	0.39	0.19	0.19	0.13	0.10	0.06	0.02	-0.42	-0.33	-0.40	-0.16	-0.29	-0.11
31	-0.30	-0.59	-0.26	-0.26	-0.15	-0.37	-0.14	-0.03	-0.08	0.44	0.23	0.10	0.11	0.48	0.70	0.23	0.82	0.72	0.34
32	-0.52	-0.51	-0.43	-0.18	0.15	-0.32	-0.14	-0.06	-0.09	0.73	0.70	0.95	0.89	0.44	0.39	0.42	0.34	-0.02	-0.17
33	-0.48	-0.60	-0.40	-0.26	0.05	-0.36	-0.13	-0.01	-0.06	0.83	0.67	0.57	0.55	0.60	0.66	0.41	0.70	0.26	0.11
34	-0.60	-0.61	-0.55	-0.29	0.08	-0.56	-0.24	-0.07	-0.13	0.68	0.66	0.83	0.75	0.68	0.59	0.68	0.44	0.15	-0.07
35	0.00	-0.25	-0.02	-0.41	-0.40	-0.46	0.06	0.10	0.19	-0.08	-0.17	-0.02	0.03	0.41	0.41	0.22	0.58	0.80	0.63
36	-0.55	-0.40	-0.49	-0.03	0.28	-0.41	-0.32	-0.09	-0.20	0.52	0.57	0.78	0.69	0.57	0.33	0.72	0.04	-0.23	-0.31

	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
20	1.00																
21	0.87	1.00															
22	0.14	0.32	1.00														
23	-0.11	-0.15	-0.49	1.00													
24	0.14	0.26	0.65	-0.49	1.00												
25	-0.17	-0.23	0.19	-0.02	0.45	1.00											
26	-0.30	-0.39	-0.31	0.22	-0.70	-0.07	1.00										
27	-0.33	-0.42	-0.64	0.82	-0.62	0.05	0.45	1.00									
28	0.22	0.30	0.77	-0.56	0.84	0.38	-0.50	-0.65	1.00								
29	0.24	0.34	0.65	-0.56	0.90	0.41	-0.58	-0.64	0.86	1.00							
30	-0.09	-0.19	-0.14	0.11	-0.08	0.24	0.29	0.19	-0.29	-0.06	1.00						
31	0.52	0.61	0.65	-0.45	0.61	0.04	-0.37	-0.70	0.66	0.65	-0.07	1.00					
32	-0.16	-0.18	0.46	-0.20	0.63	0.90	-0.19	-0.20	0.65	0.58	0.11	0.23	1.00				
33	0.08	0.18	0.73	-0.37	0.71	0.47	-0.27	-0.51	0.68	0.67	0.11	0.59	0.69	1.00			
34	0.04	0.01	0.57	-0.29	0.68	0.70	-0.32	-0.32	0.82	0.64	-0.10	0.34	0.88	0.64	1.00		
35	0.15	0.30	0.34	-0.45	0.60	-0.13	-0.67	-0.60	0.53	0.65	-0.28	0.44	0.02	0.16	0.13	1.00	
36	-0.25	-0.29	0.38	-0.08	0.28	0.61	0.07	0.01	0.56	0.22	-0.24	0.00	0.73	0.37	0.82	-0.20	1.00

Definitions of Variables

1	Overall Poverty	**13**	Revenue Decentralisation (2)	**25**	MCWC
2	Urban Poverty	**14**	Per Capita GDP	**26**	Rural health facilities
3	Rural Poverty	**15**	Per Capita Agri. value addition	**27**	Crude Death Rate
4	Overall poverty Gap	**16**	Per Capita Manu value addition	**28**	Literacy Rate
5	Rural Poverty Gap	**17**	per capita health expenditure	**29**	Gross Enrolment (total)

6	Urban Poverty Gap	**18**	Pro-poor expenditures	**30**	Pupil Teacher Ratio
7	Overall Severity of Poverty	**19**	Per capita Subsidies	**31**	Economic Reform Dummy
8	Severity of Poverty, Rural	**20**	PCCE	**32**	Total Population
9	Severity of Poverty, Urban	**21**	Per capita Development exp	**33**	Per Cap. Gross Fixed C. Formation
10	Expenditure Decentralisation (1)	**22**	Per capita Own revenue	**34**	Per capita fertilizer consumption
11	Expenditure Decentralisation (2)	**23**	Infant mortality rate	**35**	Per Capita Education Expenditure
12	Revenue Decentralisation (1)	**24**	Life expectancy at birth	**36**	Punjab/Sindh Dummy

APPENDIX F: MUTIPLE DEPRIVATION INDEX INDICATORS

Table G.1: Variables Used To Calculate Sectoral Deprivations

Education
Illiteracy Rate (10 years and above) – Female
Illiteracy Rate (10 years and above) – Male
Out of School Children (5-9 Years) – Female
Out of School Children (5-9 Years) – Male
Housing Quality and Congestion
Percentage of Non-Owner Households
Percentage of Homeless Population***
Inadequate Material Used in Roof
Inadequate Material Used in Wall
Households with no Bathroom Facility***
Household with no Kitchen Facility***
Households with no Latrine Facility
Housing Units with One Room
Persons Per Room
Residential Housing Services
Un-electrified Households
Households not using Cooking Gas
Households with no Inside Piped Water Connection
Households with no Telephone (landline) Connection**
Employment
Unemployment Rate [15-65 years].
Employed Labour Force in Non-Manufacturing Sectors
*** These indicators are not available in PSLM survey 2005. ** This indicator is not available in the Census 1998 **Source:** Indices Of Multiple Deprivations 2005, SPDC (2007)

Table F.2: Variables Used to Determine Sectoral Allocation Public Resources

1	Police	7	Agriculture
2	Public health	8	Irrigation
3	Social Services	9	Rural Development
4	Education	10	Transport and Communication
5	Health	11	Civil Work
6	Social Security and Welfare		

Table F.2: Correlation Matrix

	A	B	C	D	E	F	G	H	I	J	K	L	M
A	1.000												
B	0.2248*	1.000											
	0.009												
C	0.4501*	0.4243*	1.000										
	0.000	0.000											
D	0.6780*	0.3879*	0.7502*	1.000									
	0.000	0.000	0.000										
E	0.3337*	-0.145	-0.008	0.2818*	1.000								
	0.000	0.093	0.928	0.001									
F	-0.255*	0.2889*	-0.394*	-0.335*	-0.113	1.000							
	0.003	0.001	0.000	0.000	0.192								
G	0.5976*	0.035	0.2729*	0.4664*	0.2458*	-0.400*	1.000						
	0.000	0.683	0.001	0.000	0.004	0.000							
H	0.2210*	-0.312*	-0.074	0.182*	0.176*	-0.541*	0.4936*	1.000					
	0.010	0.000	0.394	0.034	0.039	0.000	0.000						
I	0.2860*	-0.021	0.1782*	0.2123*	0.052	-0.534*	0.5558*	0.7198*	1.000				
	0.001	0.807	0.038	0.013	0.548	0.000	0.000	0.000					
J	0.6609*	0.039	0.2920*	0.5014*	0.2962*	-0.538*	0.6907*	0.7406*	0.7586*	1.000			
	0.000	0.655	0.001	0.000	0.001	0.000	0.000	0.000	0.000				
K	0.4495*	0.066	0.2899*	0.3871*	0.090	-0.560*	0.5132*	0.6750*	0.8820*	0.8693*	1.000		
	0.000	0.447	0.001	0.000	0.297	0.000	0.000	0.000	0.000	0.000			
L	0.5145*	0.2357*	0.4432*	0.5256*	0.151	-0.423*	0.5225*	0.5465*	0.6891*	0.8334*	0.8348*	1.000	
	0.000	0.006	0.000	0.000	0.079	0.000	0.000	0.000	0.000	0.000	0.000		
M	0.2881*	0.021	0.2691*	0.2272*	-0.015	-0.283*	0.2291*	0.3101*	0.4503*	0.4797*	0.5576*	0.5426*	1.000
	0.001	0.811	0.002	0.008	0.861	0.001	0.007	0.000	0.000	0.000	0.000	0.000	

* shows 5% level of significance

Variables Definition

A =	Devolution reform (dummy)	H =	Public Health Expenditure*
B =	Population (in millions)	I =	Social Sector Expenditure*
C =	Per Capita GDP	J =	Education Expenditure*
D =	Agri. Value Add*	K =	Health Expenditure*
E =	Civil Work *	L =	Irrigation Expenditure*
F =	Population Per Bed	M =	Rural Development Expenditure*
G =	Welfare Expenditure*		

*Variables are expressed in Per Capita terms

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