Impact of Leadership Transitions and Economic Policy Uncertainty on Economic Growth: The Case of Pakistan

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Dedicated to my loving parents

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All praise is to Almighty Allah Who showered His countless blessing upon us and opened new horizons of knowledge for mankind. All respect goes to the Holy Prophet (PBUH), who our enlightened conscience with the essence of faith in Allah.

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Acronyms and Abbreviations

GMM   Generalized Method of Moments

RPE   Relative Political Extraction

WB   World Bank

IMF   International Monetary Fund

GFCF   Gross fixed capital formation

WDI   World Development Indicators

SBP   State Bank of Pakistan

GOP   Government of Pakistan

NFC   National Finance Commission

SAP   Structural Adjustment Programme

ADP   Annual Development Program

HDI   Human Development Index

PPP   Pakistan People's Party

AUTOC   Autocracy

DEMO   Democracy

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Abstract

Emphasizing the role of political leaders in shaping economic policies and their influence on economic growth of Pakistan, this study is an attempt to explain the effects of economic policy uncertainty linked with political regimes on key macroeconomic indicators including private investment, unemployment and inflation. Empirical analysis has been conducted by using Generalized method of moments (GMM) and data from 1972-2011. It has been concluded that policy uncertainty, as measured by lack of capability of government to extract tax revenues and use them for public gains, is detrimental for sustainable economic growth of economy. It creates an uncertain environment for investors and is also responsible for stagflation at certain time periods. It has also been concluded that military regimes devised short term policies which created short term economic boom, followed by recession in democratic regimes. Hence, both democratic and military regimes are responsible for inefficient resource mobilization. There is a need to establish better democratic institutions because this is the only way to move towards sustainable economic growth.

Chapter 1: Introduction

1.1 Background

It is well recognized that both economic and political factors play a critical role in the process of economic growth. Among the political factors, one of the most important determinants is political instability that impacts economic growth through many channels. Although political regime type affects the economic outcomes in a significant manner but a more pertinent question is how leadership transitions affect the level of economic growth. The main driving force is the delaying or discontinuing policies that create uncertain environment for economic activities.

Political instability leads to higher policy uncertainty and hence lowers economic growth. Extended tenure of a political leader is associated with stability and long-term development projects while short time period allows the leaders to choose inefficient policies affecting major macroeconomic variables such as investment, inflation and unemployment (Alesina and Tabellini 1989; Alesina et al 1996; Ali 2001; Jones and Olken 2004; Aisen and Veiga 2011).

Frequently changing governments and economic policy uncertainty affect economic activities in many ways. Firstly, in uncertain situations, firms delay their investment decisions as investors are reluctant to accumulate fixed capital for their businesses, which affect production level[1]. On the other hand, policy uncertainty affects consumption and saving behavior of households. Hence, on average, investment level tends to decline. Accumulation of physical capital which is required for technological improvement and economic growth, is hampered due to uncertain business environment because of investor's short term outlook. Investors delay their decisions to avoid sunk costs which arise due to irreversible investment (Dixit and Pindyck 1994; Abel and

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[1] Literature has also highlighted the positive impact of policy uncertainty on investment activities (Hartman 1972; Pindyck 1982). The results mainly differ due to different assumptions and model specification.

Eberly 1996; Feng 2001). Further, market demand is also affected by change in short term investment decisions arising from uncertainty because in the long run, investment incurs sunk cost (Bernanke1983).

Secondly, monetary policy uncertainty affects economic growth in a negative way (Taylor 1981; kormendi and Meguire 1985). The effects of inflation uncertainty are ambiguous on business activities (Feng 2001). According to Mundell –Tobin effect, a rise in inflation causes real interest rate to be low. So, there will be an increase in investment. However, with falling real incomes, people are unable to save, hence investment will also be low. If economic activities are showing slump, due to policy uncertainty, firms will anticipate a high inflation rate in future (Istrefi and Piloiu 2014). This further decreases investment level.

Thirdly, due to increased policy uncertainty, there is a decline in aggregate demand which may cause recessions and during recessions, unemployment level is high (Leduc and Liu 2012). Aggregate uncertainty shocks have an immediate positive but short term impact on unemployment through "wait and see" [2] mechanism while sectoral uncertainty raises unemployment persistently by requiring inter-industry reallocation of labor (Choi and Loungani 2015). Rational hiring decisions of firms are also affected by economic policy uncertainty. As the investors during this period are reluctant to make investments so, the production is also lowered and labor demand is reduced (Anderson 2014).

1.1.1 Political Performance and Economic Growth; A Theoretical Link

Politics can be a major determinant of economic growth of a country as political leaders pursue their desirable policy outcomes with political stability (Snider 1996). The link between political capacity and economic growth establishes that governments with stable and high levels of political capacity are more likely to intervene or influence policy that fosters economic growth (Leblang 1997), lowers inflation (Alacazar 1997), and boosts private investment (Feng 2001). Moreover, it increases the ability of the government to pursue a range of policies at all levels (Snider 1997).

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[2] This channel can be explained through firm's expectations about prevailing economic policy uncertainty. This analysis used value-functional model with assumption that investors tend to optimize value of businesses.

The performance of a leader can be judged by looking at development level in that country. Development projects are launched by focusing on a considerable pool of savings. Taxes are the best way of extracting resources from the public and utilizing these resources for public gains i.e. providing public goods. Now, the achieved development level shows the performance of existing leader in the form of policy outcomes. If resources are invested in profitable projects, tax revenue collection will be high which also shows that government is consistent towards its job and economic policy uncertainty will be low. Hence, a political regime showing consistency in policies will be able to mobilize the required resources for development.

Figure 1.1 Relationship between Political Performance and Economic Growth
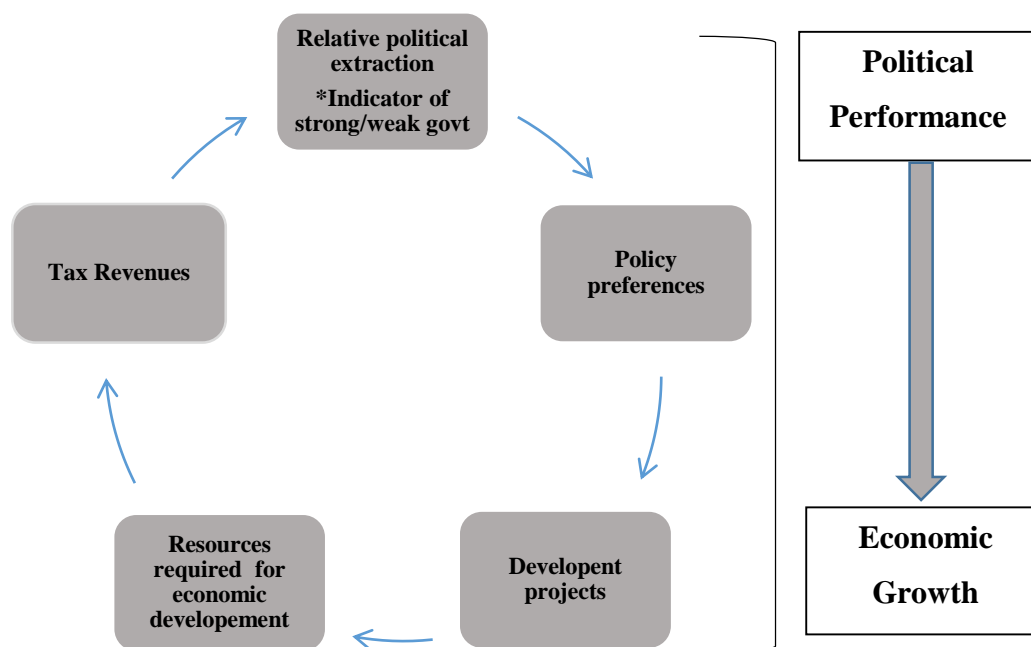
  Source: Author

There are different hypothesis that whether democratic or autocratic governments generate more tax revenues. According to first hypothesis, Levi (1988) argued that democracies can extract more tax revenues through the channel of quasi-voluntary

compliance[3] as it avoids the compliance costs thus building a link between government and public. When this link is strong, costs of implementation of tax laws is reduced. Democracies have higher extractive capacity as compared to autocracies in developing countries as democracies are elected by public choice.

An alternative hypothesis is that dictators have more capacity to extract resources than democrats. Przeworski (1990), Findlay (1990), and Olson (1991) argues that dictators decide about the size of government. In these models, democratic government, decided through voting mechanism, is considered as ideal because governments are agents of public. The tax revenues differ in both regime types because of difference of incentives in both regimes. According to third hypothesis, Mutascu (2011) explains that strong democracies and strong dictatorships both have the ability to extract high taxes from their societies. Voters in strong democracies agree to pay higher taxes as they understand the importance of social contract, whereas members of repressed societies can be forced to obey high tax burdens without paying attention to the public opinion.

Despite all these facts, determinants of taxation in democracy and autocracy are different, for example development level in an economy is an important factor for democrats because of bargaining process between political leaders and voters while revenue generation from a particular sector is an essential factor for dictators. The reason is that if a government prefers to extract revenues from a particular sector like mining, then it may keep tax rates low (cheibub1998).

Under a stable political system, investors have confidence about policy continuity. So, for policy stability, government must be effective in its political capacity. It can be inferred that the government willingness to mobilize resources for providing social services is an indicator of politically stable and strong government and hence, stable policies. The deviation from extractive capacity shows that government lacks effectiveness for getting desirable policy outcomes. However, different governments have different policy priorities. So, they extract resources according to their own preferences. For example, fiscal policy, which aims at determining government spending

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[3] Quasi-voluntary compliance shows willingness on the part of public that they are ready to pay taxes in exchange for social goods.

and taxes, depicts the government's allocation priorities. In sum, capacity to mobilize resources depend on the type and preferences of political regimes.

1.1.2 Taxation Phenomenon

While observing the taxation phenomena in a country, one should consider tax effort and tax capacity. Tax capacity is the maximum tax revenue a government can extract while, tax effort is defined as the ratio between the predicted tax revenues and the actual tax revenues (Le et al., 2012). Piancastelli (2001) calculated tax effort index and categorized countries according to the index into low (< 0.84), medium ($1.00 > x > 0.84$), and high (> 1.00) tax effort countries. If the value is higher than one, it shows that a country collects more taxes than predicted tax revenues. It denotes a higher value of relative political extraction which shows that country is politically capable. Even when countries have high tax capacity and tax effort ratio is also high, tax revenues depend upon willingness to tax, which depends upon (1) society's preferences over the size of availing collective public goods and redistribution, and (2) the availability of nontax revenue sources. The distinction between willingness to tax and ability to tax, defines the link between political regime type and taxation process.

1.2 Motivation of the Study

Previous studies have explored the direct impact of political instability on economic growth and impact of economic policy uncertainty on macroeconomic indicators, but there is lack of theoretical and empirical literature on the joint impact of leadership transitions and economic policy uncertainty on economic growth. This study argues that leadership transitions affect the economic performance in an indirect way i.e. through economic policy uncertainty and examines the joint impact of economic policy uncertainty and leadership transitions on economic growth.

1.3 Policy uncertainty and political instability in Pakistan

Pakistan's political history has mostly shown periods of instability in general, with episodes of democratic and autocratic regimes. After the separation of East wing, the

first democratic government was formed by Z.A. Bhutto. After this, military rule led by General Zia-ul-Haq continued from 1977 to 1988. Again democratic government came into power led by Benazir Bhutto (1988- 1990, 1993- 1996) and Nawaz Sharif (1990- 1993, 1997- 1999). The military took over the government of Nawaz Sharif in October, 1999. In 2008, democratic government came into power which was again followed by democratic government.

With each government, macroeconomic policies and macroeconomic indicators faced ups and downs[4]. Each successive government came up with new policies, discontinuing the previous ones. Such as Nationalization policy in 1970s, Privatization in 1990s and Liberalization policy afterwards. Because of uncertain economic policies as a result of political instability, Pakistan has lagged far behind as compared with other developing countries (Husain 2009). However, major macroeconomic indicators showed better performance in autocratic regimes as compared to democratic regimes (Cheema 2004; Husain 2004; Haider et al. 2011). This is evident in figure 1.1. With each autocratic regime, GDP growth rate is higher as compared to democratic regimes.

The previous studies have separately identified the impact of political instability on different macroeconomic indicators. Similarly, some studies have separately examined the effect of policy uncertainty on macroeconomic indicators. No prior research addressing the links between leadership transitions, policy uncertainty and economic growth is yet done for Pakistan, so this work will have greater significance for policy dimensions. It will focus on investigating the effect of policy uncertainty as measured by standard deviation of "Relative Political Extraction (RPE)", associated with each separate regime.

1.4. Objectives of the study

The three fold objective of this research is;

- To investigate the channels through which leadership transitions affect economic growth.

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[4] See Table 1.1

- To assess the joint impact of leadership transitions and economic policy uncertainty on economic growth.
- To explore if economic policy uncertainty is associated with a democratic or autocratic government and reasons behind it.

This study will specifically explore the joint impact of leadership transitions and economic policy uncertainty on three macroeconomic indicators i.e. investment, inflation and unemployment.

1.5. Methodology

The study empirically analyzes the impact of policy uncertainty linked with political regimes on private investment, unemployment and inflation by using Time series GMM (Generalized Method of Moments). This technique is particularly useful as it addresses the potential endogeneity in the explanatory variables.

1.6 Hypotheses

- Economic policy uncertainty arising as a result of leadership transition lowers private investment.
- Economic policy uncertainty arising as a result of leadership transition increases inflation rate.
- Economic policy uncertainty arising as a result of leadership transition delays the hiring process and increases unemployment level.
- Economic policy uncertainty is high in both democratic and autocratic regimes in Pakistan.

1.7 Significance of the study

The study highlights the impact of policy uncertainty on key macroeconomic indicators in Pakistan. It also analyses the major factors behind economic performance during every political leader from 1972-2011. The study also offers policy recommendations which would help the policy makers to formulate economic policies for sustainable economic growth.

Chapter 2: Pakistan's political regimes and Economic performance

2.1 Introduction

This chapter focuses on the political history of Pakistan with a particular focus on the economic performance of each regime. It is argued that focusing on macroeconomic indicators alone does not provide a clear distinction between performance of autocratic and democratic regimes. Consequently, the next sections elaborates the need for a deeper analysis of growth while underscoring the role of political regimes.

2.2 Pakistan's political history

Pakistan since its independence, has experienced frequent changes in government. Both democratic and autocratic regimes can be viewed as control of power through implementing economic policies. Whether these economic policies were built on welfare grounds or on political considerations, needs an in-depth analysis. However, it is a fact that if any regime showed improvement in macroeconomic indicators, it was not followed by sustainable growth. This fact can be interpreted in terms of inefficient or short run policies. Other factors which affect political setup and economic growth simultaneously are the underlying economic conditions and institutions. This causation can be summarized as follow: the political leaders shape economic policies in accordance with economic or political considerations and in turn, these policies affect economic output. An important, although neglected fact is to consider the role of government in providing social services. To extract resources from public and use them for public gains is the foremost responsibility of a ruling government. As the level of collected tax revenues shows that how much a government is willing to mobilize resources for public welfare. The capacity to mobilize resources depicts the role of government on policy choices (Leblang 1997).The study focuses on performance of government in revenue collection which also shows policy stability for other economic spheres.

Political uncertainty is reinforced by three components; regime uncertainty, economic uncertainty and institutional uncertainty. Pakistan's political structure is based on fragile democratic institutions and toppled by military power most often. According to O'Donnell,

(1996) "Developing democracies are contexts in which formal institutions—from electoral rules to civil–military relations to norms of public discourse—are uninstitutionalized". Regime uncertainty in democratic institutions is due to particular levels of development, economic structures vulnerable to exogenous shocks, historical legacies of regime volatility and limitations in communication and the access to information.

Frequent government changes create uncertainty about government term which lead them to devise sub-optimal and short term policies. Uninstitutionalized democratic systems make political actors uncertain about the decisions that will govern future interactions (Bunce and Csanadi 1993). Hence, political uncertainty is a cause of economic crises in developing economies. As economic crises have more impact on developing economies because of dependence on agriculture or natural resources, and the fluidity of international capital flows, they have limited capacity to respond effectively to minimize the domestic impact of international crises (Loayza and Raddatz 2007). Institutional uncertainty arises from the fact that weak democratic institutions may not be able to guarantee basic credible commitments. A primary role of democratic institutions is to set the rules of the game and allow political actors to make credible commitments. Contention of certain parties over these rules or inefficiency of their compliance reinforce uncertainty (Mahoney and Thelen 2010). All these factors make a country's political system uncertain and countries with a more unstable and polarized political system have more inefficient tax structures and thus rely heavily on seigniorage or loans from international monetary institutions (Cukierman et al. 1992).

There have been episodes of democratic and autocratic regimes in Pakistan. After the separation of East wing, the first democratic government was formed by Z.A. Bhutto. Bhutto era was marked by populist policies such as nationalization policy. However, these policies proved to be harmful rather than improving economic performance due to political considerations and management inefficiencies. There was huge loss of foreign exchange share due to separation of East Pakistan as a major export market was the East wing. But exports rebounded due to growth in manufacturing sector from 1972-74, due to devaluation of Pakistani rupee in 1972, and after spotting new markets, until and unless there was huge crop failure of 1974, floods of 1976-77, and global recession. The last three years of Bhutto era were reversal of early Bhutto era as the GDP growth was much low in the last three years i.e. average 3.37 % (Pakistan Economic survey 1995-96). This malaise was due to time lag

involved in huge investment in the public industries and profit generation from this investment (Ahmed and Amjad 1984). Moreover, lack of private investment further reduced growth level. Oil price shock of 1973 was major cause of highest inflation rate in the country ever observed, 30 percent in 1974. In nut shell, the external factors also caused a considerable decline in economic growth along with internal inefficiencies.

After this, military rule led by General Zia-ul-Haq continued from 1977 to 1988. Zia regime focused on privatization of small and few large industries. In this era, industrialization policy was formulated that aimed to restore investor's confidence. A number of incentives were given to encourage investors, such as tax holidays, and export rebates. Hence, growth in large scale manufacturing sector was 16.77 percent (As % of GDP). This increase in private investment was complemented with public investment due to which growth in private sector was much high. The heavy investment made in Bhutto era in public sector industries was now incurring profits that was helpful in making Zia's policy effective (Institute of Developing Economies 1994). An interesting fact was that financial sectors were still under the government control for political patronage. Another step that was taken to boost exports was floating exchange rate and devaluation of currency. But as a matter of fact, investment growth was not due to increased savings, rather it was due to increased remittances from the Gulf and contribution of foreign inflows to Pakistan in Afghan war. Moreover, growth was mainly in consumer goods and construction sector and related inputs required. When we analyze the goals of government in industrialization policy, no goal other than boosting exports[5] was achieved, import substitution nor manufacturing sector efficiency was fulfilled. Even, after realizing some basic flaws in industrialization policy, there was no improvement at all.

After Zia-ul-Haq dictatorship, it was expected that the coming decade would be effective democratic era but political instability and bad-governance resulted nine governments over the period 1988-99. In a bit more precise manner, the decade of 90s was the most uncertain and volatile decades of Pakistan and hence, named as "The chaotic 90's". Two main parties Pakistan Muslim League (PML) and Pakistan People's party (PPP) ruled turnaround others with their incomplete tenure. Benazir Bhutto was elected as a first lady Prime Minister in

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[5] Exports boost was due to profiting factor of public sector industries.

December, 1988 and dismissed from office 20 months later (in August, 1990) by president Ghulam Ishaq Khan on ground of alleged corruption. Nawaz Sharif became the prime minister after another election in 1990. On April 18, 1993, President Ghulam Ishaq Khan dismissed the Government of Prime Minister Nawaz Sharif on charges of corruption and dissolved the National Assembly but the Supreme Court of Pakistan declared the President's actions unconstitutional and restored Prime Minister Nawaz Sharif, the National Assembly and the Cabinet to power. Both Nawaz Sharif and Ishaq Khan resigned in 1993 and after a weak caretaker government for three months, Benazir became the prime minister till she was dismissed by her own party elected President Leghari in November, 1996. In 1997 Nawaz Sharif again won with a large majority till he was overthrown in the military coup led by General Musharraf.

In this era, economic policies were mainly under the influence of International Monetary fund (IMF) and World Bank (WB). The structural adjustment programs (SAP) by IMF and WB were aimed at encouraging private investment, improving balance of payments and widening tax base. The structural adjustment programmes were aimed at providing loans to developing countries for balance of payments support under IMF. Secondly, World Bank loans were aimed at improvement of economic efficiency and stable economic growth by reforming major macroeconomic policies and improving institutions performance. The first long term loan was taken by General Zia. After that, long term loans were taken in Benazir and Nawaz Sharif government. Interestingly, in both democratic regimes, agreements were signed by interim governments and democratic governments had to ratify the agreements (Zaidi 2014). The effectiveness of SAP can be investigated in terms of macroeconomic performance in 1990s. According to World Bank, in fiscal reforms, no improvement was achieved as tax/GDP ratio remained at the same level. However, balance of payments improved as exports were increased primarily of cotton manufactured products, though imports were also increased with trade liberalization. Gross external foreign reserves were increased due to increase in foreign direct and portfolio investment. There was increased investment and capitalization in stock market due to financial sector liberalization. There was an increase in saving rate from 10.5 percent to 12.5 percent of GDP during this period, which was mainly driven by remittances from overseas Pakistanis. Investment in industries and energy sectors rose sharply, due to which gross fixed capital formation in private sector

was increased from 7.7 to 9.4 percent of GDP. Despite these development, however, there was not much improvement in GDP growth while gross domestic investment as a percent of GDP showed marginal improvement. However, saving/ investment ratio was still low and inflation level remained high. Thus, 1988 SAP was not fully successful as some of the indicators were far behind targeted level. During the nineties, despite many improvements in the tax regime and introduction of withholding and presumptive taxes, tax to GDP ratio was eleven percent on average. The tax base had grown but still remained narrow and skewed (Inam and Khan 2008).This government also signed another agreement in 1997, including Enhanced Structural Adjustment Facility. However, again not all the targets were accomplished. Moreover, the nuclear tests of May 1998 had also a major impact on economic conditions as economic sanctions were imposed on Pakistan. Foreign financial assistance was banned from many countries. Before this, the restrictions imposed on withdrawal of foreign currency deposits was a major cause of uncertainty for investors which further lowered economic growth. There also started Kargil crisis in 1999, which further deteriorated foreign direct investment level.

The military took over the government of Nawaz Sharif in October, 1999. The stand-by agreements with IMF were completed in Musharraf era. The major event after which the economic conditions got far different from the past was 9/11. The financial markets collapsed as well as demand for exports slumped due to increasing uncertainty. Also, foreign direct investment declined as investors lost their confidence.

But as Pakistan was a major player in war with Afghanistan, the US funds were again available for Pakistan. Within a short time period, sanctions were removed and huge amount of previous debt was rescheduled (Zaidi 2010). Moreover, a poverty reduction and growth facility fund under IMF was started. Foreign exchange reserves rose from $2.77 billion in 1999 to $11.48 in 2003. This situation restored the investor's confidence and foreign inflows increased to a considerable level which resulted in stabilization and appreciation of Pakistani rupee along with reducing current account deficit. Interestingly, foreign reserves were not increased as a result of foreign direct investment, hence lacking sustainability. The US and UAE remittances into Pakistan was fifteen times higher as compared to 1990s. Because Overseas Pakistanis sent huge amount of their savings due to fear of scrutinizing and sealing of their foreign accounts due to 9/11. All these factors contributed towards higher GDP

growth rate. It must however, be pointed out that growth was consumer-led and there was a lack of productive investment for sustainable growth. Post effects of consumer-led growth were the shortage of energy resources with gradually increasing inflation rates. Inflation rate was also rising due to global oil price hike. Excess liquidity and cheaper loans stimulated the consumer demand further.

With intensification of war on terror, due to political uncertainty and insecurity reasons, foreign direct investment shrank. The GDP growth slowed to 3.7 percent in 2008 which was attributed to political unrest and global financial crisis. The buildup of inflationary pressure as a result of global oil price hike was accompanied by increase in budget deficit with excessive monetary expansion. In addition, the poverty level was also high after this crisis. The state of economy after Musharraf regime showed that economic policies were meant to boost growth in the short term and left development loopholes in all socio-economic spheres. The newly elected democratic government was unable to handle fiscal deficit. Due to rising current account deficit, a stabilization Programme under IMF was initiated in 2008 which was extended up to 2010. The PPP government came into power when economy was entrapped in crises. So, there was a need for far sighted and competent management to get out of this situation. Some projects like new NFC awards, Benazir Income Support program (BISP) program, support price for wheat, subsidies to power sector were introduced. But due to high amount of government borrowing, and usage of tax revenues for public service enterprises (PSEs) fiscal deficit reached to unprecedented level that proved to be costly in terms of economic and social welfare loss in that time period and till the day today. The economic growth was at an average of 3 percent annually. Domestic savings were lowest in this era, along with the lowest level of private and public investment. Foreign exchange reserves declined to an alarming level. The unemployment rate and poverty had risen to unprecedented level. Budget deficit was as high as 8.5 percent of GDP.

The law and order situation was worse with corrupt administration in every sector. As a result, low foreign direct investment and power sector shortfalls resulted in stagflation, which further weakened the economy. The IMF stabilization programme was supposed to improve the key macroeconomic indicators but real sectors suffered as the real GDP growth for 2008-09 was mere 1.2 percent. Some of the inherited flaws and poor policies of previous regime were also a cause of gradually declining economic growth. The costs of war on terror had to

be borne by PPP government, which resulted in loss of investor's confidence and foreign direct investment. The worst floods of 2010 further deteriorated economic performance.

2.3 What type of regime is good for Pakistan?

When we make a comparative analysis of different studies, some studies are in favor of military regimes while some are supportive of democratic rule in Pakistan. There are still some studies which are inconclusive. All the military regimes followed by democratic regimes ended with almost same economic situation. The short-term economic boom created in military regimes was followed by recession in every democratic regime. Although, military regimes survived for long time period yet, there was lack of long-term productive investment in spite of increased capital inflows in that era. Democratic regimes, on the other hand, were short-lived and known for reversal of economic policies and decision one after the other. Therefore, there was lack of initiatives for sustainable economic growth in every regime. Here, the first and foremost step is to make long term policies for social and economic uplift.

Studies show that civilian government performs better than military government in terms of providing social services to the public (Raheem et al. 2014). While analyzing through constructing Human Development Index (HDI) for different regimes and ranking them according to government performance, Nawaz Sharif government was on the first rank while Zia regime was on the second rank. It is an historic fact that in every military regime, there was a short term economic boom (e.g. speculative bubble in Musharraf regime) which was followed by deep recession. Major macroeconomic indicators were showing a healthy trend but poverty and unemployment level was gradually increasing. Macroeconomic indicators are helpful when they show sustainability in the long run (Amjad and Ahmed 2006; Raheem et al. 2014).

Most of the key macroeconomic indicators were found to be same for both the autocratic regimes (1999-2005) and democratic regimes (1988-1999) as concluded by Parmar and Azam (2006). This conclusion is same for social indicators as quality of life has not shown any significant improvement. Moreover, the economic performance which apparently seems to be improving in military regimes is not due to justified economic policies, rather it is due to increased financial assistance and saving transfers after 9/11 event.

The economic performance in military regime is expected to bring macroeconomic stability as compared to previous democratic era showing a period of political uncertainty and hence, low economic growth. This stable growth performance is linked to political stability and initiatives for structural reforms. But still, social indicators are far behind targeted level such as eliminating poverty, employment opportunities. In the end, the author argues that achievement of sustainable growth lies in establishing strong democratic institutions and improving social indicators (Cheema 2004).

By eliminating the foreign assistance factor, Husain (2004) concluded that economy has shown considerable growth under military regime (Musharraf regime) due to structural reforms. When a comparative analysis of macroeconomic indicators is made before and after 9/11 event, there is not as much significant difference. Further, the gains from such event had no effect on economic policies. The defence expenditures (as % of GDP) were also gradually decreasing in 2000s. The reasons behind low economic growth in civilian governments were incomplete tenures (except Bhutto government in which nationalization policy did not boost the economy) and hence discontinued economic policies.

Making an analysis of all the regimes and their policy implementation, it can be concluded that the post effects of military regimes have to be borne by democratic regimes and vice versa. The economic performance under military regime is better as compared to democratic regimes due to increased external financial inflows, but economic policies were short term, lacking an element of sustainability. Whereas, the democratic regimes were unable to show better output due to political instability, certain natural calamities, and excessive public expenditures. Among these social indicators like, unemployment rate, poverty level, and, inequality coefficient were ignored in both regimes (Hussain 2012).

Chapter 3: Literature Review

3.1 Introduction

A significant body of theoretical and empirical work has explored the relationship between leadership transitions and economic growth. Similarly the link between economic policy uncertainty and economic growth has been investigated by many studies. These studies have concluded that political instability and economic policy uncertainty have negative impact on economic growth which can be seen through fluctuations in major macroeconomic indicators such as investment, inflation and unemployment (Aisen and Veiga 2011).

3.2 Political Instability, Economic Policy Uncertainty and Economic growth

A large number of studies have found negative impact of political instability on economic growth using different set of variables and indices (Alesina and Perotti 1993; Aizenman and Marion 1993; Alesina et al. 1996; Jones and Olken 2005; Jong-a-Pin 2009).

The effect of policy uncertainty, as measured by volatility of policy and policy persistence, on economic growth for different policies was investigated by Aizenman and Marion (1993) considering the supply side and taking 'tax on capital' as policy instrument. Policy uncertainty for both fiscal and monetary policy is negatively correlated with growth as well as with investment and is highly significant while policy persistence is negatively correlated with growth for the fiscal policy but positively correlated with growth for the monetary policy. Analyzing through symmetric Markov process, policy persistence and its interaction with policy uncertainty are linked with investment as high persistence creates high option value of waiting for right timing of investment, which in turn, affects growth (Aizenman and Marion 1993).

Alongwith, increasing policy uncertainty, political instability persists because randomly changing leaders cause probability of this random change to be high in future. And even

expectations of political changes influence economic outcomes negatively and this impact is high as the degree of political polarization is high. Political uncertainty creates uncertain business environment, which lowers investment and hence, growth. But, reverse effect is not as strong (Alesina et al. 1996).

Another comparative study by Ali (2001) examined the effect of political instability and policy uncertainty on economic growth. He concluded that political instability has non-conclusive effect on economic growth, using a number of measures for political instability. However, policy uncertainty variables have negative and significant impact on economic growth.

Jones and Olken (2005) investigated how leadership transitions impact economic outcomes. They found that leaders affect economic performance through their influence on policy outcomes. There is stronger impact of autocratic leaders on economic growth, who exercise more power than democratic leaders. Leaders have significant impact on policy formulation, mainly on monetary policy in countries where central bank authorities have limited power.

Jong-a-Pin (2009) identified four political instability indicators i.e. politically motivated violence, instability of the political regime, instability within the political regime, and mass civil protest, where 'instability of political regimes', was found to have significant and negative impact on economic growth because of uncertain business environment. On the other hand, 'Instability within regimes' fosters economic growth because of competition among political leaders and making them accountable.

Another analysis is, for what type of regimes, political instability is high. Firms in hybrid regimes face high uncertainty than in autocracies or democracies. This uncertainty is high due to polarized politics and asymmetric information in case of policy changes because hybrid regimes are more likely to face growth crises than authoritarian regimes, which in turn are more likely to experience growth crises than democratic regimes (Kenyon and Naoi 2010).

Political instability affects economic growth through different channels. More specifically, political instability is a major cause of uncertainty. Political instability leads to inefficient and short-lived macroeconomic policies. It adversely affects productivity

growth rate as well as human and physical capital (Aisen and Veiga 2011). Due to uncertain politico-economic conditions, risks are higher and investment is reduced (Bernanke 1983; Rodrik 1991; Alesina and Perotti 1996). Political instability is linked with uncertain business environment, which affects hiring decisions of investors. Hence, affecting the employment level negatively (Anderson 2014).

3.3 Economic Policy Uncertainty and Investment

A large number of studies have focused on the impact of economic policy uncertainty on investment. However, the effects of economic policy uncertainty on investment are ambiguous. In general, the results are different mainly due to different specification of production functions of firms and different underlying assumptions. Studies including Bernanke (1983), Rodrik (1991), Abel and Eberly (1993), Bloom (2000), Feng (2001), Pawlina and Kort (2005) found a negative impact of uncertainty on investment. Many authors claimed that uncertainty has negative impact on investment due to irreversibility of investment.

Lucas and Prescott (1971) examined optimal response of uncertainty towards investment decisions for competitive industries, assuming rational expectation for prices. The model was mainly developed to predict about demand uncertainty (anticipated and actual prices) considering future time period. They concluded that capital stock is adjusted through interest rates, average demand level, and adjustment costs. Moreover, securities prices play a determining role in anticipating about future demand in a firm's investment decision.

Abel and Eberly (1993) found a negative impact of uncertainty on fixed costs of investment assuming investment as increasing function of shadow price of installed capital. Because of fixed cost of capital, there is a difference in the purchase and sale price of capital which defines the concept of irreversibility. They incorporated irreversibility and adjustment costs in the model and derived three separate investment possibilities i.e. positive, zero and negative investment.

Using a large panel data set, Asteriou and Price (2005) found that uncertainty is negatively linked with investment and growth with the higher intensity in industrialized

countries. Uncertainty, as measured through conditional variance of output, has negative effects on physical investment and unobserved investment in knowledge.

Under uncertainty, investor decisions are delayed, thinking of capital investment as irreversible. Investment decisions are also delayed because investors want to assure benefits of waiting for more information and then deciding among options. The major reason behind shifts in capital demand, which creates business cycles, is investor's behavior towards information and optimum investment timings. In uncertain situation, for example, when investors are not sure that either central bank is going to increase or decrease the interest rate, waiting for more information may be temporarily profiting which creates investment cycles (Bernanke 1983).

A risk averse firm facing uncertainty has options either to invest or wait for new information. The decision depends upon the calculations made through adding uncertainty and discount rate. If firm decides to invest, it bears opportunity cost of investment. This opportunity cost is greatly affected by the uncertainty. As this option is availed, investment process becomes irreversible. While waiting for more options brings reward of waiting when benefits of waiting exceeds costs (Dixit and Pindyck 1994).

When uncertainty affects investment decisions in short run, it is due to real option effects[6] and irreversibility. On the contrary, real option effect has no impact on investment in the long run because upper threshold[7] of investment increases in the period of high demand due to uncertainty of real option effect and lowers threshold of disinvestment in the period of low demand, both of these effects cancel out the effect of each other. It implies that in the long run, level of capital growth is not affected by uncertainty. Decisions made by investors in different models of irreversible investment are different because of assumption of risk aversion of the firms or real option value effects and irreversibility (Bloom 2000).

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[6] The real options effect of uncertainty is defined as 'the effect of uncertainty, produced as a result of firm's option to choose specific timing of its investment' when investment is irreversible.
[7] Investment decisions are based on threshold rules when investment process is considered as irreversible.Investment is made when demand raises to upper threshold and vice versa.

Bloom (2009) studied the UK economy and found that uncertainty, as measured through stock market volatility, is deteriorating for employment, investment and output. Higher uncertainty, as denoted by second moment shocks, increases the option value effect under the assumption of non-convex adjustment costs. So, second moment shocks make firms irresponsive to current shocks. Second moment shocks are source of short-term decline in economic activities. And after a certain time period, economic activities flourish rapidly. This is because the volatility of businesses increases in contrast to first moment shocks which are persistent. Also hiring and investment will occur only at the upper threshold. The results predicted that higher uncertainty can cause recessions.

Rodrik (1991) made a comparison between costs linked with reforms and stability. Reforms may prove damaging if they involve even a little uncertainty about their continuity. Hence, such reforms are preferable which emphasize policy stability rather than liberalization. Reforms cannot be successful until there is positive response from economic agents where high level of investment is necessary for economic growth. In an expectation that reforms will be reversed, investors withhold their investment decisions. Success or failure of reforms depends upon the expectations of investors where pessimistic expectations can be a major cause of reforms failure.

During the macroeconomic reforms, private investment was far behind the target level because of political and economic uncertainty in Ghana. Reforms, more or less are dependent upon credibility and stability of government. Reforms of 1980s aimed at increasing investment level introduced stable interest rates, and open market operations for domestic resource mobilization and investment. However, investment level was low due to uncertain economic and political conditions. However, according to surveys, major constraints were financial resources, fall in aggregate demand, and inadequate institutional framework. A submissive solution for lowering uncertainty is to enforce property rights laws (Aryeetey 1994).

Using an extensive firm level data, Brunetti et al. (1998) found that low investment and growth is followed by low credibility of rules, such as weak property rights, corruption, and policy reversals. Uncertain environment lowers confidence of investors, as sunk cost is linked with capital investment. Low credibility lowers the economic growth by lowering

investment which means capital accumulation is reduced. Institutional uncertainty, as subjectively measured by credibility of rules, when compared with other measures was found to be significant.

Lensink (2000) concluded that intermediate financial institutions play an important role in minimizing uncertainty which in turn, positively affects economic growth by increasing investment. Investors, without financial intermediaries, to avoid uncertainty, have liquid assets in their hand which yield low profits. Uncertainty was measured through standard deviation of unpredictable part of stochastic process. Fiscal policy uncertainty was strongly linked with economic growth negatively. Moreover, Inflation uncertainty was strongly related to inflation rate.

Another comprehensive study was done by Feng (2001) to investigate the impact of political instability, policy uncertainty, and political freedom on private investment. Moving away from democracy intensifies the negative impact of political instability on private investment. While economies having democratic transitions have less impact due to symmetric redistribution of income which reduces inequality. Hence, secure property rights are essential for healthy investment environment. Political instability has negative impact on private investment while policy uncertainty, as measured through the standard deviation of relative political extraction, is found to have negative impact on private investment. Also political freedom has positive impact on private investment (Feng 2001).

Several studies including Hartman (1972), Pindyck (1982), Abel (1983) and Caballero (1991) found a positive impact of price uncertainty on investment decisions for competitive firm assuming risk averse investors. Hartman (1972) showed that current investment is unaffected by future uncertainty in prices and wages for a firm having constant returns to scale and positive marginal rates of investment, as long as non-negative constraints are not binding. Firm's level of capital stock increases as the uncertainty increases if it can adjust its labor costless in the production process. Pindyck (1982) concluded that for a firm having convex marginal investment cost function, the price uncertainty spurs investment assuming expected change in investment rate as zero. Abel (1983) revisited Pindyck (1982) model and found that due to uncertainty, expected investment growth rate is higher than combined effect of expected growth rate of marginal capital value (q_t) and investment

elasticity w.r.t q_t, given that firm has constant expected change in investment rate and marginal adjustment cost function is concave.

3.4 Economic Policy Uncertainty and Unemployment

The impact of policy uncertainty on unemployment is a complicated process as it is affected by both inflation expectations and change in investment levels. A large number of studies have found positive relationship between economic policy uncertainty and unemployment (Bloom 2000; Leduc and Liu 2012; Lucifora and Mariconi 2012; Aizen and Yogo 2013; Anderson 2014; Choi and Loungani 2015).

Mullineaux (1980) tested the relationship between inflation uncertainty and unemployment according to Freidman's hypothesis. Increased inflation uncertainty and its lags cause unemployment rate to be high in the U.S. Freidman explained two possible reasons for this relationship. Firstly, with the increase in inflation uncertainty, there are institutional changes with slow adjustment of contract enforcement and property rights which lowers the confidence of investors. This in turn, affects the hiring process. Secondly, increase in inflation uncertainty makes the analysis of absolute price changes complex for investors, as information is always available in terms of relative prices (prices in dollars). Hence, investors feel difficulty in revising employment contracts.

Uncertainty affects labor demand negatively in the short run, through negative demand shocks. The more intensive the demand shock is, the greater is the effect on hiring process. Moreover, firm's hiring process is also affected by lagged demand shocks. Irreversibility and real option effect play an important role in explaining negative relationship of uncertainty and investment. This factor also affects labor demand through decrease in production level (Bloom 2000).

Wieland (2003) investigated determinants of optimal policy when there is uncertainty about natural rate of unemployment. Major source of uncertainty is relationship between unemployment and inflation. In static model, cautionary policy is the one, in which uncertainty related with all parameters is incorporated. While in dynamic model, experimental policy will be made taking into account, the central bank and private agent's behavior. So, an optimal policy will be combination of cautionary and experimental policy.

Due to increased policy uncertainty, there is a decline in aggregate demand which may cause recessions and during recessions, unemployment level is high (Leduc and Liu 2012). Unstable political conditions i.e. irregular government change and political polarization, lead towards such policies which on one hand, attempt to raise unemployment insurance and expected income of labors but on other hand, are detrimental for public good provisions and employment, as public goods availability is the opportunity cost of expected labor income (Lucifora and Mariconi 2012)[8]. Policy uncertainty affects economic growth and employment in a negative way. There is also reverse causality, where unemployment can induce socio-economic crisis and hence political instability (Aizen and Yogo 2013).

Policy uncertainty affects rational hiring decision of firms and hence employment level in a negative way. When there is probability of high cost production and higher taxes in future, firms avoid hiring of workers in the current period. Using the value functional model with an assumption that managers are value maximizers instead of profit maximizers, the study found that the response towards policy uncertainty varies in different industries according to scale and tax payments The value functional model takes into account the perceptions about uncertainty and decisions based on value- maximizing and suggests that policy makers should incorporate risks and uncertainty faced by investors in course of action or inaction (Anderson 2014).

Sectoral uncertainty shocks, as measured by inter-industry volatility of stock returns, have significant and persistent negative impact on US unemployment through wait and see mechanism. As firms revise their hiring and firing decisions in uncertain environment, unemployment tends to increase. Aggregate uncertainty on the other hand, has less significant impact because across the industries, resource allocation is costly (Choi and Loungani 2015).

3.5 Economic Policy Uncertainty and Inflation

Inflation uncertainty affect many macro-economic indicators. A substantial body of empirical and theoretical literature has investigated the relationship between inflation

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[8] This study was conducted for 21 OECD countries.

and inflation uncertainty. However, the causation and direction of causation of inflation rate and inflation uncertainty is ambiguous.

Inflation uncertainty helps explaining the phenomenon of Philips curve as inflation uncertainty disrupts relative price mechanism affecting investment and hiring decisions (Friedman 1977). To interpret this fact, Evans and Wachtel (1993) used Markov switching process to conclude that dispersion of forecasts due to changing inflation rate have significant impacts on unemployment rate. They argue that with the assumption of rational expectations, agents do not adjust quickly to inflation shocks. The model shows that there are structural changes in inflation forecast process, which means that expectations change with the time and there is a change in actual inflation due to change in expectations overtime. The model rejects the assumption of rational expectations as the forecast errors are correlated with current information. Inflation uncertainty affects unemployment rate positively and significantly over the longer time horizon (Evans and Wachtel 1993).

Increased inflation uncertainty affects employment contract length and hence unemployment level may be higher (Friedman 1977). The negative effect of inflation uncertainty will possibly accumulate after short time, which describes how inflation volatility is supposed to impact output. A rise in inflation leads to higher inflation uncertainty and thus lowers economic growth. When tested for European countries like Italy, Spain, France, Germany and Netherlands, increased inflation uncertainty caused the inflation to be high in all countries except Germany (Fountas et al. 2004).

Higher average inflation has indirect negative effect on Mexican economy, through a positive relationship with inflation uncertainty. This relationship supports the Friedman hypothesis. By controlling the effects of inflation uncertainty, lagged inflation does not affect economic growth significantly. Moreover, inflation uncertainty rises during election and post-election period, and has negative effect on economic growth (Grier and Grier 2006).

The Friedman hypothesis that higher inflation causes higher uncertainty, is supportive in case of Argentina as Granger causality test showed bi-directional causality in inflation and inflation uncertainty. Three unit root tests have been used to check the data without

structural break, with structural break, and with two structural breaks. Results suggest that inflation is positively related with inflation uncertainty in the short run. (Thornton 2007).

Bredin et al. (2009) investigated the effect of real and nominal uncertainty, as measured through bi-variate GARCH, on economic growth. Output uncertainty affects economic output in a negative way. However, nominal uncertainty was found to have insignificant impact on economic performance. Hence, Friedman (1977) hypothesis that inflation uncertainty increases inflation is not supportive in case of Asian countries. The robustness of results was checked through impulse response function.

Ball et al. (1990) examined that average inflation affects uncertainty negatively over a longer time period. The study is consistent with Okun and Friedman hypothesis that higher inflation affects policy stability. Moreover shock to aggregate demand is a possible cause of inflation. More fluctuating inflation rate raises long-run inflation uncertainty. The model incorporates transitory and permanent shocks in inflation, which vary across country and across the time. As inflation is measured by shifts in trend and deviations from the trend, variance of the trend rises with high trend rate of inflation whereas there is no impact on variance of deviations from the trend.

The relationship between inflation and inflation uncertainty depends upon whether or not the shock is permanent or transitory. Policy uncertainty about long run inflation increases inflation in some countries while in others, it lowers inflation (Bhar and Hamori 2004). Negative inflation shocks indicating asymmetric effects, cause inflation uncertainty to be high. Negative inflation shocks have a significant impact on inflation uncertainty as compared to positive shocks, which in turn, affect economic output in a negative way by relative price dispersion (Caporale and Caporale 2002).

Uncertainty as measured by the standard deviation of residuals of inflation, real interest rate, budget deficit, taxes, export sales, and government consumption was found to have negative impact on economic growth except real interest rate uncertainty. This explains that monetary uncertainty is less harmful than fiscal uncertainty. Moreover, including and excluding investment in the model shows that uncertainty affects economic growth both through efficiency and investment level. When the indirect effect of uncertainty

was checked by including the interaction term of investment and uncertainty, investment level was found to be low which negatively affects economic growth. Robustness of results was checked by performing modified extreme bound analysis. It has been suggested that credibility of governments and stable fiscal policy will help to lower uncertainty (Lensik et al. 1999).

Gregorio (1992) analyzed possible determinants of growth for 12 countries of Latin America. He found negative impact of rising inflation and inflation variability on economic growth through decreasing productivity of capital. As a result, employment level also declines. It has also negative effect on investment activities. Political instability was also negatively linked with economic performance as it creates uncertain environment for investment and adversely affects public policy choices.

Devereux (1989) explained that if government is supposed to increase output growth by decreasing optimal wage indexation[9], which happens when economy is facing real shocks, then average inflation rate does not cause inflation uncertainty. Hence, inflation uncertainty will not affect the welfare costs of inflation. On the other hand, Holland (1995) found that higher uncertainty is followed by higher inflation rate as uncertainty about inflation parameters develops a link between inflation and inflation uncertainty (Holland 1993a). It means that inflation uncertainty can be interpreted as a welfare cost of inflation. The reason is that when there is high inflation rate, people become uncertain whether inflation will persist or not. It also implies that a high deflation rate will also increase inflation uncertainty.

Grier and Perry (1996) separated the effects of inflation and inflation uncertainty as an explaining factor of relative price dispersion using GARCH-M model. They concluded that positive relationship between inflation rate and relative price dispersion according to menu cost model is due to firm's specific shocks or changes in fixed cost of price changes and is insignificant in explaining the phenomena of relative price dispersion. While, inflation uncertainty was found to be dominant cause of relative price dispersion

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[9] See Heinemann (2003)

as signal extraction model explains. The reason behind positive relationship is that, with the increased uncertainty, firms become less responsive towards nominal shocks.

By minimizing monetary policy uncertainty, inflation can be controlled to a significant extent. Monetary policy uncertainty can be lowered by making monetary authorities accountable. Effectiveness of accountability in lowering monetary policy uncertainty is significant in the countries where the degree of central bank independence is low (Schaling and Nolan 1998).

3.6 Literature Review for the case of Pakistan

There are a few studies which have explored the relationship between political instability, policy uncertainty, and economic growth in Pakistan. Almost, all the studies have used variance obtained through GARH, as a proxy of policy uncertainty. These studies have concluded that political instability and policy uncertainty have negative effects on economic outcomes.

Macroeconomic uncertainty and instability affects private investment in services and large scale manufacturing sector negatively in Pakistan. In large scale manufacturing sector, future policy uncertainty is more pronounced because fixed investment decisions cannot be reversed as sunk cost is linked with capital investment. Investment decisions are sensitive to both recent and future uncertainty. Also current year investment depends upon previous investment decisions (Ahmad and Qayyum 2007; 2008; 2009).

Sial et al. (2010) concluded that both private and public investment play a positive role in enhancing economic growth. However, private investment has a positive and significant impact on GDP in the short run while public investment was insignificant in the short run. Political instability and economic uncertainty, as measured by percentage change in consumer price index (CPI), were found detrimental for economic output. While economic uncertainty was found significantly and positively affecting economic growth in the short run. The possible reason for this short run relationship is that investors delay their decisions till the policy announcement, and there is a reward of delaying investment.

Fatima and Waheed (2013) found negative impact of economic policy uncertainty (obtained through GARCH model of macroeconomic policy variables) on both current

and future investment and economic growth. In simulated model, increase in interest rate and inflation uncertainty showed a decline in economic growth while affecting all the nominal and real sectors of economy.

Rizvi and Naqvi (2010) explored asymmetric behavior of inflation in Pakistan with introducing 'News impact curves'. Using GJR-GARCH and EGARCH models, they concluded that positive inflation shock raises inflation uncertainty more than a negative shock. Moreover, because of asymmetric behavior of inflation, Friedman-Ball hypothesis that "inflation causes inflation uncertainty" is supportive for Pakistan while Cukierman-Meltzer hypothesis "inflation uncertainty granger causes inflation" was rejected. So, stabilization programs are needed to lower inflation, which in turn, will reduce inflation uncertainty.

There have been change in monetary policy phases with every new government. In democratic regimes, contractionary monetary policy was chosen whereas, autocratic leaders enforced expansionary monetary policy. With weak institutions, monetary policy is unable to influence price level and economic growth (Pasha et al. 1995). Friedman hypothesis that "Inflation is always and everywhere a monetary phenomenon" is inconclusive in case of Pakistan. This hypothesis is accepted because with the excess money supply, there is an increase in inflation rate (Qayyum 2006). But in another study, when checked through applying GMM, monetary model was found to have effects on price level through political environment and rejecting Friedman's hypothesis in Pakistan while political instability was found the determining factor of inflation in nonmonetary model (Khan and saqib 2009).

Pakistan's economic growth showed better performance during military rule as compared to civilian rule because of the former's longer tenure, structural reforms and increased foreign aid. Poor governance and power-seeking role of elite bureaucracy has been considered a major halt in economic development. Randomly changing policies imposed by every new government led to unsustainable growth in the country (Taha 2012).

While investigating the determinants of unemployment, Cheema and Atta (2014) found that output gap, productivity and economic uncertainty as measured by equilibrium

exchange rate divided by actual exchange rate, have positive relationship with unemployment while Gross Fixed Investment and Openness of Trade are negatively related with unemployment. These results are valid in the short run as well as in the long run. The study uses ARDL approach to check the short and long run dynamics of variables. However, the study is unable to explain the channels through which these variables are affecting unemployment.

Almost all of above studies have found direct impact of political instability on economic growth and some other studies have examined the behavior of economic policy uncertainty and economic growth but no study has been done yet to investigate impact of leadership transitions on economic growth through economic policy uncertainty. This study will specifically examine joint impact of economic policy uncertainty and leader transitions on three key macroeconomic indicators i.e. inflation, private investment and unemployment in Pakistan. Moreover, above studies have used ARCH family models, SVAR and Markov switching technique, System GMM for panel data, except Khan and Saqib (2009) who used GMM for time series data to explore the relation between political instability and inflation in Pakistan. This study will use GMM for time series data due to its effectiveness towards dealing with the potential endogeneity problems and over identification problem.

Chapter 4:   Methodology

4.1 Introduction

This chapter motivates the specification of econometric model in the light of theoretical consideration. In addition, the chapter spells out the methodology for estimation. The econometric model is developed to check the joint impact of leadership transitions and economic policy uncertainty on investment, inflation and unemployment. Data and variables will also be discussed in detail.

4.2 Theoretical Framework

Political instability is harmful for an economy in many ways. It create uncertain environment for both domestic and foreign investors. Saving ratios tend to be decline, causing higher immediate consumption and afterwards inflation (Feng 2001). People, after a time lag become irresponsive to change in government decisions or policies which may also lead towards recession. Therefore, a country with political unrest and collapse is supposed to experience political instability in future also (Alesina and Perotti 1993). Leaders affect economic growth through their influence on economic policy variables. They follow short term and sub-optimal policies when they are uncertain. Hence, frequently changing governments along with policy discontinuity is harmful for economic growth of a country (Jones and Olken 2004). In short, the economy is unable to move towards sustainable growth pattern. The model is developed to investigate the joint impact of leadership transitions and arising policy uncertainty on three key macroeconomic indicators.

4.2.1 The Measure of Economic Policy Uncertainty

The most commonly used measure of policy uncertainty is obtained by taking the standard deviation of residuals of concerned variable. A possible disadvantage of using this measure is that future predictable values are treated as uncertain. A model based on such measure will treat the predictable values as uncertain. Hence, the optimal decisions made by economic agents will not be based on rational assumptions. Some studies have constructed this measure through ARCH/GARCH approach. ARCH/GARCH models are used to describe volatile variance but uncertainty is more related to predictability

than to volatility. Hence, a better approach is to focus on a comprehensive aspect of policy uncertainty, that is, the changeability of government capacity. This measure incorporates the policy uncertainty that is different for each government. It measures that how much a government is deviating from its capability to extract tax revenues from the public and use them for public gains. Fluctuations in the government capacity shows that government is inconsistent towards its job and hence less effective towards policy execution (Feng 2001). We can establish a link between government capacity and economic policy uncertainty i.e., when a government is more capable to extract resources, the stronger the government, the lower is the level of economic policy uncertainty. A higher level of government capacity reduces policy uncertainty. The strength of relationship between government capacity and policy outcomes depends upon the political agenda and objectives of ruling government.

Governments with high level of political capacity enforce growth-led policies (Leblang 1997). With more involvement of citizen in policy choices, government can extract more resources and could ensure stronger link of economy and politics. Taxation is an effective mean of public involvement towards building governmental capacity, it signifies willingness on the part of citizen that it provides resources to government to enforce policies beneficial for the public at large. Comparison between developed and developing economies has shown that there is low level of political extraction (tax revenue collection) in developing economies due to narrow economic base. It means that people in these countries have least choices about policy preferences.

Organski and Kugler (1980: 72) were the first to introduce the concept of "government capacity". Arbetman and Kugler (1995) construct a measure of relative political extraction (RPE).   This concept focuses on government capabilities of extracting resources, "the capacity of the political system to carry out the tasks chosen by the nation's government in the face of domestic and international groups with competing priorities" (Arbetman and Kugler 1997:1). This measure can be used for economies with changing level of democracies and autocracies. Finding the RPE and taking its standard deviation is used as measure of policy uncertainty (Feng 2001).

4.2.2 Empirical Model

The empirical model is based on the model developed by Feng (2001) to test the impact of political instability, policy uncertainty and political freedom on private investment.

$$private = \alpha + \beta X + \gamma Y + \varepsilon$$

Above equation shows the model developed by Feng (2001) where $private$ represents private investment, X is a set of political variables, Y is a set of economic variables, and ε is the error term. The single equation linear models used here are extension of model developed by Feng (2001). It differs from the above model in the sense that it includes an interaction term, for analysis of policy uncertainty arising from leadership transition. Moreover, the model will also investigate the joint impact of policy uncertainty and leadership transition on unemployment and inflation. The first model is with private investment as dependent variable. This model examines impact of economic policy uncertainty arising from change in leadership on private investment including a set of economic control variables as well as institutional control variable;

$$Inv_t = \alpha_0 + \Sigma_{i=1}^{6}\alpha_i policy\ un_t * D_i + \alpha X' + \varepsilon_t \ldots\ldots\ldots. (4.1)$$

Second model is developed with inflation as dependent variable.

$$Inf_t = \beta_0 + \Sigma_{i=1}^{6}\beta_i policy\ un_t * D_i + \beta X' + \varepsilon_t \ldots\ldots\ldots. (4.2)$$

And in the third model unemployment rate is dependent variable.

$$Unemp_t = \gamma_0 + \Sigma_{i=1}^{6}\gamma_i policy\ un_t * D_i + \gamma X' + \varepsilon_t \ldots\ldots\ldots. (4.3)$$

In equation (4.1), Inv_t shows private investment level. In the next equations, Inf_t shows inflation rate while $Unemp_t$ shows unemployment rate. α_0, β_0 and γ_0 are the intercepts. $Policy\ un$ measures economic policy uncertainty. Di is a vector of dummy variables which includes six dummy variables for each leader. D_1 is a dummy variable equal to 1 in the years Z.A. Bhutto was in office and zero otherwise. The time period for this leader is from 1972-1977. D_2 is a dummy variable equal to 1 in the years military government led by General Zia-ul-Haq was in rule and zero otherwise. This time period is from 1978-1988. D_3 is a dummy variable equal to 1 in the years Benazir Bhutto was in office and zero

otherwise. The time period for this leader is from 1989- 1990, 1992- 1996. D_4 is a dummy variable equal to 1 in the years Nawaz Sharif was in office and zero otherwise. The time period for this leader is from 1991- 1993, 1997- 1999. D_5 is a dummy variable equal to 1 in the years military government led by General Pervez Musharraf was in rule and zero otherwise. This time period is from 2000-2008. Time period for Asif Ali Zardari era is taken from 2009-2011 for which D_6 is used.

α_i is the coefficient explaining joint impact of economic policy uncertainty and leadership transition. $\textbf{\textit{Policy un}} * (D_i)$ is an interaction term showing joint impact of leader's rule and related economic policy uncertainty. ε_t is error term. X' is a vector of control variables. Control variables have been selected on the basis of existing literature from prospective of Pakistan. In the model of private investment, interest rate, GDP, and public investment will be used as control variables. In the inflation model, M2 to GDP ratio, government final consumption, and GDP will be used as control variables. In the unemployment model, population growth rate, and GDP will be used as control variables. Foreign aid will be used as control variable in all models to estimate the exact impact of policy uncertainty in military and democratic regimes as there was increased financial assistance in all military regimes. Democratic institutions scores from Polity IV data set has been included as control variable in all models to control the effect of democratic institutions.

As per the second objective of this study, separate models are developed for analyzing the average impact of policy uncertainty in democratic and autocratic regimes on major macroeconomic indicators.

$$\boldsymbol{Inv_t = \delta_0 + \Sigma_{i=1}^2 \delta_i policy\ un_t * D_i + \delta X' + \varepsilon_t} \dots \dots \dots (\textbf{4.4})$$

$$\boldsymbol{Inf_t = \theta_0 + \Sigma_{i=1}^2 \theta_i policy\ un_t * D_i + \theta X' + \varepsilon_t} \dots \dots \dots (\textbf{4.5})$$

$$\boldsymbol{Unemp_t = \eta_0 + \Sigma_{i=1}^2 \eta_i policy\ un_t * D_i + \eta X' + \varepsilon_t} \dots \dots \dots (\textbf{4.6})$$

In the above equations, $\boldsymbol{D_i}$ is a vector of dummy variables used for democratic and autocratic regimes which is equal to 1 for democratic regimes and zero otherwise. In this vector,

$policy\ un_t * D_1$ is an interaction term showing policy uncertainty in democratic regimes and $Policy\ un_t * D_2$ is showing policy uncertainty in autocratic regimes.

Several studies have examined the impact of political instability on economic growth (Feng 2001; Jones and Olken 2005). These studies have mostly used Ordinary Least square (OLS) technique. OLS results are biased and inconsistent if explanatory variables are correlated. Moreover, there is a chance of reverse causality; that economic growth can affect leadership transitions. Therefore, until and unless, simultaneity problem is resolved, OLS results can be inconsistent. However, few studies have also investigated if there is reverse causality i.e. if economic conditions are responsible for leadership transitions. Other studies have investigated impact of economic policy uncertainty on inflation or investment or unemployment using VAR and GARCH family methodologies. These studies have mostly used Standard Deviation of residuals as a measure of uncertainty. The rationale behind using GMM for empirical analysis is that explanatory variables are likely to be correlated with error term. Moreover, there are also chances of reverse causality as economic conditions may be responsible to cause frequent governmental change. This technique is also used by Khan and Saqib (2009) for analyzing relation between political instability and inflation in Pakistan.

4.2 Generalized Method of Moments

Generalized method of moments is a technique based on the method of moments, developed by Lars Peter Hansen in 1982. It is an econometric technique that provides estimates of unknown parameters by combining observed economic data and population moment conditions. When number of unknown moment conditions are greater than number of unknown parameters, then GMM is used. It can be applied even when complete distribution of data is unknown.

The basic motive behind using GMM is to extract all information from population moments. In the presence of heteroscedasticity, IV estimators are usually used with appropriate instruments. But using conventional IV estimators, again leads toward inconsistent standard error estimates, so Generalized method of moments (GMM) technique is used to tackle the problem of heteroscedasticity with the assumptions of orthogonality conditions. The instrument used must have two properties; it should be correlated with the endogenous

regressors, and uncorrelated with the error term. To check the relevance of instruments, a partial R^2 measure developed by Shea (1997) can be used.

To resolve simultaneity problem among dependent and independent variables, instrumental variables method (IV) is used. GMM is an extension of this method. The major advantage of GMM is that it can be used with heteroscedastic and serially correlated error terms. GMM maximizes objective function with moment restrictions where error term is uncorrelated with lagged independent variables (Nunkoo and Boateng 2010). Hence, GMM is an appropriate technique for models having endogeneity problem and omitted variable bias.

After applying GMM, two tests are performed i.e. endogeneity test and over identification test. Difference-in-sargan or C test is used for checking whether endogenous regressors in the model are in fact exogenous. C-test is computed as the difference between two sargan tests, i.e. regressions with full set of over identifying restrictions and regression with restricted set of instruments. The restriction criteria implies to drop out endogenous instruments and to treat exogenous instruments as endogenous variables. Null hypothesis is that the instruments are valid, while alternative hypothesis is that instruments are not valid. If the test statistic is not significant, then the variables being tested must be treated as exogenous.

To check the over identification of the model, i.e. if the number of instruments used is greater than number of endogenous variables, J-test is used. The null hypothesis is that over-identifying restrictions are valid while the alternative hypothesis is that over-identifying restrictions are invalid. Rejection of null hypothesis indicates that instruments are not statistically independent from error term. This is the case when instruments are not strictly exogenous or when they are incorrectly specified.

4.3 Unit Root Analysis

The first step is to check the stationarity of time series data. In time series data, Augmented Dickey Fuller (ADF) test, developed by Dickey and Fuller (1981), is commonly used to test whether series has unit root or not. The equation used for this test is;

$$\Delta y_t = \alpha + \beta t + \gamma y_{t-1} + \delta_1 \Delta y_{t-1} + \cdots + \delta_{p-1} \Delta y_{t-p+1} + \varepsilon_t$$

Where α is a constant, β is coefficient for time trend, y_{t-1} is the lag of dependent variable and Δy_{t-1} term shows that lag of difference of dependent variable is taken. ε_t is the error term.

Null hypothesis is that series is non-stationary i.e. $\gamma = 0$ whereas alternative hypothesis states that series is stationary i.e. $\gamma < 0$. The detailed unit root test estimation is in the appendix (Table 5.1).

4.4 Data and Variables

For the empirical analysis, data have been taken from the period 1972-2011. Data on Unemployment rate has been taken from Economic survey of Pakistan (various issues). Data on GDP, Private investment (% of GDP), Public investment (% of GDP), Broad money (% of GDP), Foreign aid (% of GNI), and Govt. Final Consumption (% of GDP) has been taken from World Development Indicators (WDI). While, data on Call money rate and Inflation has been taken from SBP (various issues).Data on relative political extraction (RPE) is from relative political performance version 2.1 (2013) and then its standard deviation is taken which is used as measuring Economic policy uncertainty. Data on political leaders is from Khan and Saqib (2011). Data on democratic institutions is from Polity IV Dataset.

Data set starts from 1972 because we want to investigate impact of leadership transitions and economic policy uncertainty on Pakistan economy after the separation of East wing. And it is up to 2011, because in relative political performance version 2.1 (2013), data on relative political extraction (RPE) for Pakistan has been updated till 2011.

We will develop three separate models taking investment, inflation and unemployment each as dependent variables for examining the joint impact of leadership transition and economic policy uncertainty on economic growth.

Private Investment:

Gross fixed capital formation has been used as a measurement of private investment as it is considered an important determinant for economic growth (Pastor and Sung 1995; Feng 2001). GFCF (% of GDP) covers gross outlays by the private sector (including NGOs) on additions to its fixed domestic assets.

Inflation:

Inflation is defined as a general rise in the prices of goods or services in an economy.

Unemployment rate:

Unemployment rate is defined as total number of out of job potential workers who are willing to work out of total labor force.

Economic Policy Uncertainty:

Measure of economic policy uncertainty as derived by taking standard deviation of Relative political extraction as earlier used by Feng (2001). Relative political performance version 2.1 (2013) consists of data on Relative political extraction (RPE) for developed and developing nations using two different equations[10]. For Pakistan, data is almost same derived from two different measures. So we used standard deviation of relative political extraction (rpe_gdp) as measure of economic policy uncertainty.

GDP:

GDP is the sum of gross value added by all resident producers in the economy. It is calculated without making deductions for depreciation of manufactured assets or for depletion of natural resources. It has been considered as an important determinant of unemployment rate and inflation rate. In previous studies, it has negative relationship with unemployment and inflation (Kalim 2003; Akhtar and shehnaz 2005; Abdullah and Kalim 2009; Bashir et al. 2011; Aurangzeb and Haq 2012; Maqbool et al. 2013). This effect is due to stability of macroeconomic indicators with increasing GDP. It affects private investment level positively as determined in previous studies, as it promotes investor's confidence (Sakr 1993; Sial et al. 2010; Haroon and Nasr 2011; Salman and Ahmad 2014).

Broad Money:

Broad money as denoted by M2 includes currency outside banks; demand deposits; the time, savings, and foreign currency deposits of resident sectors other than the central government; bank and traveler's checks; and certificates of deposit and commercial paper. Its value has been taken as a percentage of GDP. Khan and Qasim (1996), Khan and Axel (2006), Abdullah and Kalim (2009), Bashir et al. (2011), Aurangzeb and Haq (2012)

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[10] See appendix (section 4.1)

found that Money supply (M2) is positively linked with Inflation. So, literature has considered M2 as an important explanatory variable for inflation.

Population growth rate:

The population growth rate is the rate at which the number of individuals in a population increases in a given time period as a fraction of the initial population. Literature shows that population growth rate is positively and significantly linked with unemployment rate (Kalim 2003; Maqbool et al. 2013).

Government final consumption expenditure:

General government final consumption expenditure (% of GDP) includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation. It has been used as control variable for inflation (Bashir et al. 2011).

Interest Rate:

The proxy used for interest rate is call money rate because of unavailability of data on bank interest rate. Interbank clean (without collateral) lending/borrowing rates are called Call Money Rates. Previous studies have shown that interest rate is negatively and significantly linked with Private Investment (Saghir and Khan 2012; Muhammad et al. 2013; Salman and Ahmad 2014).

Foreign aid:

Foreign aid is the Net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries to promote economic development. It includes loans with a grant element of at least 25 percent.

Public investment:

Public investment (as % of GDP) has been taken as Gross fixed capital formation (formerly gross domestic fixed investment) and it includes land improvements, plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. Private investment increases as government increase investment in infrastructure and investment generating activities (Sakr 1993; Saghir and Khan 2012).

Democratic Institutions:

Proxy for democratic institutions as denoted by POLITY 2 in Polity IV, is derived simply by subtracting the AUTOC value from the DEMOC value; this procedure provides a single regime score that ranges from +10 (full democracy) to -10 (full autocracy). This variable has been added to control for the economic changes due to democratic regime in specific time period.

Table 4.1 Data and Variables (Summary statistics)

Variables	Obs.	Mean	Std. Dev	Min	Max
Dependent Variables					
Investment (INV)	40	8.609	2.529	3.935	13.50
Inflation (INF)	40	9.587	5.748	03.10	30.00
Unemployment (Unemp)	40	4.715	1.859	1.690	8.270
Independent Variables					
Policy Uncertainty (SD (rpe_agri))	40	0.035	0.027	0.008	0.119
Policy Uncertainty (SD(rpe_gdp))	40	0.034	0.027	0.006	0.116
Interest Rate (INT)	40	7.954	2.330	1.860	12.97
GDP constant LCU (GDP)	40	12.60	0.251	12.16	12.97
M2 to GDP Ratio (M2/GDP)	40	42.62	3.950	33.66	51.30
Foreign Aid (Faid)	40	2.645	1.444	0.894	7.481
Population Growth Rate (Pop)	40	2.659	0.587	1.727	3.416
Public Investment (Pinv)	40	7.716	2.671	3.231	13.31
Govt. Final Consumption(GC)	40	11.20	2.030	7.781	16.79
Institutional Variable					
Democratic Institution (INS)	40	0.875	6.630	-7.000	8.000

Chapter 5: Results and Discussion

5.1 Introduction

In this chapter, we will analyze the impact of economic policy uncertainty and leadership transitions on three macroeconomic indicators i.e., private investment, unemployment and inflation. This chapter consists of four sections. The next section investigates the joint impact of economic policy uncertainty and leadership transitions on private investment empirically while in section 5.3, the impact of economic policy uncertainty and leadership transitions on unemployment is analyzed. In section 5.4, we examine the joint impact of economic policy uncertainty and leadership transitions on inflation.

5.2 Impact of Economic Policy Uncertainty and Leadership Transitions on Private Investment

To check the joint impact of economic policy uncertainty and leadership transitions on private investment, GMM is applied (Table 5.1). In the first model, private investment is the dependent variable, while interaction terms of economic policy uncertainty and dummy variables for different leaders are used as independent variables. Interest rate, public investment, foreign aid, and GDP have been used as economic control variables. While, democratic institutions are included as institutional variable. The reason behind including institutional variable is that democratic institutions ensure the existence of secure property rights. Hence, positively affecting private investment. As we want to analyze exact impact of policy uncertainty with each regime so effect of democratic institutions is controlled for. The constant term is statistically significant with coefficient -43.73. Table 5.1 depicts the negative impact of economic policy uncertainty in every leader's era. The coefficients of all the variables are highly significant. In time period of first leader, Zulfiqar Ali Bhutto, results indicate that with 1 percent increase in policy uncertainty, private investment declines by 8.47 percent. However, it is notable that major manufacturing industries and banks were under the government control with the launch of nationalization policy in Bhutto era. There was a considerable level of public investment but inefficiencies and political vested policy decisions became cause of decline in productivity of investment (i.e. a rise in the incremental capital output ratio).

A major part of expenditure was going to unproductive sectors (Defence and public administration). Defence expenditure and general administration expenditure were respectively 6.7% and 1.8% of GDP in 1974-75. Budget deficit was also increased due to provision of subsidies to industrial sector such as over-valued exchange rate, which lowered the exports. As government expenditures increased, the government was unable to finance these from tax revenues because of inefficient taxation system. With the increase in government expenditures, inflation rose (Pasha and Fatima 1999).

In Zia-ul-Haq era, the results show that with 1 percent increase in policy uncertainty, private investment declines by 30.72 percent. As the measure of policy uncertainty is based on the deviation from collection of tax revenues, so the negative relationship shows that government was incapable to collect enough tax revenues. Then, it also lack consistency in policy execution. In spite of heavy capital inflows, there was lack of planning for long term productive investment. Although, there is evidence of high private investment and hence, high GDP growth in Zia regime i.e., the manufacturing sector grew at 9.5% per annum and GDP growth was 6.6% in 1980s. There had been considerable increase in the investment in the intermediate inputs and capital growth sectors, which rose to about 50 % of total manufacturing sector. According to Asian Development bank report, Zia was of the view that private sector investment can play a significant role in boosting economy. Zia regime introduced many incentives to the private sector such as duty free imports of selected capital goods, low interest credit, and tax relief. However, it is important to consider that investment was not high due to government policies, rather it was due to increased funds and more likely, due to increased remittances. Hence, government lacked effectiveness in policy execution. Investment level was temporarily high, mainly due to boom in the construction sector, which accompanied with increasing demand in intermediate and capital goods in manufacturing sector. Another factor was that denationalization occurred slowly, all the sectors were not transferred to private ownership simultaneously. Increased investment was due to increase in domestic consumption demand as result of increased remittances, increased private foreign capital inflows and financial aid i.e. U.S. $ 3.2 billion in Afghan war. Moreover, Private investment was not made in the long term profitable projects.

As the measure of economic policy uncertainty is based on extraction of tax revenues by a government. There was too little focus on collection of tax revenues as the taxation structure was inelastic. An inelastic tax system is more likely to increase the uncertainty linked with tax revenue collection (Fonseca and Santaularia 2011). The high coefficient for policy uncertainty explains the low tax revenues in Zia regime that resulted in inadequate investment in economic and social infrastructure (Hussain 2012; Zaidi 2014).

For the next leader, Benazir Bhutto, the coefficient for policy uncertainty is 36.90 which is statistically significant and is higher as compared to previous regime, which shows that investor's confidence was shaken due to inefficient policy process along with political instability. The coefficient explains that if policy uncertainty rises by 1 percent, private capital investment is lowered by 36.90. Similarly, in Nawaz Sharif era, with 1 percent increase in policy uncertainty, private investment declines by 22.65 percent. The decade of 1990s was a period of high political instability, combined with low investment, rising poverty and inequality and hence, low economic growth. Due to change in government twice in a short time period, policy uncertainty was also high in this time period, compounded with a high level of corruption, and deteriorating law and order situation. With the inception of SAP by IMF, public investment in infrastructure was much lower than the required level, although unproductive government expenditure were not cut down. Poor policy planning, such as increase in interest rate as required for SAP was made before decreasing the budget deficit, was also a major cause of lowering economic growth. Policy implementation failure due to reversal of decisions by each new government and increased financial crisis, as accumulated in past eras, provided unfavorable environment for investment. Moreover, tax revenues were directed to collect through indirect taxes which widened the rich-poor gap. Tax revenues were inadequate to finance the budget deficit. Hence, government borrowing was much higher as compared to past regimes. All these factors were responsible for lowering investment by creating uncertain environment for investors (Hussain 2012).

During Gen. Pervez Musharraf's regime (2000-2008), the coefficient for policy uncertainty is -6.58, which shows that with 1 percent increase in policy uncertainty, private investment declines by 6.58 percent. This is comparatively low value as

compared to other leader's era. The Musharraf regime introduced a number of reforms for putting back the economy on its potential growth path. Macroeconomic indicators showed improvement and budget deficit decreased. Incentives for encouragement of large-scale manufacturing industries and pro-private sector policies restored the investor's confidence. However, investment was made mainly in three sectors i.e. (i) consumer durables primarily automobiles, (ii) Construction, (iii) Textiles. This investment pattern did not lead to sustainable growth i.e. long term investment projects did not include as much fixed capital investment. But, there was an increase in saving ratio as needed for the investment. As a matter of fact, there was short term economic boom due to speculative bubble in this era. Therefore, economic growth was high but followed by deep recession (Hussain 2012).

The coefficient of interaction term shows that in Asif Ali Zardari era, with 1 percent increase in policy uncertainty, private investment declines by 79.82 percent, which is the highest value as compared with previous regimes. This regime was characterized by corruption, weak administration, worsening law and order situation and weak political coalitions. Hence, private investment and foreign direct investment declined due to reduction in consumer demand[11] and growing uncertainty for investors. The government borrowing was much higher as compared to previous regime. The reduction in capital investment can also be explained through constraints in foreign exchange along with stagflation. Foreign exchange constraints were due to declined capital inflows in civilian regimes (Amjad 2014). Foreign exchange is needed to import machinery and fill the fiscal gap in Pakistan (Iqbal and Rehman 1995). Inflation rose as the consumer demand was increasing due to increased remittances and unemployment level was higher than the past decade because of increasing entry of educated young generation in the job market. So, increasing inflation and high unemployment rate were responsible for stagflation.

The set of control variables has been added to find out exact impact of economic policy uncertainty in each regime on private investment. The negative value of coefficient depicts that interest rate is negatively related with private investment. It shows that if

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[11] Where consumer demand was high only for food items, due to increased remittances (Amjad 2014).

interest rate increases by 1 percent, private investment declines by 0.18 percent. The negative relationship between investment and interest rate is consistent with the existing literature (Saghir and Khan 2012; Muhammad et al. 2013; Salman and Ahmad 2014).

The value of GDP, with positive coefficient of 7.69 shows that if GDP increases by 1 percent, private investment increases by 7.69 percent. It indicates that private investment increases with increase in economic output. The result is consistent with the previous literature (Sakr 1993; Sial et al. 2010; Haroon and Nasr 2011; Salman and Ahmad 2014). Public investment is positively related with private investment. Table 5.1 shows that with 1 percent increase in investment in activities which support private investment e.g. infrastructure facilities, there is 0.27 percent increase in private investment. The result supports the previous literature which explains that public and private investment are complementary for each other (Sakr 1993; Salman and Ahmad 2014).

Foreign aid is statistically significant and has negative impact on private investment. The result shows that with 1 percent increase in foreign aid to the country, private investment declines by 0.25 percent. This negative impact can be due to the reason that foreign aid has not been used for the long term productive economic activities or it was received in the time period when the economy collapsed either due to natural disasters or terrorism. Therefore, in such situations, investors lose confidence where their expectations and forecasts are not in accordance with the long-term investment outlook. The proxy for democratic institutions is statistically insignificant in the private investment model. It may be due to the reason that democratic institution have no particular impact on private investment activities. Democratic institutions in Pakistan are not strong enough to provide secure and certain business environment to investors.

Table 5.2 shows the average impact of policy uncertainty in democratic and autocratic regimes on private investment. It is the same model as used above with dummy variable D_1 used for all democratic regimes and D_2 for all autocratic regimes from 1972-2011. Moreover, institutional control variable is not used as there is already categorization of democratic and autocratic regimes. All the coefficients are highly significant. The constant term is statistically significant with coefficient -32.59. Policy uncertainty arising in democratic regimes affects private investment negatively. If policy uncertainty is

increased by 1 percent, private investment declines by 3.78 percent on average in era of democratic leader. This value is slightly lower in autocratic regimes, i.e., with 1 percent increase in policy uncertainty investment on average declines by 3.70 percent.

The average value of policy uncertainty for both regime types is almost the same which shows that private investment is predominantly affected by policy direction in both regimes. The reason for the same impact of policy uncertainty in both democratic and autocratic regimes is that measure of policy uncertainty is based on tax revenue collection. As the collected tax revenues was low in almost all the regimes so, private investment declined due to policy uncertainty arising due to lack of government effectiveness towards long term productive investment. This result is consistent with the hypothesis on policy uncertainty and investment that policy uncertainty lowers private investment. The result is consistent with the second hypothesis that policy uncertainty is high in both democratic and autocratic regimes.

As per economic theory, interest rate is negatively related with private investment with the coefficient 0.16. This explains that with 1 percent increase in interest rate, private investment declines by 0.16 percent and vice versa. Result supports the previous studies (Saghir and Khan 2012; Muhammad et al. 2013; Salman and Ahmad 2014). Public investment is positively linked with private investment with the coefficient 0.39. It indicates that with 1 percent increase in public investment that facilitates private investment, there is 0.39 percent increase in private investment.

Foreign aid is statistically significant and is negatively related with private investment which shows that on the one hand, foreign aid was received in times of political and economic chaos and on the other hand, it was used for other activities other than private investment. For example, a major part of foreign aid was used in rehabilitation of refugees of Afghan war. With 1 percent increase in foreign aid, private investment decreases by 0.34 percentage points. GDP is positively related with private investment. The result is consistent with the existing literature and shows that with 1 percent increase in GDP, private investment increases by 6.07 percentage points.

Table 5.1 GMM Estimates: Dependent Variable (Inv)

VARIABLES	Coefficients
POL*D1	-8.463 (0.093)*
POL*D2	-30.72 (0.000)***
POL*D3	-36.90 (0.000)***
POL*D4	-22.64 (0.000)***
POL*D5	-6.586 (0.013)***
POL*D6	-79.82 (0.002)***
R	-0.180 (0.001)***
PUB INV	0.267 (0.000)***
LOG(GDP)	7.691 (0.000)***
FOREIGN AID	-0.254 (0.011)***
DEMO INS	-0.003 (0.770)
CONSTANT	-43.73 (0.000)***
OBSERVATIONS	38
WALD CHI2 TEST	7.595
ENDOGENEITY TEST	0.0224
OVER IDENTIFICATION TEST	0.2974
R-SQUARE	0.956
D.W TEST	2.098

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5.2 GMM Estimates: Dependent Variable (Inv)

VARIABLES	Coefficients
POL*D1	-3.778 (0.011)*
POL*D2	-3.708 (0.024)***
R	-0.160 (0.031) ***
PUB INV	0.393 (0.000)***
LOG(GDP)	6.072 (0.000)***
FOREIGN AID	-0.345 (0.364)
OBSERVATIONS	38
WALD CHI2 TEST	6.775
ENDOGENEITY TEST	0.034
OVER IDENTIFICATION TEST	0.390
R-SQUARE	0.9201
D.W TEST	1.966

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

5.3 Impact of Economic Policy Uncertainty and Leadership Transitions on Unemployment

As shown in the table 5.3, all the coefficients are significant except foreign aid and democratic institutions. The coefficient for constant term is 77.59. The coefficient of first interaction term which shows impact of policy uncertainty in Zulfiqar Ali Bhutto's regime on unemployment rate is 37.80. It can be explained as with 1 percent increase in policy uncertainty, unemployment is increased by 37.80 percent. In Bhutto era, two strong classes i.e. industrial elites and landed elites emerged, which widened the gap between rich and poor. Hence, poor were not given equal employment opportunities. Moreover, nationalization of small and large scale industries shook the investor's confidence which affected the unemployment rate positively. Other factors were decline in foreign direct inflows, and high production cost due to outdated mode of production. A huge amount of government expenditure was spent on unproductive activities instead of investment on growth promoting areas. Moreover, tax revenue collection was low which increased the budget deficit. Hence, all these factors were cause of higher unemployment rate in spite of considerable investment/GDP ratio. The deviation from government capabilities i.e. inefficiency in tax revenue collection, resulted in mismanagement and resources were not properly utilized for productive investment. The amount of collected tax revenues were not properly channelized for economic growth and social welfare.

The coefficient for policy uncertainty in Zia regime is 41.97. The positive relationship shows that with 1 percent increase in policy uncertainty, unemployment increases by 41.97 percent. Zia regime was a decade in which there was high inflow of foreign aid along with remittances. Hence, investment in sectors like intermediate goods and construction was high but due to usage of more capital intensive techniques, employment opportunities were far less.

The coefficient for unemployment due to policy uncertainty in Benazir era is -37.92. This coefficient explains that with 1 percent increase in policy uncertainty in Benazir era, there is 37.92 percent decrease in unemployment. This result is rejecting the third hypothesis that policy uncertainty arising from leadership transitions increase the

unemployment level. After denationalization, as there were more incentives for private investment, which restored investor's confidence and employment opportunities were generated. Government was urged by IMF to increase private investment incentives and set a favorable environment to attract FDI. Moreover, import policy and foreign direct investment policy was liberalized, which were helpful in lowering unemployment rate though the channel of increased production activities. The SAP (three year programme) started by IMF in 1988 helped to increase tax revenues through indirect taxation. Tax structure was also transformed with the introduction of 1991 NFC award and further improvement in 1996 NFC award. The Annual Development Programmes were financed by resources transferred from federal to provincial governments, and investment incentives were also provided in rural areas which generated employment opportunities.

In Nawaz Sharif regime, the coefficient for policy uncertainty is 5.977. The positive relationship shows that with 1 percent increase in policy uncertainty, unemployment rate is increased by 5.977 percent. Under SAP, government expenditures had to be decreased but development expenditures were cut down and government unproductive expenditures were on the same level which further restricted investment opportunities and hence, much less employment opportunities. So, employment growth was the same as in 1980s i.e. 2.4%. Another factor was fluctuations in agriculture output due to weather conditions and hence, there was much less labor absorption in agricultural and industrial sector. After Zia regime, as the financial assistance was cut down, the next government had to face budget deficit that increased with the passage of time. The corruption charge on Hubco, Pakistan's largest foreign owned company, lowered the investor's confidence. Hence, investment level decreased as a result of shrinking foreign savings which lowered after May 1998. Due to huge fiscal deficit, social sector expenditures were very low and as a result, poverty and unemployment rate was high. Moreover, due to political uncertainty, foreign direct investment was very low which curtailed employment generation. No attention was given to public welfare programs and saving rate was very low. As the measure of policy uncertainty is linked with efficiency of government to take steps for social uplift, a little effort can be seen on the part of government.

Similarly, in Musharraf era, policy uncertainty is significantly and positively related with unemployment rate with coefficient 5.608. It shows that with 1 percent increase in policy uncertainty, unemployment rate is increased by 5.608 percent. Although GDP growth was higher as compared to previous decade and budget deficit was controlled substantially, yet little attention was paid to improve the living standard of people as there were no long term employment generation schemes. The entry of educated young generation with high female participation ratio, further lowered the formal employment opportunities. As the measure of policy uncertainty is based on tax revenue collection, Tax/GDP ratio was low in Pervez Musharraf's regime. So, the government lacked its capabilities to extract tax revenues at its potential level and finance these in development projects and employment generating schemes.

In Zardari era, policy uncertainty was high, as well as tax revenue collection was low alongwith deficit crisis. Hence a reduction in investment caused unemployment rate to be high. As shown in the table, policy uncertainty is positively related with unemployment with coefficient 76.73. With 1 percent increase in policy uncertainty, unemployment is increased by 76.73 percent. With the Global financial crisis in 2008, those sectors were mostly influenced that were more exposed to global economy e.g. agriculture and construction. As the production level is linked with labors, most of the labors were displaced due to stagnant businesses. Moreover, due to increased remittances, consumer demand has grown substantially. Hence, a large portion of GNP had gone to fulfill the increased consumer demand instead of productive investment. This fact also explains the low employment generation in this era (Amjad 2014).

Population growth is positively related with unemployment rate with coefficient 3.607. With 1 percent increase in population rate, unemployment rate is increased by 3.607 percent. This result is in accordance with the existing literature (Kalim 2003; Maqbool et al. 2013). With the more number of unemployed labor force, in the scenario of low labor demand, unemployment rate will be high. The coefficient for inflation rate in unemployment model is -0.451, which explains that with 1 percent increase in inflation rate, unemployment rate is decreased by 0.451 percent. The result supports the previous studies (Zaman et al. 2011; Maqbool et al. 2013). The short run as well as long run Philips curve is valid in Pakistan economy because due to rigidities in labor market, long

term wage contracts are not supposed to be revised in spite of rational expectations in the inflation model (Hasan 1988; Zaman et al. 2011; Gul et al. 2012). Another aspect is that during contractionary monetary policy, aggregate demand in the economy surpasses the potential level of the economy, it causes lower unemployment and higher inflation with a time lag. The phenomenon of tradeoff between inflation and unemployment rate in Pakistan can be observed in the military regimes when inflation rate was low and unemployment was high and also in Benazir era when unemployment was low and inflation rate was high.

GDP is negatively linked with unemployment rate. With 1 percent increase in GDP, unemployment rate decreases by 8.948 percent. The result is consistent with the existing literature (Kalim 2003; Akhtar and shehnaz 2005; Maqbool et al. 2013). In the military regimes, we can observe that GDP growth rate was high due to increased capital inflows in the form of financial assistance and remittances, which induced consumer-led growth. Production level which increased due to high consumption level, provided temporary employment opportunities but long term productive investment and employment opportunities were missing.

Foreign aid is positively related with unemployment rate. If foreign financial assistance increase by 1 percent, unemployment rate increases by 0.282 percent. Financial aid has positive impact on unemployment rate as there was unproductive use of foreign capital inflows. There was a lack of long term development projects and hence, employment generating schemes were not implemented properly. There was no substantial decline in unemployment level. Moreover, financial aid which arose as a result of Afghan war and 9/11, led to loss of investor's confidence and hence, affected unemployment rate positively.

The impact of democratic institutions is positive on unemployment with coefficient 0.077. If democratic institutions are increased by 1 percent, unemployment rate increases by 0.077 percent. As the democratic institutions in Pakistan are weak, where long term policies for human resource management are missing and hence, labor demand is low. This is also a fact that democracy without good governance is mere a political game.

Table 5.3 GMM Estimates: Dependent Variable (Unemp)

VARIABLES	Coefficients
POL*D1	37.80 (0.001)***
POL*D2	41.97 (0.002)***
POL*D3	-37.92 (0.093)*
POL*D4	5.977 (0.080)*
POL*D5	5.608 (0.097)*
POL*D6	76.73 (0.066)*
INF	-0.451 (0.000)***
POP	3.607 (0.000)***
LOG(GDP)	-8.948 (0.013)***
FOREIGN AID	0.282 (0.134)*
DEMO INS	0.077 (0.065)*
CONSTANT	77.59 (0.004)***
OBSERVATIONS	38
WALD CHI2 TEST	14.263
ENDOGENEITY TEST	0.0008
OVER IDENTIFICATION TEST	0.9265
R-SQUARE	0.8052
D.W TEST	1.908

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5.4 GMM Estimates: Dependent Variable (Unemp)

VARIABLES	Coefficients
POL*D1	4.461 (0.096)*
POL*D2	4.068 (0.174)*
INF	-0.261 (0.000)***
POP	2.631 (0.000)***
LOG(GDP)	-1.571 (0.000)***
FOREIGN AID	0.160 (0.364)
OBSERVATIONS	39
WALD CHI2 TEST	9.1672
ENDOGENEITY TEST	0.0102
OVER IDENTIFICATION TEST	0.5974
D.W TEST	1.8960

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

In the table 5.4, the constant term has been excluded as it was insignificant. The policy uncertainty, as measured by standard deviation of relative political extraction, is found to have almost same impact on unemployment rate in both the military and democratic regimes. This effect is same because the measure of policy uncertainty is based on tax revenue collection, as the collected tax revenues in both the democratic and autocratic regimes were below the potential to carry out long term development projects. Hence, unemployment rate did not show substantial decline. On average, both democratic and military regimes were inefficient in providing employment opportunities as autocratic regimes used heavy capital inflows in unproductive sectors instead of long term profitable investments while democratic regimes were characterized by political instability and reversal of decisions and economic policies for their political considerations. Another reason for the same impact of both the regimes is that the average value of democratic regimes is calculated in a single dummy variable D_1 as well as average value of military regimes is calculated in another single dummy variable D_2. With 1 percent increase in policy uncertainty, there is 4.461 percent increase in unemployment rate in democratic regimes and 4.068 percent increase in unemployment rate in military regimes.

The coefficient for inflation rate in this model is -0.261. This explains that with 1 percent increase in inflation rate, unemployment rate decreases by 0.261 percentage points. The short run as well as long run Philips curve is valid in Pakistan economy because due to rigidities in labor market, long term wage contracts are not supposed to be revised in spite of rational expectations in the inflation model (Hasan 1988; Gul et al. 2012). Moreover, uncertainty caused by economic policy make the policies and institutions less credible for the future time periods. Another aspect is that during contractionary monetary policy, aggregate demand in the economy surpasses the potential level of the economy, it causes lower unemployment and higher inflation with a time lag.

The coefficient for population is 2.631. The positive coefficient shows that with 1 percent increase in population growth, unemployment increases by 2.631 percentage points. This result is in accordance with the existing literature (Kalim 2003; Maqbool et al. 2013). The uncertain economic and political conditions are cause of decline in investment activities and hence less employment opportunities. Along with this fact, entry of females from 1990s has increased the labor force which is unemployed.

The coefficient of GDP is negative for unemployment rate which explains that with 1 percent increase in GDP, unemployment rate decreases by 1.571 percentage points. This result is consistent with the existing literature (Kalim 2003; Akhtar and shehnaz 2005; Maqbool et al. 2013; Khan et al. 2013). This is a fact that although in military regimes, GDP was high and temporary employment opportunities were available but in the observed time period for empirical analysis, no long term policy was made for eradication of persistent unemployment in the country.

The coefficient of foreign aid is 0.160 for unemployment rate. It shows that with 1 percent increase in foreign aid, unemployment rate increases by 0.160 percent. Neither the financial aid nor the increased remittances in 1980s and 2000s were used for productive investment or employment generation schemes. Foreign direct investment increased in temporary economic boom but due to usage of more capital intensive techniques in industries, unemployment rate was high. Aid has a positive impact on economic growth in developing countries with good monetary, fiscal and trade policies. While countries with poor policies, on the other hand, have negative impact of aid on growth (Burnside and Dollar 2000). Moreover, until and unless technical assistance is not transferred, aided funds cannot be utilized efficiently to generate economic growth (Mohey-ud-din 2005).

5.4 Impact of Economic Policy Uncertainty and Leadership Transitions on Inflation

In the fifth model, inflation rate is the dependent variable while interaction term of political leaders and policy uncertainty, broad money, GDP and Government consumption expenditures are the dependent variables. The constant term is significant with coefficient 63.25. The first interaction term that explains the impact of policy uncertainty in Z.A Bhutto era is positively linked with inflation. With 1 percent increase in policy uncertainty, there is 55.66 percent increase in inflation. In Bhutto regime, financial sector was working inefficiently due to credit ceiling, and control on deposit and lending rates. Hence, there were rigidities in providing credit to productive sectors. Inflation was the highest as 30% in 1974. In Bhutto era, there was huge loss of foreign exchange reserves due to separation of East Pakistan. Moreover, oil price shock of 1973 was a main cause of high inflation.

The next interaction term which indicates the impact of policy uncertainty in Zia era is negatively linked with inflation. With 1 percent increase in policy uncertainty, there is 14.92 percent decrease in inflation. The second hypothesis is rejected in the case of military regimes. Budget deficit and increase in money supply are causes of high inflation. Narrow money supply increased with average 21 percent and government expenditures were also high in Zia regime, but these expenditures were financed through heavy capital inflows which reduced the inflationary fluctuations.

The impact of policy uncertainty in Benazir era is positively linked with inflation. With 1 percent increase in policy uncertainty, there is 13.97 percent increase in inflation. In 1990s under SAP, credit ceiling was replaced by credit ratio to individual banks and loans to private sectors were increased. The reforms helped to improve the private investment level. But, a country under constrained budget deficit is unable to sustain its macroeconomic indicators. With uncertainty in government existence and its performance, there was also uncertainty in monetary policy. To finance the increased fiscal deficit, government relied on inflation tax.

The impact of policy uncertainty in Nawaz Sharif era is positively linked with inflation. With 1 percent increase in policy uncertainty, there is 14.66 percent increase in inflation. The inflation rate was high in 1990s as compared to previous era. One of the main reason of high inflation rate was conditionality of SAP under which commodity administered prices were increasing, which devalued the Pakistani rupee[12]. After that, nuclear test of May 1998 further lowered foreign reserves and there was a rapid rise in import prices of goods and services.

In Musharraf regime, the coefficient for policy uncertainty is -4.697. The negative relationship shows that with 1 percent increase in policy uncertainty, inflation rate is decreased by 4.697 percent. This result is contradictory to second hypothesis. After nuclear test, there was continuous decline in aggregate demand. Afterwards, with financial assistance, as Pakistan was a major player in Afghan terror war, foreign exchange reserves were considerably high which also proved helpful for monetary and fiscal policy. In this

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[12] Under this conditionality, subsidies were provided to commodity prices. To fulfill this conditionality government financed its fiscal deficit from money creation. The increased money creation devalued the currency.

era, rupee and exchange rate policy were working with full integration. Moreover, loans and funds were received to finance the public expenditures.

In Zardari regime, the coefficient for policy uncertainty is 22.04. The positive relationship shows that with 1 percent increase in policy uncertainty, inflation rate increases by 22.04 percent. Inflation in Pakistan is primarily due to unsustainable fiscal deficit (Agha and Khan 2006). Unstable and less capable governments are more likely to face fiscal deficit. Therefore, it finance its expenditures from seigniorage which leads to high inflation (Cukierman et al. 1992). The increased oil prices in the early year were not transferred to domestic consumers by Musharraf government and after general elections, inflation rate was more than doubled at the end of 2008 as compared to 2007. In Zardari era, oil price shock was a major cause of increase in food prices along with increase in import prices of all major commodities. With the rise in budget deficit, government was struggling to control inflation. Foreign exchange reserves were reduced, which depreciated exchange rate. Among other factors, there were internal supply shocks (earthquake 2008, flood 2010) which increased the production cost and hence, inflation.

The difference between inflation rate in democratic and military regimes is due to high degree of political uncertainty in democratic regimes, where uncertain time period in democratic regimes lead them towards short term policies and high government expenditures. The causality from politics to inflation is mainly related to the demand for public expenditures that are financed by the inflation tax (pluralist view). Later on, when inflation rises to high levels, it is difficult for a weak and unstable government to resist the political pressures asking for accommodating policies (Paldam 1987). Politicians as the clients of their allied interest groups/ elites supporters gain private benefits through money creation which lead to inflation in the economy (State-capture Approach). According to Cukierman et al. (1992) countries with a more unstable and polarized political system have more inefficient taxation structures and, thus, rely heavily on seigniorage.

If we look at the case of democratic regimes in Pakistan, both, pluralist as well as state-capture approaches well verify the fact of a weaker and poorly accountable democracy; a democracy which remained unable to diffuse or sustain public and interest groups pressure as well as to make the culprits accountable for their manipulation of economic outcomes towards inflationary taxes while military regimes are relatively more resilient against public

as well as elite pressures and furthermore, are attributed by heavy foreign inflow on account of different geo-political conditions which makes them rely on less inflationary financing (Inflation taxes) or money creation. High fiscal deficits which are financed through seigniorage, leads to high inflation in Pakistan (Ahmed 2007). So, the inflation in democratic regimes was high and it was low in military regimes.

With 1 percent increase in money supply, inflation increases by 0.397 Percent. This result is consistent with the previous studies (Khan and Qasim 1996; Khan and Axel 2006; Abdullah and Kalim 2009; Bashir et al. 2011; Aurangzeb and Haq 2012). The relationship follows the hypothesis that inflation in Pakistan is a monetary phenomenon. When the economy operated under expansionary monetary policy, after a time lag, double digit inflation was observed in the economy (Kemal 2006). In some cases, excessive money growth because of seigniorage leads to high inflation rate.

With 1 percent increase in government expenditures, there is 1.233 percent increase in inflation. Increased government expenditures put pressure on domestic and foreign reserves. Government may also move towards seinorage. Hence inflation is supposed to be increased. The coefficient of GDP for inflation is -23.71. It explains that with 1 percent increase in GDP, inflation tends to decline by 23.71 percent. When the economic performance of an economy improves, it move towards stable macroeconomic policies and hence, stable macroeconomic indicators (Bashir et al. 2011). Impact of foreign aid on inflation is positive in this model with the coefficient 0.371. It explains that with 1 percent increase in foreign aid, inflation rate is increased by 0.371 percent. If the foreign aid is not utilized for the productive economic activities, it spurs immediate consumption and hence, an increase in general price level. The coefficient of democratic institutions is 0.558. It explains that with 1 percent increase in democratic institutions, inflation rate is increased by 0.558 percent. Democracy in Pakistan has mostly shown political uncertainty in general and hence, discontinued policies. In addition, this fact coincides with budget deficit in all democratic regimes, hence increased general price level.

Table 5.5 GMM Estimates: Dependent Variable (Inf)

VARIABLES	Coefficients
POL*D1	55.66 (0.142)*
POL*D2	-14.92 (0.123)*
POL*D3	13.97 (0.176)*
POL*D4	14.66 (0.062)*
POL*D5	-4.697 (0.091)*
POL*D6	22.04 (0.023)**
M2	0.397 (0.121)*
GC	1.233 (0.021)**
LOG(GDP)	-23.71 (0.003)***
FOREIGN AID	0.371 (0.134)*
DEMO INS	0.558 (0.002)***
CONSTANT	63.25 (0.001)***
OBSERVATIONS	39
WALD CHI2 TEST	6.7434
ENDOGENEITY TEST	0.0343
OVER IDENTIFICATION TEST	0.4674
R-SQUARE	0.722
D.W TEST	2.0608

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, *$p<0.1$

Table 5.6 GMM Estimates: Dependent Variable (Inf)

VARIABLES	Coefficients
POL*D1	10.82 (0.112)*
POL*D2	12.99 (0.181)*
M2	0.498 (0.000)***
GC	1.906 (0.008)***
LOG(GDP)	-6.423 (0.134)*
FOREIGN AID	0. 051 (0.364)
CONSTANT	84.19 (0.075)*
OBSERVATIONS	38
WALD CHI2 TEST	9.1672
ENDOGENEITY TEST	0.0102
OVER IDENTIFICATION TEST	0.5974
D.W TEST	2.001

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5.6 shows the average impact of democratic and autocratic regimes and policy uncertainty on inflation. Again, there is almost same impact of policy uncertainty on democratic and autocratic regimes on inflation with a slightly higher impact of policy uncertainty in autocratic regimes. The measure of policy uncertainty is based on lack of capability of tax revenue collection by the government which also means policy inconsistency. As the tax/GDP ratio in Pakistan was low in both regimes, tax revenues were insufficient to finance public expenditures. As a result, democratic regimes relied on seigniorage or inflation tax while autocratic regimes relied on funds or loans from international institutions. All these factors led to high inflation afterwards. The democratic regimes also faced stagflation most often. As there was lack of long term sustainable policies, the inflation rate rose to its peak at the end of every autocratic regime. For example, due to heavy capital inflows, growth was consumer-led and there was a lack of productive investment for sustainable growth in autocratic regimes. The result was shortage of energy resources with gradually increasing inflation rates. Inflation rate was also rising due to global oil price hike. Excess liquidity and cheaper loans fueled the consumer demand further.

With 1 percent increase in money supply, inflation is increased by 0.498 Percent. The relationship follows the hypothesis that inflation in Pakistan is a monetary phenomenon. When the economy works with expansionary monetary policy, after a time lag, double digit inflation was observed in the economy. Printing of new money to cover budget deficit and creation of interest-bearing debt affects the general price level which harms the economy (Kemal 2006; Riazuddin 2006; Agha and Khan 2006).

With 1 percent increase in government consumption, there is 1.906 percent increase in inflation. The result is consistent with the previous studies (Bashir et al. 2011). Increased government consumption insert pressure on domestic and foreign reserves. Government may also move towards seinorage. Hence inflation is supposed to be increased.

The coefficient of GDP for inflation is -6.423. It explains that with 1 percent increase in GDP, inflation tends to decrease by 6.423 percent. Higher output growth is negatively related to inflation (Abdullah and Kalim 2009; Bashir et al. 2011; Aurangzeb and Haq 2012). When monetary and fiscal policy work in coordination to achieve economic growth as well as keeping price stability, other macroeconomic indicators also move towards sustainability.

Impact of foreign aid on inflation is insignificant in this model. It may be due to the fact that foreign aid is used in unproductive activities in the short run and has no effect in the long run.

Chapter 6: Conclusion and Policy recommendation

6.1 Conclusion

Starting with our research question to investigate the impact of policy uncertainty with frequent government changes on key macroeconomic indicators, we employ Generalized method of moments (GMM) for empirical analysis. It has been concluded that policy uncertainty arising from leadership transitions is detrimental for economic growth in Pakistan. As it is evident from the discussion in chapter 5 that in all the military regimes private investment showed a significant increase, which was due to increased financial assistance and remittances rather than effective policies for long term investment projects. Democratic regimes have experienced more frequent collapse. Hence, working under military pressure, structural reforms were not carried out for potential gains. In nut shell, political leaders were more concerned about their political considerations.

Same effect can be seen on unemployment rate. In all the regimes, whether democratic or autocratic, no long term employment generating policy was devised. In military regimes, although due to increased foreign assistance and remittances, temporary jobs were available. Yet, due to lack of potential industrial projects and inefficiency of agricultural sector in labor absorption, economy was having a huge labor force which was out of work.

Policy uncertainty i.e. inefficiency of government in extracting resources and use them for public gains is positively related with inflation rate. Democratic government's reliance on seigniorage while autocratic government's dependence on foreign loans and funds trapped the economy in inflation. Moreover, external and internal supply shocks were also cause of high inflation in the democratic regimes. But, as a matter of fact, consequences of sub-optimal policies devised by military governments had to be borne by democratic governments most often.

As per second objective of the study, that whether democratic or autocratic government creates higher uncertainty and affects economic growth in positive or negative way, it can be concluded that the impact of both regimes on key macroeconomic indicators is same. In both democratic and autocratic regimes, long term policies for sustainable economic growth were missing. The reason was that the autocratic regimes misused the foreign assistance under the autonomous political powers and democratic governments were characterized by political

instability with reversal of economic decisions. As the measure of policy uncertainty is based on deviation from tax revenue collection. None of the government was able to carry out taxation reforms. Hence, until and unless there is proper resource mobilization structure, there are less chances of sustainable economic growth.

6.2 Policy recommendation

- As it is evident in the history that Pakistan has mostly shown fluctuations in key macroeconomic indicators. All the political regimes were incapable to extract potential tax revenues and use them for development projects under long term policies. The main reason is the discontinuation of existing policies by new government. There is a need to ensure policy continuity and long term policy enforcement for sustainable economic growth.

- Monetary and fiscal policy needs to work in coordination to stimulate economic growth, making prices and interest rate stable, and avoiding crowding out of private investment.

- There should be accessible information of inflation fluctuations and thus forecasts to the public which affect inflation expectations and hence, investment and hiring process.

- 7th NFC awards which allow the provinces to use the transferred funds should also encourage to raise their own-source revenues. This would be helpful in achieving required tax revenues for the public benefits.

- Strengthen the institutional mechanism to create a stable policy environment that is essential to build investor's confidence and stimulates economic growth.

Appendix

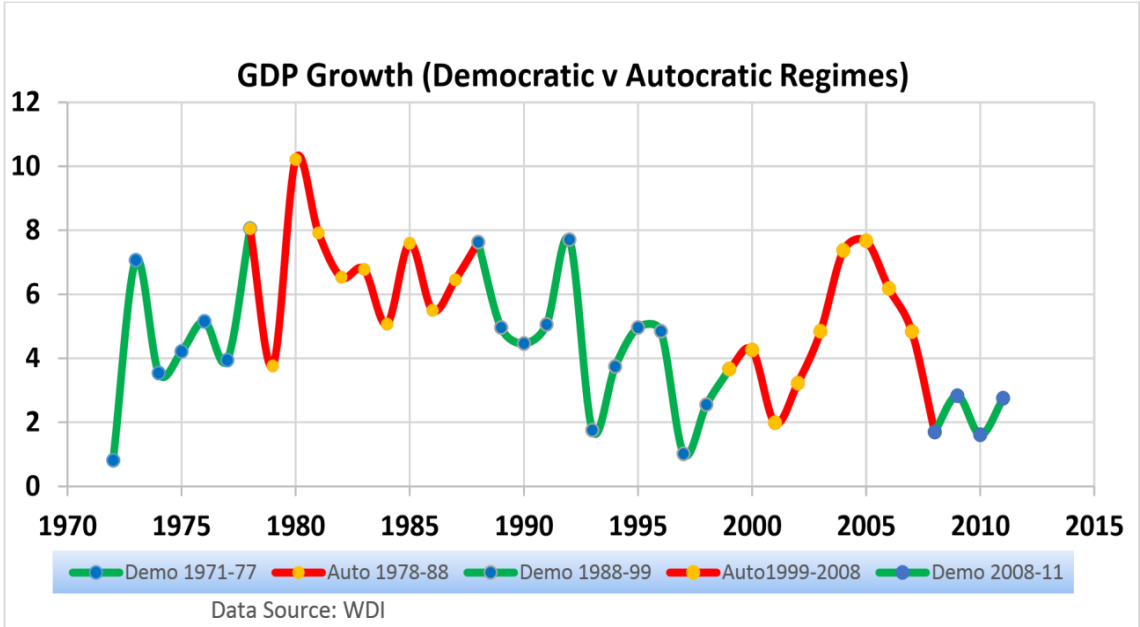**Figure 1.2 GDP Growth in Democratic vs Autocratic regimes**

Table 1.1: *Key Macroeconomic Indicators*

Year	GDP Growth Rate	Inflation rate	Unemployment rate	Private GFCF (as % of GDP)
1970s	4.7	12.5	2.4	5.0
1980s	6.3	7.2	3.6	7.8
1990s	4.0	9.7	5.7	9.2
2000-01	2.0	4.4	6.1	10.1
2001-02	3.1	3.5	7.8	11.1
2002-03	4.7	3.1	7.8	11.1
2003-04	7.5	4.6	8.3	10.9
2004-05	9.0	9.3	7.7	13.1
2005-06	5.8	7.9	7.6	13.5
2006-07	6.8	7.8	6.2	12.6
2007-08	3.7	12.0	5.2	12.8
2008-09	1.7	20.8	5.2	11.6
2009-10	3.8	11.7	5.5	10.4
2010-11	3.4	13.7	6.0	9.3

Source: SBP (various issues), WDI

Section 4.1

Derivation of Measure of Economic Policy Uncertainty

Arbetman and Kugler (1995) construct a measure of relative political extraction (RPE). Finding the RPE and taking its standard deviation is used as measure of policy uncertainty (Feng 2001). It can be found as:

1- First, an ordinary least squares regression is applied on the following model:

Model1: rpe_gdp

$$\frac{Tax}{GDP} = \beta_0 + \beta_1(time) + \beta_2\left(\frac{Mining}{GDP}\right) + \beta_3\left(\frac{Export}{GDP}\right) + \beta_4\left(GDP\ per\ capita\right) + \beta_5(OECD) + \beta_6\left(Inclusion\ Dummy\right) + \varepsilon$$

Model 2: rpe_agri

$$\frac{Tax}{GDP} = \beta_0 + \beta_1(time) + \beta_2\left(\frac{Mining}{GDP}\right) + \beta_3\left(\frac{Agriculture}{GDP}\right) + \beta_4\left(\frac{Export}{GDP}\right) + \beta_5(OECD) + \beta_6\left(Inclusion\ Dummy\right) + \varepsilon$$

Basically on the right hand side of equation, we include the sectors which are major sources of tax revenue for the country.

2-In the second step, the predicted value of tax ratio is attained using the parameter estimates obtained from the first step. The following ratio is calculated:

Relative Political Extraction =Actual Government Revenue/ Predicted Government Revenue

3-Third, if the above ratio is larger than 1, then the government is defined as politically "strong" as it can collect more taxes than prediction, analyzing the available economic factors. Such a government is also considered as politically capable and efficient. If the ratio is less than 1, then the government fails to collect the taxes from the available economic resources and is regarded as politically less capable.

Table 4.2 ADF (Unit Root Test)

Variables	Without Trend				With Trend			
	Level	Result	1st Diff	Result	Level	Result	1st Diff	Result
Private Investment(Inv)	-1.39	S	-1.65	S	1.51	NS	-1.82	NS
Inflation Rate(Inf)	-3.22	S			-3.31	S		
Unemployment Rate(Unemp)	-1.51	S	-1.6	S	-2.14	NS	-2.24	NS
Policy Uncertainty (SD(rpe_gdp))	-3.66	S			-3.9	S		
Interest Rate(R)	-2.51	S			-2.9	S		
LGDP Constant LCU (GDP)	-2.87	S	-1.92	S	-0.35	NS	-0.64	NS
M2 to GDP ratio(M2/GDP)	-3.32	S			-3.71	S		
Foreign Aid (Faid)	-2.17	S			-3.79	S		
Population Growth Rate (Pop)	1.01	NS	-1.483	S	-2.82	S	-5.3	S
Public Investment (Pinv)	-0.59	NS	-0.477	NS	-3.91	S	-1.83	NS
Govt. Final Consumption (GC)	-1.39	S	-1.65	S	-1.51	NS	-1.83	NS
Democratic Institutions (INS)	-1.97	S	-1.91	S	-5.71	S	-5.76	S

Note: At level, 5% critical value is -1.687 for the case of no-trend, and -3.544 when a trend is included. When first difference is taken, 5% critical value is -1.690 for the case of no-trend, and -3.548 when a trend is included. S stands for stationary series and NS stands for non-stationary series.

References

Abel, A. B. and Eberly, J. C., (1996), "Optimal investment with costly reversibility", *The Review of Economic Studies*, 63(4):581-593.

Abel, A. B., (1983), "Optimal investment under uncertainty", *The American Economic Review*, 228-233.

Agha, A. I. and Khan, M. S., (2006), "An empirical analysis of fiscal imbalances and inflation in Pakistan", *SBP research Bulletin*, 2(2):343-362.

Ahmad, I. and Qayyum, A., (2008), "Effect of government spending and macroeconomic uncertainty on private investment in services sector: Evidence from Pakistan", *European Journal of Economics, Finance and Administrative Sciences*, (11):84-96.

Ahmad, I. and Qayyum, A., (2009), "Role of public expenditures and macroeconomic uncertainty in determining private investment in large scale manufacturing sector of Pakistan", *International Research Journal of Finance and Economics*, 26:34-40.

Ahmed, H., (2007), "Is Inflation a Fiscal Phenomenon in Pakistan?", Department of Economics, University of Warwick.

Ahmed, I. and Qayyum, A., (2007), "Do public expenditure and macroeconomic uncertainty matter to private investment? Evidence from Pakistan", *The Pakistan Development Review*, 145-161.

Aizenman, J. and Marion, N. P., (1993), "Policy uncertainty, persistence and growth", *Review of international economics*, 1(2):145-163.

Alesina, A. and Ozler, S. and Roubini, N. and Swagel, P., (1996), "Political instability and economic growth", *Journal of Economic growth*, 1(2):189-211.

Alesina, A. and Tabellini, G., (1989), "External debt, capital flight and political risk", *Journal of International Economics*, 27(3):199-220.

Ali, A. M., (2001), "Political instability, policy uncertainty, and economic growth: An empirical investigation", *Atlantic Economic Journal*, 29(1):87-106.

Amjad, R., (2014), "Pakistan's Growth Spurts and Reversals: A Historical Perspective", *The Lahore Journal of Economics*, *19*, 91.

Anderson, P. L., (2014), "Persistent Unemployment and Policy Uncertainty: Numerical Evidence from a New Approach", *Business Economics*, 49(1):2-20.

Arbetman, M. and Kugler, J. (Eds.). (1997), "*Political capacity and economic behavior*", Westview Press.

Arbetman, M. and Kugler, J., (1995), "The Politics of Inflation: An Empirical Assessment of the Emerging Market Economies", *Establishing Monetary Stability in Emerging Market Economies*, 81-100.

Arbetman-Rabinowitz, M. and Johnson, K., (2007), "Relative political capacity: empirical and theoretical underpinnings", *Sentia Group, Claremont, Calif.*

Arslan, M. and Zaman, R., (2014), "Unemployment and Its Determinants: A Study of Pakistan Economy (1999-2010)", *Journal of Economics and Sustainable Development, ISSN*, 2222-1700.

Aryeetey, E., (1994), *"Supply and demand for finance of small enterprises in Ghana"* (No. 251), World Bank Publications.

Asteriou, D. and Price, S., (2005), "Uncertainty, investment and economic growth: evidence from a dynamic panel", *Review of Development Economics*, 9(2):277-288.

Azeng, T. F. and Yogo, T. U., (2013), "Youth unemployment and political instability in selected developing countries", *African Development Bank Group Working Paper Series*, (171).

Baker, S. R. and Bloom, N. and Davis, S. J., (2013), "Measuring economic policy uncertainty", *Chicago Booth research paper*, 13(2).

Ball, L. and Cecchetti, S. G. and Gordon, R. J., (1990), "Inflation and uncertainty at short and long horizons", *Brookings Papers on Economic Activity*, 215-254.

Ball, L., (1992), "Why does high inflation raise inflation uncertainty?", *Journal of Monetary Economics*, 29(3):371-388.

Bashir, F. and Nawaz, S. and Yasin, K. and Khursheed, U. and Khan, J. and Qureshi, M. J., (2011), "Determinants of inflation in Pakistan: An econometric analysis using Johansen co-integration approach", *Australian Journal of Business and Management Research*, 1(5):71-82.

Bernanke, B. S., (1983), "Non-monetary effects of the financial crisis in the propagation of the Great Depression", *National Bureau of Economic Research*, No. w1054.

Bhar, R. and Hamori, S., (2004), "The link between inflation and inflation uncertainty: evidence from G7 countries", *Empirical Economics*, 29(4):825-853.

Bloom, N., (2000), "The real options effect of uncertainty on investment and labor demand".

Bloom, N., (2009), "The impact of uncertainty shocks", *Econometrica*, 77(3):623-685.

Bunce, V. and Csanadi, M., (1993), "Uncertainty in the transition: post-communism in Hungary", *East European Politics and Societies*, 7(2):240-275.

Burnside, C. and Dollar, D., (2000), "Aid, growth, the incentive regime, and poverty reduction", *The World Bank: Structure and Policies*, *3*, 210.

Caballero, R. J., (1991), "On the sign of the investment-uncertainty relationship", *The American Economic Review*, 279-288.

Caporale, B. and Caporale, T., (2002), "Asymmetric effects of inflation shocks on inflation uncertainty", *Atlantic Economic Journal*, *30*(4):385-388.

Cheema, A. R. and Atta, A., (2014), "Economic Determinants of Unemployment in Pakistan: Co-integration Analysis", *International Journal of Business And Social Science*, *5*(3).

Cheema, A. R. and Atta, A., (2014), "Economic Determinants of Unemployment in Pakistan: Co-integration Analysis, *International Journal of Business And Social Science*, *5*(3).

Cheema, F., (2004), "Macroeconomic stability of Pakistan: the role of the IMF and World Bank (1997-2003)", *ACDIS Occasional Paper*.

Cheibub, J. A., (1998), "Political regimes and the extractive capacity of governments: Taxation in democracies and dictatorships", *World Politics*, *50*(03):349-376.

Choi, S. and Loungani, M. P., (2015), "Uncertainty and Unemployment: The Effects of Aggregate and Sectoral Channels*"*, *International Monetary Fund*.

Cukierman, A. and Edwards, S. and Tabellini, G., (1989), "*Seigniorage and political instability"* (No. w3199), National Bureau of Economic Research.

Cukierman, A. and Meltzer, A. H., (1986), "A theory of ambiguity, credibility, and inflation under discretion and asymmetric information", *Econometrica: Journal of the Econometric Society*, 1099-1128.

De Gregorio, J., (1992), "Economic Growth in Latin America", *Journal of development economics*, *39*(1):59-84.

Devereux, M., (1989), "A positive theory of inflation and inflation variance", *Economic Inquiry*, *27*(1):105-116.

Dixit, A. K. and Pindyck, R. S., (1994), "Investment under uncertainty", *Princeton university press*.

Drukker, D. M., (2010, June), "An introduction to GMM estimation using Stata", In *German STATA Users' Group Meeting, unpublished*.

Evans, M. and Wachtel, P., (1993), "Inflation regimes and the sources of inflation uncertainty", *Journal of Money, Credit and Banking*, 475-511.

Fatima, A. and Waheed, A., (2014), "Economic uncertainty and growth performance: a macroeconomic modeling analysis for Pakistan", *Quality and Quantity*, *48*(3):13611387.

Feng, Y., (2001), "Political freedom, political instability, and policy uncertainty: A study of political institutions and private investment in developing countries", *International Studies Quarterly*, 45(2):271-294.

Findlay, R., (1990), "THE NEW POLITICAL ECONOMY: ITS EXPLANATORY POWER FOR LDCs", *Economics and Politics*, *2*(2):193-221.

Fonseca, F. J. and Ventosa-Santaularia, D., (2011), "Revenue elasticity of the main federal taxes in Mexico", *Latin american journal of economics*, *48*(1):89-111.

Fountas, S. and Ioannidis, A. and Karanasos, M., (2004), "Inflation, inflation uncertainty and a common European monetary policy", *Manchester School*, 72(2):221-242.

Friedman, M., (1977), "Nobel lecture: inflation and unemployment", *The Journal of Political Economy*, 451-472.

Ghani, E. and Din, M. U., (2006), "The impact of public investment on economic growth in Pakistan", *The Pakistan Development Review*, 87-98.

Government of Pakistan ., (2015) "Economic survey of Pakistan", Various Issues.

Government of Pakistan ., (2015) "State Bank of Pakistan", Various Issues.

Greene, W. H., (2003), "*Econometric analysis*", Pearson Education India, 528-548.

Grier, K. B. and Perry, M. J., (2000), "The effects of real and nominal uncertainty on inflation and output growth: some GARCH-M evidence", *Journal of Applied Econometrics*, 15(1):45-58.

Grier, R. and Grier, K. B., (2006), "On the real effects of inflation and inflation uncertainty in Mexico", *Journal of Development Economics*, *80*(2):478-500.

Gul, A. and Zaman, K. and Khan, M. and Ahmad, M., (2012), "Measuring unemployment costs on socio economic life of urban Pakistan", *J. Am. Sci*, *8*(5):703-714.

Haider, A. and ud Din, M. and Ghani, E., (2011), "Consequences of political instability, governance and bureaucratic corruption on inflation and growth: The case of Pakistan", *The Pakistan Development Review*: 773-807.

Hartman, R., (1972), "The effects of price and cost uncertainty on investment", *Journal of economic theory*, *5*(2):258-266.

Hasan, M. A. and Khan, A. H., (1988), "Is there a Phillips Curve in Pakistan?[with Comments]", *The Pakistan Development Review*, 839-851.

Husain, I., (2004, October), "Pakistan's economic progress since 2000: False dawn or promising start?", In *A Paper presented at a Seminar at the Paul H. Nitze School of Advanced and International Studies (SAIS), Johns Hopkins University, Washington, DC, October* (Vol. 6).

Hussain, A., (2012), "A PERSPECTIVE ON PAKISTAN'S ECONOMIC HISTORY: GROWTH, ECONOMIC STRUCTURE AND GOVERNANCE".

Inam, M. and Khan, S., (2008), "Pakistan's Taxation System: A Critical Appraisal", *Journal of Managerial Sciences, 2 (1)*:97-127.

Institute of Developing Economies, (1994) *"The study on japanese cooperation in industrial policy for developing economies: Pakistan", 271-2.*

Iqbal, Z. and Rehman, Q. N., (1995), "Constraints to the Economic Growth of Pakistan: A Three-gap Approach", *The Pakistan development review*, 1119-1133.

Istrefi, K. and Piloiu, A., (2014), "Economic Policy Uncertainty and Inflation Expectations".

Jones, B. F. and Olken, B. A., (2004), "Do Leaders Matter National Leadership and Growth since World War II", *Quarterly Journal of Economics*.

Jong-A-Pin, R., (2009), "On the measurement of political instability and its impact on economic growth", *European Journal of Political Economy*, 25(1):15-29.

Julio, B. and Yook, Y. (2012), "Political uncertainty and corporate investment cycles", *The Journal of Finance*, *67*(1):45-83.

Kalim, R., (2003), "Population and unemployment: A dilemma to resolve", *The IUP Journal of Applied Economics*, *2*(3):7-15.

Kemal, M. A., (2006), "Is inflation in Pakistan a monetary phenomenon?", *The Pakistan Development Review*, 213-220.

Kenyon, T. and Naoi. M., (2006). , "Policy Uncertainty in Hybrid Regimes–Evidence from Firm Level Surveys", Paper Prepared for a Meeting of the Center for Globalization and Governance, *Princeton University*, November 2006.

Khan, S. U. and Saqib, O. F., (2011), "Political instability and inflation in Pakistan", *Journal of Asian economics*, 22(6):540-549.

Kormendi, R. C. and Meguire, P. G., (1985), "Macroeconomic determinants of growth: cross-country evidence", *Journal of Monetary economics*, 16(2):141-163.

Le, T. M. and Moreno-Dodson, B. and Bayraktar, N., (2012), "Tax capacity and tax effort: extended cross-country analysis from 1994 to 2009", *World Bank Policy Research Working Paper*, (6252).

Leduc, S. and Liu, Z., (2012), "Uncertainty, unemployment, and inflation", *FRBSF Economic Letter*, 28.

Lensink, R. and Bo, H. and Sterken, E., (1999), "*Does uncertainty affect economic growth?: an empirical analysis*" (No. 99E23), University of Groningen, Research Institute SOM (Systems, Organisations and Management).

Levi, M., (1989), "*Of rule and revenue*", Univ of California Press.

Loayza, N. V. and Raddatz, C., (2007), "The structural determinants of external vulnerability", *The World Bank Economic Review*, *21*(3):359-387.

Lucas Jr, R. E. and Prescott, E. C., (1971), "Investment under uncertainty", *Econometrica: Journal of the Econometric Society*, 659-681.

Lucifora, C. and Moriconi, S., (2012), "Political instability and labor market institutions", *IZA Discussion paper* No.6457.

Mahoney, J. and Thelen, K., (2010), "A theory of gradual institutional change", *Explaining institutional change: Ambiguity, agency, and power*, 1-37.

McCartney, M., (2011), "Pakistan, growth, dependency, and crisis", *The Lahore Journal of Economics*, *16*:71-94.

Mohey-ud-din, G., (2005), "Impact of foreign aid on economic development in Pakistan [1960-2002]".

Mullineaux, D. J., (1980), "Unemployment, industrial production, and inflation uncertainty in the United States", *The Review of Economics and Statistics*, 163-169.

Mutascu, M., (2011), "Taxation and democracy", *Journal of Economic Policy Reform*, *14*(4): 343-348.

O'Donnell, G. A., (1996), "Illusions about consolidation", *Journal of democracy*, *7*(2):34-51.

Olson, M., (1991), "Autocracy, democracy, and prosperity. *Strategy and choice*", *131*(157): 131-57.

Organski, A.F.K. and Kugler, J., (1980), "The War Ledger", *University of Chicago Press*, Chicago, IL.

Paldam, M., (1987), "Inflation and political instability in eight Latin American countries 1946-83", *Public Choice*, *52*(2):143-168.

Parmar, V. and Azam, S., (2006)," A Comparative Analysis of Economic Performance in Two Eras: Democratic Era (FY 89-FY99) & Military Rule (FY00-FY05)", *Journal of Independent Studies and Research (JISR)*, *4*(2):18-25.

Pasha, A. G., (2010), "Can Pakistan get out of the low tax-to-GDP trap".

Pasha, H. A. and Hasan, M. A. and Ghaus, A. and Rasheed, A., (1995), "Is the Social Action Programme in Pakistan Financially Sustainable?", *The Pakistan development review*, 34(4):629-647.

Pawlina, G. and Kort, P. M., (2005), "Investment under uncertainty and policy change", *Journal of Economic Dynamics and Control*, *29*(7):1193-1209.

Piancastelli, M., (2001), "Measuring the Tax Effort of Developed and Developing Countries: Cross Country Panel Data Analysis-1985/95".

Pindyck, R. S., (1982), "Adjustment costs, uncertainty, and the behavior of the firm", *The American Economic Review*, 415-427.

Raheem, A. R. and Vishnu, P. and Ahmed, M. Y., (2014), "Comparison of Key Economic Indicators of Pakistani Economy: Democratic Governments (FY89-FY99) with Military Regime (FY00-FY05)", *Research Journal of Recent Sciences, ISSN, 2277*, 2502.

Relative Political Performance Data Set Documentation, version 2.1 (2013).

Rizvi, S. K. A. and Naqvi, B., (2010), "Asymmetric Behavior of Inflation Uncertainty and Friedman-Ball Hypothesis: evidence from Pakistan", *The Lahore Journal of Economics*, 15(2):1-33.

Rodrik, D., (1991), "Policy uncertainty and private investment in developing countries", *Journal of Development Economics*, *36*(2):229-242.

Rosenthal, M., (2014), "Policy instability in a comparative perspective: The context of heresthetic", *Political Studies*, *62*(1):172-196.

Saghir, R. and Khan, A., (2012), "Determinants of public and private investment an empirical study of Pakistan", *International Journal of Business and Social Science*, *3*(4):183-188.

Salman, A. and Nawaz, A, (2014), "Determining Factors of Private Investment: Empirical Study of Pakistan", *Developing Country Studies*, *4*(25).

Schaling, E. and Nolan, C., (1998), "Monetary policy uncertainty and inflation: The role of central bank accountability" *De Economist*, *146*(4):585-602.

Sial, M. H. and Hashmi, M. H. and Anwar, S., (2010), "Role of Investment in the Course of Economic Growth in Pakistan", *World Academy of Science, Engineering and Technology*, *66*: 160-164.

Snider, L. W., (1996), "*Growth, debt, and politics: Economic adjustment and the political performance of developing countries"*, Westview Pr.

Taha, S. M., (2012), "Political instability explains political economy of pakistan: A retrospective analysis". *International Journal of Economics Business and Management Studies*, *1*(2):50-59.

Taylor, J. B., (1981, December), "On the relation between the variability of inflation and the average inflation rate", *In Carnegie-Rochester Conference Series on Public Policy*, 15:57-85, North-Holland.

Thornton, M., (1992), "Adam Przeworski's The State and the Economy under Capitalism".

Viqar, A. and Amjad, R., (1984), "The Management of Pakistan Economy (1947-1982)", Oxford University Press. *Karachi, New York, Delhi*.

Wieland, V., (2002), "Monetary policy and uncertainty about the natural unemployment rate", *Centre for financial studies.*

Wooldridge, J. M., (2001), "Applications of generalized method of moments estimation", *Journal of Economic perspectives*, 87-100.

World Bank, (2015), "World Development Indicator", The Washington DC.

Zaidi, S. A., (2008), "*The Political Economy of Military Rule in Pakistan: The Musharraf Regime"*, Institute of South Asian Studies.

Zaman, K. and Khan, M. M. and Ahmad, M. and Ikram, W., (2011), "Inflation, Unemployment and the NAIRU in Pakistan (1975-2009)", *International Journal of Economics and Finance*, *3*(1):p245.