DETERMINANTS AND CONSEQUENCES OF CAPITAL FLIGHT IN PAKISTAN

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DEDICATION

I would like to dedicate my success to my family especially to my parents for their support through my thick and thin situations and for putting their faith and trust in me. Also to my teacher's Dr. Karim khan and Dr. Hafsa Hina, who have helped me in time of need which were helpful for making this research work. I really appreciate their support and guidance.

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"In the name of Allah, the Most Gracious, the Most Merciful"

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"The world will not be destroyed by those who do evil, But by those who watch them without doing anything"

Albert Einstein

ALINA FAZAL

LIST OF TABLES

TABLE OF CONTENTS

Table 1. Abbreviation list

Variable List	**Abbreviation**
Latin American Financial crisis	LAF
Latin American countries	LAC
Asian financial crisis	AFC
Argentina economic crisis	AEC
Economic freedom of the world	EFW
World bank	WB
International Monetary Fund	IMF
Commonwealth of Independent States	CIS
First half of the fiscal year	H1
Capital Flight	KF
Interest rate	Inte
External debt	ExD
Corruption	Corrp
Exchange rate	ER
Political Stability	Polstab
Reserves	Rz
Inflation rate	Inf
Net Foreign Direct Investment	FD

DETERMINANTS AND CONSEQUENCES OF CAPITAL FLIGHT IN PAKISTAN

ABSTRACT

Capital flight has been one of the major issues during the era of 70's and 80's, yet' highly ignored. Thus' ripple effect cause destructive, malign and harmful outcome that additionally worsened the Pakistan's economic growth (Group, 2000). The rationale behind doing this research is to find determinants of capital flight and also, to check whether capital flight has some influential impact on economic growth, investment and debt servicing for Pakistan or not? The data set has been taken from 1980 to 2017 through ARDL and Bounds test. Firstly, the findings state that the past capital outflows, external debt, weak institutions, economic growth, inflation, current account balance, interest rate, exchange rate are significant factors for capital flight. Some of them are highly correlated while some are negatively related. Economic growth is negatively associated to capital flight both runs. The investment level has negative association with capital outflows only in the short run. At the end, debt service shows highly insignificant but negative coefficient of capital flight in both runs.

As capital flight is one of the major issues of the developing economies like Pakistan. Steps should be taken to control the illegal or legal movement of capitals as it deteriorates the economic growth of the economy, and once economic growth falls, it becomes more difficult to regain its optimal level. In order to control capital outflows from the economy, the government should try to maintain interest rate, exchange rate, build strong institutions, control inflationary levels and control the debt levels of the economy.

Keywords: Capital flight, Economic growth, Investment, debt servicing and ARDL technique.

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

Capital flight[1] is not a recent phenomenon. It has been observed in the beginning of the Latin American financial crisis of 1980's[2], thus' the situation captured the eyes of Researcher's. Two types of capital outflow[3] exists; one is called normal capital outflow; which focuses on portfolio diversification, related to investment climate and the other is abnormal capital outflow; which is related to currency changing hands (Mcleod, 2002). Dooley (1986) examines that capital flight is not always a phenomenon of secrecy but involve one's willingness to send the capital to the developed countries and the authorities are restrained to take any action because the economies are open and international transactions are legal to make business deals for profit making. Kindle Berger (1987) postulates capital outflow, as the act of illegal shifts of capital from one state to another. It can also be classified as lost money from nation's balance of payment[4]. (Bhagwati et al., 1974; Gulati, 1987) shows that one of the important categories of illegal capital flight is trade mis-invoicing, in which the actual numbers have been changed (e.g. the number for exported goods to be shown less than the imported products) in order to avoid taxes. The economies that depends upon natural resources face highest capital flight. According to classical, the legal tender or the money is the main driving force for capital flight which effects financial institutions.

According to Walter (1987), capital flight is stated as a capital that flees due to portfolio risk adjustment[5] including foreign assets in a country. Capital flight causes to sabotage human development as it indicates low level of spending on public services (Ndikumana and Boyce, 2011). The most serious issue that developing economies mostly face includes; high external debts, high poverty levels, and shortages of foreign exchange. All this represents larger amount of capital flight, which are important for progressing economic growth and in order to reverse uncontrollable

[1] A phenomenon, in which large amount of capital, in terms of manifold money or any mobile asset that can be transferable from developing to developed country illegally or legally be stated as Capital flight.
[2] Joyanna (1985). "Recent Trends in Unemployment and the Labor Force: 10 Countries". Monthly Labor Review (PDF).
[3] Capital outflow consists of legal capital outflow and also illegal capital outflow.
[4] It is comprised of the sum of Import, Export and all net unilateral transfers which includes aid from abroad etc.
[5] Portfolio risk adjustment is a measure that calculate the level of risk an individual would bear to attain specific return.

economic trends (Hermes et al., 2002). It causes to raise the debt burden more frequently as it involves private capital outflow.

During 1980's, Latin American countries[6] (LAC) experienced that, with the rise of foreign borrowing, the foreign lending tends to increase. During 1990's, the concept spread and International Monetary Fund (IMF), World Bank (WB) and other international financial organizations recognized the negative impact which damages the economy as the markets were expanding and capital was mobile. In 1990's, some of Asian and American markets were considered under capital flight which caused the meltdown of Asian Financial Crisis[7] (AFC) due to financial contagion, which was observed in Thailand after 1997. The next enormous capital flight was perceived in 2001 known as Argentine Economic Crisis[8] (AEC). Argentina tried to lower their exchange rate artificially which caused immense pressure on the reserves of the economy and raised external debt. During the end of 20th century, capital flight was tackled from least developed countries to the ones' who had high interest rates or developed countries, e.g. China.

The progressing economies like Pakistan have small amount of capital and reserves. Therefore, they recover the gap by foreign borrowing in order to meet their developmental process. Some studies show that during developmental process, the economies invest their savings into the developed economies at high interest rate when they tend to seek external financing. In which the residents of the state withhold their belongings and invest it in the other developed states because of portfolios, in which they diversify their risks rationally. Thus', this acts as a contemporaneous situation, in which at a time economy seeks investment in foreign markets for higher reward and borrowing to cover their internal deficit. (Dornbusch, 1984; Cuddington, 1985) emphasize that most severe and economic collapse are mainly caused by illicit financial flows or capital flight.

In any economy, possession of a capital or an organization is not a crime if it is acquired legally but if not, then is considered as treacherous and untrustworthy to the state and should be charged against breaking the rules. Group[9] (2012) examines that Pakistan has severe issues like

[6] Latin American countries especially U.S and Japan who recovered from recession early than Mexico, Brazil and Argentina etc.

[7] Asian Financial crisis started in 1997, in which the currency lost its worth and effects exchange markets and imports of the state and spread in other Asian countries.

[8] (Rebecca,2018) Argentina's Economic Crisis, Congressional Research service.

[9] World Development indicator, 2012.

their fights with terrorists, political issues and the major one is referred as capital outflow. During 2000's, Pakistan was indebted and was politically unstable. It had weak institutions, and terrorist attacks caused the capital outflow from Pakistan to developed countries like UAE, London and Europe. As a result, investors lost their confidence, investment level fell and overvaluation of exchange rate worsened the economy.

Panama Papers captured the eyes of the world in which around 2000 offshore accounts were claimed to be Pakistani businessmen accounts, which somehow showed that the illicit financial flows can be tackled in Pakistan too[10] (The Express Tribune, 2016). The Pakistan's law have allowed that a person can legally carried out the amount that does not exceed $ 10,000 (BBC, 2015). Although, there are off-shore accounts which are kept illegally, and their secrecy is not disclosed to another person or state, the benefit of offshore accounts is that the owner does not have to pay any taxes on behalf of any property and can earn profit. According to the Economic Freedom of the World (EFW)[11], Pakistan scores lowest with the rest of their competing economies; i.e. only "0.77 out of 10" in capital controls[12], and "0 out of 10" to freedom to own a foreign account. Sarmad (1993) explored that Pakistan's economy during 1970's and 80's experienced high capital outflow and showed strong negative impact on country's economy, which increased the cost for capital formation and raised indebtedness. Dawn (2013) revealed that around 25 million $ flee from Pakistan as capital flight on daily basis. During 2015, Pakistan's growth recovery was slow as compared to its neighboring South Asian economies but, during H1 of fiscal year, it showed greater potential in exchange rate reserves, rise in consumption, and increase in remittances and fall in inflation level. It was expected that the other half of FY16[13] would raise growth for the economy (Group, 2016).

Capital flight affects negatively the economic growth and development because the transferred money does not contribute to the economy nor to the developmental process. The research shows that due to movement of capital flight from developing to advanced countries, it exerts positive impact on exchange rate and on growth of the economy of nigeria. The findings were captured by using OLS methodology (Saheed et al., 2012). Ndikumana (2000) investigated adverse impact of capital flight on investment levels thus effects the economy severely, as a result

[10] Ali Salman (25 April, 2016), Capital Flight from Pakistan a regular occurrence, The Express Tribune.
[11] Annual Report designed to measure ranking of nations according to their Economic freedom and supportive policies.
[12] Capital controls represents regulatory measures to limit foreign capital into and out of the home economy.
[13] Fiscal year of 2016 and H1 denotes First half.

employment level, output level and savings reduces and also discourage foreign investors. Hermes and Lensink (1992) investigated the negative impact of capital outflow for the case study of African economies by using simulation methodology and found out that it effects the investment negatively and restricts investment level for home which further worsens the economy and increases poverty rate for African countries. Uguru (2016) observed that whenever capital flight increases by one unit it causes a decline in tax revenues by 2 percent. Beja (2007) explored that in developing economies foreign borrowing and inflows of capital (for a short term) causes capital outflow. When economy depends too much on foreign borrowing then capital flow out more and the case is same, when country tries to repay the foreign debt as debt servicing (Saxena & Shanker, 2016).

In Pakistan, capital flight is one of the main concerns for planners and policy-makers. It is because any abnormal capital flight (i.e. when the position of foreign exchange reserves is unstable) causes to reduce the investment level as we do not have any alternative resources in the economy (Siddique and Kemal, 2001), thus' effects employment level and also increases the external debt. This all causes a serious concern for national welfare loss and also effects the residents of the state.

1.2. BASIC CONCEPT OF CAPITAL FLIGHT

The main concept of capital flight has been discussed, which will provide the consequences and reasons for capital flight. Capital flight can be defined in many ways (Harrigan et al., 2007). (World Bank, 1985; Cline, 1987; Lessard and Williamson, 1987; Cuddington and Dooley, 1986) find it difficult to separate normal and abnormal capital outflow. Some of the economists state that some capital flows out in the form of foreign direct investment from developed economies, while same capital flight is assumed by home resident of developing economy (Ajayi, 1995). African countries faced reallocation and equity issues in which the political and economically rich citizens took the benefit of safe havens and accumulated their wealth through illegal means. This caused a raise in poverty level in the country (Zucman, 2013). (Andersen et al., 2012; Hebous and Lipatov, 2013) finds out the relation between corruption with tax heavens for the study of African countries and overseas, furthermore stated that the controlling authorities allow confidential ways for sanctuary to the illegal money or asset. Torvik (2009) explored that tax heavens lead to weak institutions and

corruption. Also, the illegal money through tax evasion causes a negative impact for the taxpayer (Fjeldstad et al., 2012).

Feldstein and Horioka (1980) shows that macroeconomic uncertainty like political instability, higher taxes, corruption and weak institutions are the reason behind capital flight. The lower domestic resource demand leads to low public revenue generation and hence causes a downfall in total investment of a nation i.e. public investment levels. Capital flight is a major shortfall for investment and reduces the growth of the country (Hermes and Lensink, 1992). Some claim that the capital that has been held domestically faces financial risk due to currency depreciation, devaluation, inflation, and financial instability (Dornbusch, 1985), or risks due to uncertainty of future tax policy, notably potential increases in taxation, or poor economic governance especially undermining debtor rights (Eaton, 1987). This line of argument suggests that the risk-adjusted rates of returns to investment would be the main determinant factor behind capital flight.

Capital Flight is caused by many factors, like political instability, external debt, weak institutions, climate uncertainties i.e. inflation rates, foreign direct investment, aid from abroad, portfolio risk, exchange rate over-valuation (i.e. devaluation of domestic currency) and corruption.

1.3.OBJECTIVE OF STUDY

The aim of the research is

1. To see the determinants of capital flight in Pakistan.
2. To see the impact of capital flight on Economic growth, Investment and Debt servicing for the case study of Pakistan.

The following objectives would be achieved by applying ARDL Cointegration technique as the model is based on their lag term. The unit root test will be used to check non-stationarity in the model. Furthermore, bound test will be applied to check short run and long run relation among dependent and independent variables.

1.4. CONTRIBUTION AND ORGANIZATION

For Pakistan, Capital flight is a major issue and causes rippled effects, not only affecting the growth but also the investment levels of the economy. Pakistan being the developing economy needs foreign debts to fulfill their developmental process but due to weak institutions, inflationary levels and exchange rate fluctuations the investors repatriate the investment to other countries and the resident of the state send their wealth legally or illegally abroad. Few years back, panama papers has captured the eyes of the world. As per my knowledge, it would be an eccentric study as it is devoted to investigate the determinants of capital flight and its impact especially on economic growth, investment level and debt servicing for Pakistan.

The research paper is organized as the following chapters, Chapter 2 is based on the Literature review, Determinants and Consequences of Capital flight, Chapter 3 examines the Methodological section which is based on the transmission mechanisms, Econometric model and the Data which provides the data sources and the estimation techniques, Chapter 4 explains the Results of the estimation techniques and lastly Chapter 5 is based on the Conclusion and Policy recommendation chapter.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

We will explore relevant literature in this area. It will provide association with the consequences and determinants of capital flight for Pakistan. By considering the objectives of the research, the chapter is divided into three sections, firstly', the determinants of capital flight, secondly', the macroeconomic consequences of capital flight and lastly', conclusion of the chapter.

2.2. DETERMINATS OF CAPITAL FLIGHT

Hypothetical and empirical studies associated with capital flight, the first exposition depends on portfolio choices. The owner's decision dependency has been based on the risk and returns, the gain or loss that would be endured by investor. Furthermore, the explanation proclaims the wrong means to earn and illegitimate flight of asset needs to be hidden from a legal trial. So, the owner that play false would prefer less or negative amount for their belongings because the person wants to evade from prosecution for the sake of tax havens. The next empirical clarification (Collier et al., 2001; Collier et al., 2004) is also in favor of portfolio choice theory. (Ndikumana and Boyce, 2003; Fatehi, 1994) shows significant relation among capital flight and portfolio choice. While, Pastor (1990) investigates that inflation rates, overvaluation of exchange rate and difference among U.S domestic and financial capital yield leads to capital flight. Moreover, (Pastor, 1990; Hermes and Lensink, 2000; Vos, 1992; Ize and Ortis, 1987; Hermes and Lensink, 1992; Eaton, 1987) indicates that unpredictable increase in tax level causes a portfolio choice among residents and hence leads to capital flight (KF). It can also be caused due to weak institutions, overvaluation, high inflation levels and high foreign debts (Ajayi, 1992).

In a world where an individual have full information and low transportation cost, they tend to invest where returns are higher than risk. But Pastor (1990) settled a question that if the country has negative returns then why would a foreign investor forward their loans or capital there? (Khan and Haque, 1985; Cuddington, 1986) ends up with the explanation that between domestic and abroad asset there exist different risks of expropriation. The home agent faces different risks, the risk imposed by government to expropriate the asset while, foreign investor faces no risk by domestic authorities or foreign institutions. Different taxes for domestic and on abroad assets make

it up for asymmetric risks and so the home investor send their assets abroad to earn profit and subsequently, the foreigner agent release their loans. Hebous and Lipatov (2013) builds a model which showed that tax heavens compel income earning enterprise in a corrupted country. Suborn and revenues of corrupted official were assured to be kept hidden in the tax heavens. Increase in power and tax heavens leads to capital flight (Pastor, 1989), corruptions, smuggling and illegal exports leads the capital flight for the case study of Russia (Hermes and Lensink, 1992).

Some Empirical findings disclose a different relation among debt stock with capital flight as it has with external loan flows. The interpretation states that debt stock refers to reliability and expectation related to greater foreign revenues which leads to reduce capital flight. Collier et al., (2001) analyzed cross sectional data and found positive linkage between stocks of debt with capital flight. Foreign borrowing and capital outflow act as debt fueled or a twin problem (Boyce and Ndikumana, 2001; Ajayi, 1997; Ndikumana and Boyce, 2003). Debt fueled capital flight encourages to take more loans from abroad in order to stabilize the economy while in actual, the investors loses their confidence and reduces investment levels, exacerbate macroeconomic situation. In order to lessen this situation, more debt is required and leads to debt motivation (Boyce, 1992). While the case study of Philippines presents no notable relation between stock of debt and capital flight (Vos, 1992). Ndikumana and Boyce (1998) stated a fact that Mobutu (late Congo president) recognized that external debt was fled as private capital outflow from the country. Boyce and Ndikumana (2000) investigated 25 SSA countries and observed 193 billion dollar capital flight for the period of 1970-1996, while external debt was recorded as 178 billion dollar for that period. The findings show Africa as the creditor as compared to its neighboring countries. Seven MENA countries as a sample have been used from the period of 1981 to 2008 in order to investigate the factors of capital flight. Ordinary least square, Fixed and random effect model and SUR has been used as econometric techniques and revealed that capital flight has been caused by its own lag term i.e. lag of capital flight, foreign debt, gross domestic product of the state, Foreign direct investment (FD) and it also incorporates some of the unpredictability's (Nedal, 2012).

Political economy has a role in the capital flight (Henry, 2013; Lensink et al., 1998; Henry 1986[14]; Fedderke and Liu, 1999; Lensink et al., 2000), as the existing government wants to take

[14] Findings depict that the loans sometime may not leave the country but can be reallocated in other country banks in the same country.

foreign loans in order to overcome the present issues and have no intentions for the future generations (Alesina and Tabellini, 1989). Weak institutions play a vital role in capital flight (Le and Rishi, 2006; Cerra et. al., 2008). Empirical studies based on cross section analysis by keeping other factors ceteris paribus, finds out that political uncertainty and battles lead to higher level of capital flight. Whereas, political liberalization and freedom leads to low level of capital outflow (Hermes and lensik, 2000; Murinde et al., 2000).

2.3. MACROECONOMIC CONSEQUENCES OF CAPITAL FLIGHT (KF)

2.3.1. Economic Growth

According to Beja (2007) capital flight decelerate the economic growth and development of the country and causes underdevelopment. By using Johannsen co-integration test and ECM, there exists a long-run relation between capital flight and poverty for Nigeria. The data was used from 1986 to 2014, discomfort index (poverty) was used as a proxy variable. While two other variables also have a positive correlation with poverty like real GDP and literacy rate (Onyele and Nwokocha, 2016). Brada et al., (2011) investigated seven CIS countries in order to check capital flight form the time span of 1995 to 2005. Residual method from the world's bank states that short run regulation policies reduce capital flight (KF) while, financial liberalization enhances the chances for capital flight for the long run period. (Nazir et al., 2012; Tabassum et al., 2017; Alper, 2001)[15] analyzed capital flight worsens the economic growth.

Adaramola and Obalade (2013) studied the effects between capital flight and economic growth for Nigeria from the time span of 1981 to 2010 by using OLS and Cointegration technique and finds adverse impact in short run while a positive impact for long run. FMOLS known as Fully Modified Least square used from period 1970 to 2013 and the result shows significant and inverse relationship between capital flight and economic development for Cameroon city. While three more variables were to be found that has relation with economic development. External debt and exports have negative while, real interest rate has positive correlation with economic development (Wujung and Mbella, 2016). The research was focused on the West African states like Nigeria and Ghana. Secondary data for the year 1990-2014 has been used and the estimate shows that when

[15] (Nazir et al., 2012) analyzed the study for Latin America, (Alper, 2001) studied for Nigeria, while (Tabassum et al., 2017) investigated for the case study of Pakistan and captured other variables like analyzed that political instability, labor immigration, low employment level also effects growth negatively.

capital flight increases, it causes to reduce economic growth for Nigeria and has a positive link for Ghana. While Nigeria is being more effected by capital outflows than Ghana (Owusu, 2016). Makochekanwa (2007) finds that economic growth and capital flight has an adverse correlation.

Econometric approach has been used to check results for the case study of Nigeria. The trade balance, capital flight, real GDP and difference of interest rate[16] foreign and domestic shows significant results while, exchange rate of Nigeria and political climate for domestic country is insignificant. Durbin Watson test, Endogeneity were not found in the data set for the period 1970 to 2010 (Onodugo et al., 2014). The study explore the results for the countries like Zambia, Nigeria and South Africa. Time series data was taken from the year 1970 to 2010. By using granger causality test, the result shows positive correlation between exchange rate dynamics and KF movements for these countries. The 40 year time span has been used. Furthermore, Johannsen co-integration test was used and it depicts that the countries like South Africa and Nigeria has exchange rate appreciation in the long run while for Zambia, the exchange rate (ER) depreciates (Ellyne and Mbewe, 2015).

2.3.2. Investment

Unrecorded agreements in Balance of payment provides incomplete association of Pakistan with rest of the world's economic and financial institutions. The paper shows accession of private capital belongings that are held by overseas Pakistani's. Three ways has been used to estimate illegal private capital flows. One is called World's Bank inclusive measure which provides capital flow that causes to reduce potential growth. Second one is called Exclusive measure also known as Morgan Gurantee Estimate; it shows positive association of private capital outflow of country with External debt. The last Estimate is called Hot Money by Cuddington which actually fails to show negative relation of capital flows during 70's. But during late 80's, a rising trend has been captured in private capital flows considering rising external debt, reducing interest rate and low level of exchange rate (Sarmad, 1993). The capital flight (KF) is caused due to political event in the economy and investor loses its confidence in economy's growth hence shifts all his resources abroad. The residual method shows negative relation between capital flight and net foreign direct investment. It means that when the illicit financial flows increase by one unit, the net foreign direct investment (FD) reduces (Ahmad and Sahto, 2015).

[16] Interest rate differential refers to two interest rate among two states, the investors lend their capital to the country where they find higher interest rates to attain profit margins.

Dynamic panel methodology has been used for 22 originating market economies. The data set from the year 1975 to 2000 have been taken and found that capital flight has adverse effect on private investment but has no impact on public investment and financial liberalization has also found to be insignificant (Yalta, 2010). It has been observed that investment is affected by interest rate, capital flight and exchange rate dynamics. In order to check the results for Nigerian economy, data from 1970 to 2006 has been taken. According to augmented dickey fuller test, the data was checked at level and shows stationary time series. Engle granger co-integration test was used to check the long run relationship and revealed that when capital flight has increased by one unit the investment level also increases but has trivial impact. Their also exists structural uncertainty, captured by error correction model which shows correlation among variables (Adesoye et al., 2012).

Pakistan is facing a massive capital flight according to policy makers due to private capital that flows out of the country and the citizens hold more of the foreign assets which causes to raise the debt of the state. The data is taken in-between 1972 to 2013 using trade mis-invoicing and the $30 billion of the capital flight were reversed back to Pakistan. The immense capital flight from a nation cause welfare loss. Two methods were used to measure the illegal capital flows from nation i.e. direct or indirect method. Direct method was obtained through balance of payment and depicts short term capital flight (KF) phenomenon which shows that it was caused by investment risks. While, indirect measure has been taken from Morgan and world's bank residual method and shows a raise in external debt, net foreign direct investment (FD), reserves from abroad and causes to lessen the current account level. The study further capture the idea that in Pakistan, nonpayment taxes could be the main reason for capital flight (Mahmood, 2013).

The strong regulatory authorities for political stability and corruption have seen to control capital flight in sub-Sahara Africa. Panel data was used from a time span of 2005 till 2014. The estimate shows that capital flight tends to reduce whenever political stability and proper measurements have been taken for corruption. It further shows that CPIA for financial sectors, trade and exchange rates were used to lessen illegitimate capital flight from the economy which causes foreign direct investment to rise and somehow effects the price level to grow (Orkoh et al., 2006). Boyce and Ndikumana (2001) studied sample of 30 sub African countries and stated that capital flight has negative impacts on the government revenue, as the total quantity of the capital

reduces because investment level decreases due to private assets re-exportation. It causes huge tax burden on the underprivileged citizens of the country and reduces welfare of that society.

There are different reasons behind the concept of capital outflow occurrence in developing countries having fewer capital resources. One of them is stated by Ajayi (1997) that capital flight effects investment negatively and in return investment effects the growth of the country. Further explained by Schneider (2003) and enquired that the home country faces an increase in the level of foreign debt because the country borrow more to cover the gap. Secondly', a negative influence on the foreign investors as they invest lower than before. Thirdly', capital flight increases the burden on the poor citizens of developing economy and abrade tax base. Lastly', political economy has a huge impact, as the government would like to hold more of the foreign assets to meet the welfare of the society in short run and leaves the rest to the other parties and on the next generation (Alesina and Tabellini, 1989).

2.3.3. Foreign Debt

Two staged least square (2SLS) have been used and investigated a positive relation for foreign debt and capital flows for the case study of India. The loans were borrowed in order to enhance growth level but due to high indebtedness, it caused a raise in debt servicing and economic calamity which leads to capital flight (Saxena and Shanker, 2016). Developing countries usually face shortage of assets in order to maintain the shortage, they borrow from developed countries which raises the saving level of the domestic state. The decade of 1970's to 80's shows that natives highly invest in foreign capital. Due to capital flight, it worsen the home economy as the residents of the state invest abroad to gain higher returns so, new assets and capital formation reduces. It also has negative impact on reserves of the state because due to tax evasion, it causes to raise tax burden on the economy and worsens the economic growth. All this happens because of the portfolio theory concept as the residents want to minimize risk and maximize the returns in order to expand profit (Shimwela, 2002). The exchange rate was taken as dependent variable and its relation with the independent variables like current account (CA) balance, net foreign direct investment (FD), external reserves, borrowing from foreign states and capital flight has been tested through different tests like UR test, OLS, co-integration and causality tests for case study of Nigeria from year 1940-2014. There exists only one significant and positive relation with exchange rate and foreign borrowing while, the rest of the variables are insignificant (Nelson et al., 2018).

Macro-economic factors and capital flight were analyzed to check the influence on agricultural sector of Nigeria. The time span used for this was from 1970 to the period of 2013. Different econometric measures like Unit root, Cointegration and regression estimates have been used and found that capital flight has extraneous and pessimistic impact on agricultural economy. While, the other factors like political stability has negative and notable linkage, foreign debt has effective and significant relation with agricultural sector, means that whenever foreign debt increases, it raises growth in agricultural sector of Nigeria (Francis and Chukwuemeka, 2014). According to the study, when any country attains external debt from foreign state then around 31 to 40 percent of the capital flight moves back to the nation of origin. Both direct measure (includes hot money3) and indirect measures (include cline and Dooley) have been used and it states that by examining different measures for different countries, the result changes due to their measures taken for capital flight (Kant, 1998).

2.4. CONCLUSION

In the light of the above literature review, it has been investigated that capital outflow is not only harmful for the economy, but also for the domestic residents. The capital flight effects the Exchange rate (ER) and causes overvaluation due to which it causes the deprecation of the currency in post period. Thus, the individual withholds their currencies and lend them abroad due to portfolio choice. It causes to raise the price level (inflation rate), lowers investment level due to environmental uncertainties, and increases the external debt, worsens political stability and raise unemployment level of the society.

So, the impact of capital flight is severe for developing economies, but has not captured much attention especially for Pakistan. Therefore, the research study will try to fill this gap by analyzing the determinants and also the consequences of Capital flight on Economic growth, Investment and Debt servicing of Pakistan through some important variables like external debt, inflation, Taxes, Exchange rate etc.

CHAPTER 3

METHODOLOGY

3.1. INTRODUCTION

The previous literature somewhat provides us the findings of other developing countries like Nigeria, sub-Sahara African countries and on the behalf of their empirical findings, we will proceed for the case study of Pakistan. The aim of this section is to build all possible economic models for determinants and consequences of capital flight (KF) for Pakistan.

Firstly,' we discuss the theoretical framework for our analysis, secondly,' we specify our models and at last' we define bunch of control variables used in our analysis.

3.2. THEORETICAL FRAME WORK

Nowadays, capital flight is one of the sound topics in Pakistan. The research is based on four different theories that are; debt driven capital outflows, portfolio choice theory, investment diversion theory and austerity theory. The rationale of the study is to build theoretical models based on all these theories separately, that will try to cover all the possible concepts and links which associates with the idea of capital outflows from Pakistan to developed countries legally or illegally, which causes a distress situation for the economy thus' affecting economic growth, investment levels and debt services.

3.2.1. TRANSMISSION MECHANISM FOR DETERMINANTS

Various studies show different transmission mechanisms for capital flight. (Alesina and Tabellini, 1989; Ajayi, 1997; Boyce and Ndikumana, 2000; Henry, 1986) explained that capital outflow from a country reduces foreign reserves, in order to fill the gap, the country borrows more which leads to a term known as back to back loans, round tripping phenomenon[17] or debt driven capital[18] flight. Capital flight is promoted by trade mis invoicing observed during 2009 and 2010 (Group, 2012).

[17] It refers to a situation in which one comes back again to its original place, and the situation goes on.

[18] In which residents expect rise in higher tax level due to piles of external debt, thus transfer wealth through legal or illegal ways (Boyce, 1992).

(Mikelsen, 1991; Vos, 1992) studied some empirical findings and provides positive link between existing and past capital outflow. This shows a continuation trend in capital flight phenomenon while, (Cuddington, 1987; Boyce, 1992; Nyoni, 2000) investigated negative or weak correlation.

According to Boyce and Ndikumana (2000), the important factor for capital flight (KF) is home economic conditions (like strategic tools e.g. economic shortage and variation in foreign reserves). Increase in expected inflation level causes to reduce the actual price of the asset by generating capital outflow from the country. Empirical studies show high correlation among expected inflation rates with capital outflow (Fischer, 1993). Causality relation occurs among inflation rate and capital flight. Empirical studies indicate that, the less the economic growth, the greater the capital outflows it faces. Dornbusch (1987) states that it is hard to find between egg and the chicken. Cointegration technique shows that inflation levels and exchange rates plays main role in order to cause capital flight (Kolapo and Oke, 2012) and also states a significant relation between foreign direct investment (FDI) and gross domestic product (GDP). Cuddington (1986) used portfolio adjustment method and state reasons of capital flight like exchange rate overvaluation (Ngeno, 1994), past capital outflows and spending of public loans, increases the capital outflows from the economy.

3.2.2. TRANSMISSION MECHANISM FOR CONSEQUENCES

According to the Portfolio choice, the main ruling bodies make portfolio of choices and send the lump sum money abroad illegally, in order to gain more profits as the economy is not stable and has macroeconomic instability. This causes a negative impact on economy by reducing investment, exchange rate, foreign reserves and employment level while' raises foreign debt of the country. Group (2012) observed that during 2009 to 2010, the trade mis invoicing had large influence on the outflows of capital due to which the investment level reduced. The residents lost their jobs and the poverty level increased which in turn, affected the government stability. Greater flight of capital leads to a downfall in country's economic institution through transferring of tax base or corruption. The residents expect a rise in tax levels hence, transfers their assets abroad. Thus, this reduces the domestic asset demand and lowers domestic investment levels (Feldstein and Horioka, 1980). Capital flight has a positive impact on the investment level and also on the economic growth (Saheed and Ayodeji, 2012). Adaramola and Obalade (2013) investigates a significant and positive in both runs among capital flight and economic growth.

Theory is related to investment diversion theory (IDT), in which investors transfer their wealth or capital in a well stabled economy to gain higher profit margins illegally. Lensink et al., (1998) states that political enslavement, government laws or strategies that are designed to repress some portion of population turns into devastative outcomes. The calamities thus' affect the investment climate of the economy. Political uncertainty influences negative impacts on trading environment for the investors. In this way, this reduces the assets volume and also wealth of nation (Lensink et al., 1998). Unpredictability and variability faced by citizen's causes to lend their assets abroad. Expectations regarding higher taxes ultimately reduce the true value of the assets (Alesina and Tabellini, 1989; Lensink et al., 2000).

The Austerity theory[19] focuses on the residents of a country who bears external debt, in which the state puts a large amount of taxes to collect revenues and debt service (i.e. payback their loans) as a result economy becomes worse off. The more capital flows[20] out of the country, the more external debt it faces (Ajayi, 1992), and thus' the state raises their tax levels to pay their debt service. Engle granger causality test shows positive long run but insignificant relation among capital outflows and level of investment and also find structural uncertainty among different variables (Adesoye et al., 2012). Boyce (1992) analyzed that external borrowing leads to capital flight (KF) which increases the possibility of bankruptcy, deteriorating the economic situation and reduces the domestic investment level of the economy. There exists a negative relation between aid and capital flight (KF) (Collier et al., 2004). When a country gains more foreign loan from abroad, more capital outflows is transferred, that causes to fuel capital flight as it has a reinforcing effect. It causes to lower the growth of the country and country asks for more foreign debt in order to fill the gap thus called debt overhang cycle. (Boyce and Ndikumana, 2000; Ajayi, 1997) observe significant relation between external borrowing and capital outflow.

Due to the imposition of large amount of taxes on assets, the investor lose confidence as the resources start depleting in the countries, which in turn effects the economy evolution and expansion. The investor relocates his withholdings abroad which causes a negative impact on economic growth because the wealth of the nation shifts to other countries and affects the exchange rate and deteriorates the currency. The loss is not only endured by the economy but also the burden

[19] In 1989, Pastor states the Austerity theory. It follows fiscal contractionary policy in which government expenditures/ spending's are cut and taxes are being raised, or sometimes both, in order to tackle the inflationary pressure.

[20] Ajayi (1992) provides the reasons of capital outflows. These are weak institution, overvaluation, high inflation levels and high foreign debts.

lays on the residents of the state, as their belongings loss their true value and leads to effect purchasing power. Thus, value of imported good rises and affects the imported medicine rates hence domestic resident suffers from that too.

3.3. SPECIFICATION OF ECONOMETRIC MODEL

We have been working on the idea of Sarmad (1993), as it provides us the evidence of capital flight (KF) in Pakistan and thus, we tried to investiagte the reasons behind KF for Pakistan.

The mathematical model represents determinants of capital flight[21] (KF), the equation **(1)** follows Debt driven capital flight[22] theory, in which residents are encouraged to transfer the assets and wealth abroad due to higher foreign debt, as they make choices among risk and returns. So the proposed equation can be as:

$$KF = \beta_0 + \beta_1 (ExD) + \beta_2 (Ƥ) + \mathcal{E}t \qquad \dots eq. (1).$$

Where

Y = KF = Ln of Capital Flight

X1= ExD = Ln of External debt

X2 = Ƥ = captures the rest of the variables

"L" represents natural log terms.

Now, the model for consequences of KF is as follows:

The equation **(2)** for Economic growth follows Portfolio choice theory, in which the residents or the main ruling bodies of the state make their own choices regarding their wealth and assets and send their assets abroad hence, affects the economic growth negatively.

$$EcoGr = \alpha_0 - \alpha_1 (KF) + \alpha_2 X + \mu t \qquad \dots eq. (2)$$

Where

EcoGr = Ln of Economic growth

KF = Ln of Capital outflows

[21] The variable for determinants has been based on Ajayi (1992) and Mahmood (2013) findings.

[22] Boyce (1992) proposed that due to higher level of indebtedness, the residents of the state lend their belongings in the foreign markets in order to avoid higher tax level from the government side.

The equation **(3)** for investment is based on Investment diversion theory, in which due to instable environment of the economy in which investors find it difficult and risky to invest thus, transfer all his wealth abroad illegally.

Invest = $\lambda_0 - \lambda_1$ (KF) + λ_2 Y+ μt **… *eq*. (3)**

Where

Invest= Investment level

KF= ln of Capital flight

The Equation **(4)** for Debt servicing is based on the Austerity theory[23], which follows contractionary fiscal policy. The equation is as follows

Debtser = $\delta_0 + \delta_1$ (KF) + δ_2 Z +μt **… *eq*. (4)**

Where

Debtser = Debt servicing

LKF = Ln of Capital flight and

P, X, Y and Z = includes all other control variables[24].

3.4. HYPOTHESIS TESTING

This study will test the following hypotheses. Firstly, the hypothesis will be tested for determinants of capital flight. The hypothesis construction is as follows:

H_{O1}: Capital flight is affected by the mentioned determinants.

H_{A1}: Capital flight is not affected by the mentioned determinants.

Secondly, the hypothesis will be tested for the impact of Capital flight on Macroeconomic indicators like Economic growth, Investment levels and Debt servicing. For that, the construction is as follows:

H_{O2}: Capital flight does not affect the Macroeconomic indicators.

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[23] Pastor (1989) states the Austerity theory. It follows fiscal contractionary policy in which government expenditures/ spending's are cut and taxes are being raised, or sometimes both, in order to tackle the inflationary pressure and full fill the gap of their debt service.

[24] Control variables for P, X, Y and Z are as follows: For P; weak institution, overvaluation of ER, Economic growth, inflation levels, high debts, net FDI, reserves from abroad and taxes. For X; Foreign Direct Investment Government Fixed Capital Formation, Government Expenditure, Trade Openness and Inflation. For y; interest rate, FDI, ER and for Z; taxes, external debt, private debt private sector.

H_{A2}: Capital flight affects Macroeconomic indicators.

3.5. CONSTRUCTION OF VARIABLES

The selection of the variables is according to above mentioned literature. The variables are as follows:

i. Capital Flight (KF)

Data for capital flight (KF) would be obtained by residual Method formed by (World Bank, 1985) and (Morgan Guaranty, 1986). Positive KF refers to the outflow of capital from home country while negative refers to the inflow of capital (reverse capital outflow).

According to World Bank (1985) Residual method, we can find Capital flight as:

KF= Δ Ext debt + FD - (Δ Reserve + CA)

While, current account and Foreign Direct Investment (FD) are in level and **"Δ"** represents change between present and past values.

ii. Economic growth (EcoGr)

Economic growth refers to the economic stability i.e. increase in the production of goods and services in each period. It is denoted as EcoGr and is in annual percentage (%) growth rate of gross domestic product (GDP). Capital flight affects growth inversely (Aizenman et al., 2007; Tabassum et al., 2017). When an economy is decelerated it reduces the production of goods and services and income of the state (Ndiaye, 2014).

iii. Foreign Direct Investment (FD)

Foreign direct investment is the inflows of foreign capitals, assets and investments by foreign investors. It is in current US $. The data has been taken from world development indicator. Ahmad and Sahto (2015) observes an inverse relation between capital flight (KF) and foreign direct investment (FD).

iv. Investment (Inv)

Investment has been stated as Gross fixed capital formation (% of GDP), or gross domestic investment.

It consists of costs on incorporation to the fixed capitals of the state plus the net changes in the number of inventories. The data will be taken from world development index.

v. Reserves (Rz)

Reserves (Rz) assets are foreign assets which are available and is controlled by monetary bodies in order to finance their needs, e.g. golds, foreign currency and SDR's etc. The data is in current US $. Higher the foreign reserves, the more stable currency they have thus reduces the chances of capital outflows.

vi. Current account (CA)

It is taken as the sum of all the exported goods, services, net primary and secondary income. It is in percentage of gross domestic product.

vii. Debt Servicing (Debtser)

Debtser has been taken as the total amount that has to be repaid in currency, goods or in the form of services on long and short time debts and also includes the repayment amount to IMF. Data is available on WDI. Cuddington (1986) provides positive link between external debt and capital flight, meaning that the higher capital outflows will raise the chances of higher debt servicing.

viii. Private debt (Pted)

The loan that is owed to nonresidents (private banks and entities) by the residents of the state, which should be repayable in currencies, good or in services. The maturity is for more than one year. It is denoted by PtED. Data is in current U.S dollars. The main driving forces that motivate capital outflows is both public and private bodies (Ndikumana and Boyce, 2003, 2008 and 2011; Ajayi, 2007; Ndiaye, 2009a and 2011).

ix. Political instability (Polstab)

Polstab refers to Political stability, the range is from - 10 to + 10. The negative 10 point indicates weak political certainty of the economy while, +10 indicates highly democratic society. The data would be extracted from the PolityIV.

x. Institution (Inst)

It refers to Strong institutional bodies which conduct rule of laws, provides check and balances etc. The range for institutions lies from - 10 to + 10. The negative 10 point explains weak institutional bodies while, +10 indicates strong institutions. It is represented by Inst. Data has been taken from PolityIV.

xi. Tax (TX)

The total amount (in direct taxes) enforced on products, production sector and on consumers' by the government for public welfare, and excludes fine and penalties etc. It is in annual percentage (%) of GDP. When the amount of taxes increases, it leads to portfolio choice theory, hence capital outflows increases.

xii. External Debt (ExD)

External debt (ExD), loan used for one or more than one year and is % of exports, services and income from primary level, used from world development indicator (debt statistics). It helps in formation of new capital and helps to reduce poverty levels (Shah et al., 2005). Causal relation has been found among capital flight (KF) and foreign loans (Henry, 1986) i.e. one causes the other or vice versa, but sometimes the loans might not leave the state, it may reallocate in different banks in the same country. Cuddington (1986) finds external debt as a prime factor of capital flight for third world countries[25].

xiii. Interest rate (Inte)

It is in percentage (%) of exports of goods, services and primary income. It is the total amount of payments that is being paid in currency, goods or services on long and short term debt and the charge amount to IMF. It is represented by Inte. Interest rate differential plays a crucial role in the cause of capital flight (Ayadi, 2018).

xiv. Exchange rate (ER)

It represents the relative prices of the product with other countries product price. It can be taken as a measure of Capital flight (KF) because exchange rate (ER) depreciation reduces currencies worth and thus, lowers purchasing power. Due to currency depreciation the investor invests their saving in the country having higher rate of returns and enhances the chances of KF (Saheed and Ayodeji, 2012; Onoja, 2015; Uguru et al., 2014). Exchange rate is decided by government authorities of a state in a legal exchange market. It is denoted by ER.

xv. Inflation level (Inf)

Inf is a measure of GDP deflator, which shows change of price rate in the state as a whole. Ghosph and Pilliphs (1998) stated that there exists a positive link between higher inflation rates with growth. While, negative relation between low inflation rate and growth. (Saheed and Ayodeji,

[25] At the time of cold war between First world (United States) and Second world (Soviet Union), the developing nations that did not take any side were called the Third world countries.

2012; Onoja, 2015) explored that higher levels of exchange rate, might be due to capital outflows, that lowers the true value of assets thus purchasing power parity (PPP) declines which ultimately increases higher inflationary pressure in the economy.

xvi. Government Expenditure (GovExp)

It includes all the expenditures on current bases by government in order to purchase goods and services, plus it also adds the expenditure that are used on defense and security purposes of the nation but keep out military expenditure of government. It is denoted by GovExp and in % of GDP.

xvii. Tradeopeness (TO)

It is taken as the sum of countries Imports with countries exports present as the percentage of GDP. It is denoted by TO.

3.6. DATA DESCRIPTION

In order to achieve this objective, time series data will range from 1980 to 2017. Data for KF would be made by residual method. Secondary data would be obtained from separate websites like World development indicators (WDI), International debt statistics (IDS) of WDI and PolityIV.

3.7. ESTIMATION TECHNIQUE

This section provides the crux for the research work. It gives the estimating technique through which we will analyze the determinants and consequences for our model and also the short or long run duration of variables i.e. between regressor and regressand variables. To attain such objectives, different methodological techniques would be used to find accurate and précised model.

3.7.1. *Residual Method*

There are five estimation methods like Residual Method (World Bank, 1985; Morgan Guaranty, 1986), Dooley Method (Dooley, 1986), Trade Mis invoicing Method (Bhagwati, 1964), Hot Money Method (Cuddington, 1986) and The Asset Method (Hermes and Lensink, 1992). Last two methods (i.e. Hot Money and The Asset method) are both the direct methods approaches and does not captures the whole data as it excludes home country flows. So, it is much better to use among indirect methods (i.e. Residual Method, Dooley Method and Trade mis invoicing) in order to capture capital flight (Schneider, 2003). Trade mis invoicing method (1987) has a major drawback

as it does not provide the actual data of capital outflows, because of the under and over mis invoicing of imports and exports.

Residual method formed by World Bank (1985) has been used, in order to find the magnitude of capital flight (KF). The reason behind using this methodology is due to its authenticity and reliability, as most of the studies have used this technique (Tabassum et al., 2017; Ahmad and Sahto, 2015; Saheed and Ayodeji, 2012; Onyele and Nwokocha, 2016; Ellyne and Mbewe, 2015). Claessens and Naude (1993) used Dooley method and the findings were similar to the Residual method.

Residual method is captured by the sum of change in external debt, net FDI minus the sum of (change in reserve level and current account balances).

KF= Δ Ext debt + FD - (Δ Reserv+ CA) … Eq (5)

Where as

KF denotes Capital outflows

Ext debt denotes External debt

FD denotes Foreign Direct Investment

CA denotes Current Account balances and

Reserv denotes the foreign reserve levels.

3.7.2. *ARDL Cointegration Technique*

As the study examines the determinants and also the impact of capital flight (KF) on Economic growth (EcoGr), Investment levels (Invest) and on debt servicing (Debtser) for that, we used Autoregressive Distributed Lag (ARDL) technique. The reason behind using this technique is that, firstly' our sample size is small and covers the time span of 1980 to 2017 (between 30 to 80 years). Secondly' to check whether our model has Autoregressive terms[26] or not, and also to investigate the presence of long run relationship between variables. If, they are non-stationary at level and becomes stationary after first difference (Gujarati, 2004), means that can be useful for mixed combination (i.e. variables are integrated at I (0) and I (1)) and also, it can be applied to same order of integration for all the variables (i.e. I (1)) variables. Lastly' it provides unbiased and rational 't' statistics for the long run model even if' there is some scale of Endogeneity issue in the model (Pesaran and Shin, 1999; Odhiambo, 2010; Harris and Sollis, 2003; Odhiambo, 2009). As we

[26] It provide us information about the lag formation of the model.

assume Endogeneity in our models (i.e. correlation of error terms because we take the lagged level variables or lagged difference terms) so, in order to solve the problem of Endogeneity, we need to specify the lag selection of the variables accurately (Pesaran & Shin, 1999), and for optimal lag selecting criteria we used VAR lag selection criteria.

3.7.2.1. Augmented Dickey-Fuller Test

In order to run the ARDL model, it is better to check the stationarity. When $\beta = 1$, it states that the data is nonstationary or has a unit root problem. It shows that explanatory variables are highly dependent on error terms. Jawad (2013) study revealed that macroeconomic variables mostly follow a stochastic trend and by taking difference it can be removed. When the error terms are correlated then we are having a serious problem and we have to fix this by adding lag terms to the dependent variables called augmented dicky fuller. Most of the variables like EcoGr, KF and ExD etc. are dependent on time, so it is important to test the data. If the test shows deviations from mean, then it has a problem of unit root or non-stationary and by applying regression it gives spurious or bogus results.

3.7.2.2. Bound Test

Bound test gives us the idea of the presence of long run relationship. If the value of F- statistics is between I (0) and I (1) term then it predicts that there is no long run relationship between regressor or regressand terms. And if, the value of F statistics is greater than the bound I (1), it depicts long run relation between variables and then we proceed. F statistics is usually checked with 5 % of significance level.

3.7.2.3. Error Correction Model (ECM)

At the end Error Correction Model provides the information, at what percentage the model will attain the equilibrium level in the coming year. The error correction model for unrestricted dynamic model (Kiviet and Phillips, 1992) is as follows

$$\Delta y_t = \boldsymbol{\alpha}\Delta \boldsymbol{x_t} + \beta\, y_{t-1} + \boldsymbol{\theta}\, \boldsymbol{x_{t-1}} + \epsilon_t$$

The term $\mathbf{y_{t-1}}$ shows long run relationship at level, which is the lagged value of regressand variable (i.e. y_t). The regressor or independent variables are $\mathbf{X_t}$ and $\mathbf{X_{t-1}}$ is its lagged term. **"α"** denotes the short form and loss of long run information. While the term **"θ"** depicts the long run information.

"β" shows error correction term or tells about the speed of adjustment of the model, means at what percentage our model will attain its equilibrium term in the next coming year. The value of Error correction term (ECM) should range between 0 (indicates "0" percentage) that means no long run relation of the model, and less than 1 (indicates to 100 percentage) indicates stable model, the value has to be negative and significant.

3.7.1.4. Diagnostic Test

In order to check model fairness, we have used two diagnostic test. One for Residual diagnostic test i.e. Jarque Bera test and Normality test and the other one is for stability diagnostic i.e. Ramsey Reset test. Jarque Bera test tells us about the residual trend in the model i.e. whether the residuals are normally distributed or not? and Ramsey reset test predicts about misspecification i.e. omitted variable in the models. The null hypothesis is constructed as "no omitted variables" while alternative state "omitted variables". The acceptance or rejection criteria has been based on probability values, if the p value > 0.05, we accept H_o otherwise we reject H_o and go for the alternative hypothesis.

CHAPTER 4

RESULTS AND DISCUSSION

4.1. INTRODUCTION

The aim of the research is to provide the real empirical results that are highly associated with reality. This section is based on the sequential progress. Firstly' we use World Bank (1985) residual method to measure capital flight (KF) for Pakistan. Then, we have used Auto Regressive Distributive Lag Technique (ARDL) technique in order to capture the determinants and consequences (i.e. KF, EcoGr, Invest and Debtser). While executing the estimates of time series data set, it is important to check the nature of each variable i.e. Stationarity or non-stationarity of the given data sets, because all the time series has a problem of nonstationary and needed to be solved. So, unit root test will be performed to see the nature and if the data set is non stationary make it stationary by taking their first difference i.e. a mixture of I (0) and I (1) [27] orders of integration (Jawad, 2013), most of the economic variables are integrated at order one (1).

Secondly' the optimal lag selection criteria has been done through VAR lag order. The selection has been based on Akaike information criterion (AIC)[28] (at 5% significance level) , then will proceed through Bounds test proposed by Pesaran et al., (2000) to examine long run relationship among variables. Different diagnostic test have been used to check the accuracy of the models. At the end, the results have been interpreted according to their significance level; whether the independent variables have some effect on the explanatory variables or not? and at what percentage?

4.2. INTERPRETATION OF RESULTS

The models for determinants and models for consequences of capital flight (KF) have been tested in this section. The only variable reserves level is stationary at level while the rest of the variables (i.e. KF, EcoGr, Debtser, ER, FD, Polstab, TX, PtED, GovExp, Inst and ExD etc.) are non-stationary, and are made stationary after taking their 1st difference.

[27] I (0) denotes that the variables are stationary at level and I (1) indicates that variables has a problem of unit root.
[28] The lower the value of AIC the better the model it predicts at general 5 % significance level.

Table 4. 1. Augmented dickey fuller (UR) test

Variable	At Level			Result	1st Difference		Result	Order of Integration
	τ-ADF with drift	τ-ADF with Intercept and trend	None		τ-ADF with drift	τ-ADF with Intercept and trend		
CA	0.056	0.218	0.464	**NS**	0.000	0.000	**S**	*I(1)*
Debtser	0.257	0.124	0.381	**NS**	0.000	0.000	**S**	*I(1)*
Inv	0.318	0.143	0.555	**NS**	0.000	0.000	**S**	*I(1)*
EcoGr	0.002	0.005	0.238	**NS**	0.000	0.000	S	*I(1)*
GovExp	0.561	0.693	0.663	**NS**	0.000	0.002	S	*I(1)*
Inf	0.001	0.006	0.290	**NS**	0.000	0.000	S	*I(1)*
Er	0.836	0.926	0.998	**NS**	0.001	0.005	S	*I(1)*
ExD	0.061	0.142	0.386	**NS**	0.000	0.001	S	*I(1)*
nFDI	0.151	0.041	0.106	**NS**	0.002	0.002	S	*I(1)*
Inst	0.262	0.325	0.131	**NS**	0.000	0.000	S	*I(1)*
Inte	0.777	0.465	0.321	**NS**	0.039	0.000	S	*I(1)*
KF	0.352	0.000	0.921	**NS**	0.000	0.000	S	*I(1)*
Polstab	0.291	0.267	0.045	**NS**	0.000	0.000	S	*I(1)*
Pted	0.626	0.391	0.999	**NS**	0.001	0.005	S	*I(1)*
Res	0.001	0.002	0.000	Stationary	----	----	----	I(0)
Tx	0.843	0.162	0.481	**NS**	0.000	0.000	S	*I(1)*
To	0.302	0.400	0.501	**NS**	0.000	0.000	S	*I(1)*

Note: *Ns shows the non-stationary data sets. While S show stationary data series. I (0) denotes that the data is stationary at level and I (1) denotes that the variables become stationary after first differencing. Most of the variables are in natural log forms like KF, ExD, EcoGr, Inf and Pted.*

4.2.1. LAG SELECTING CRITERIA

The following table shows the lag selecting criteria through VAR LAG order. Akaike information criteria (AIC) at 5% significance level will be used.

Table 4. 2. VAR lag order selection

LAG SELECTION FOR CONSEQUENCE : KF

ENDOGENOUS VAR: **KF EXD INTE INF TX ECOGR CA INST ER**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-387.8693	NA	0.030426	22.04830	22.44418	22.18647
1	-153.2480	338.8974*	6.84e-06	13.51378	17.47258*	14.89550*
2	-54.72903	93.04571	6.57e-06*	12.54050*	20.06222	15.16578

LAG SELECTION FOR CONSEQUENCE : ECOGR

ENDOGENOUS VAR: **ECOGR KF DOMINV INF XPORTS ER GOVEXP FD TX**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-407.3015	NA	0.089555	23.12786	23.52374	23.26604
1	-162.9531	352.9477*	1.17e-05*	14.05295*	18.01175*	15.43468*
2	-90.37303	68.54787	4.76e-05	14.52072	22.04244	17.14600

LAG SELECTION FOR CONSEQUENCE : INVEST

ENDOGENOUS VAR: **DOMINV KF FD ER POLSTAB INTE TRDEOPENESS ECOGR**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-587.0418	NA	31412.88	33.05788	33.40977	33.18070
1	-387.0313	300.0156*	17.90947	25.50174	28.66878*	26.60712*
2	-312.6818	78.48007	17.72575*	24.92677*	30.90895	27.01471

LAG SELECTION FOR CONSEQUENCE : DEBTSER

ENDOGENOUS VAR: **DEBTSER KF EXD PTED ECOGR TX**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-280.8838	NA	0.336489	15.93799	16.20191	16.03010
1	-166.4428	184.3771*	0.004440*	11.58016*	13.42760*	12.22496*
2	-134.6963	40.56494	0.006696	11.81646	15.24742	13.01396

Note: *Where LR denotes sequential modified LR test statistic, FPE denotes Final prediction error, AIC denotes Akaike information criterion, SC denotes Schwarz information criterion, HQ denotes Hannan-Quinn information criterion. The selection for optimal lag is based on AIC.*

4.2.2. ESTIMATION FOR DETERMINANTS

The explanatory variable is KF, the finding through Auto Regressive Distributive Lag. In order to the check the long run correlation among variables, we have to check the variables through bounds test and if the F statistics exceeds Bound (1) then, we will promulgate long run relationship. Afterwards, we will move to ARDL Cointegration technique through which the significant and insignificant variables will be sorted out and at the end we will check the model stability through CUSUM test.

The hypothesis can be constructed as follows, the null hypothesis i.e. H_o will be accepted when the value of F statistic lies between bound I (0) and bound I (1), on the contrary to this, we will reject H_o and proceed to accept the alternative hypothesis i.e. H_A. which shows the long lasting relation between variables.

Long Run Relationship (Cointegration Test)

H_o: No LR Relationship. (Null Hypothesis)

H_A: LR Relationship exists. (Alternative Hypothesis)

Table 4. 3. Bound Test for Determinants of KF

Test Stat	Value	At 5 %	
		Bound I(0)	Bound I(1)
F- stat	4.10	2.11	3.15

The value of F statistics (i.e. 4.10 > 3.15) exceeds from bound I (1) indicates long run relationship between dependent and independent variables. It means that the explanatory variables like EXD INTE INF TX ECOGR CA INST ER has LR impact on KF and it follows ARDL (2, 1, 2, 0, 1, 0, 1, 2, 1) general to specific model. So, now we will proceed to find the long and short run relationship for the determinants of capital flight (KF).

Table 4. 4. Dependent variable: Capital flight (KF)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(KF(-1))	0.313	0.112	2.791	0.074*
D(EXD)	3.764	1.610	2.338	0.032**
D(INTE)	-0.144	0.141	-1.018	0.323
D(INTE(-1))	-0.582	0.129	-4.524	0.000***
D(INF)	0.363	0.183	1.982	0.064*
D(TX)	-0.043	0.237	-0.183	0.857
D(ECOGR)	-0.808	0.267	-3.026	0.008***
D(CA)	-0.145	0.064	-2.270	0.037**
D(INST)	-0.353	0.079	-4.480	0.000***
D(INST(-1))	-0.183	0.087	-2.112	0.050**
D(ER)	7.653	2.006	3.815	0.001***
CointEq(-1)	-0.630	0.155	-4.062	0.000
R-squared	0.85	F-statistic		5.51
Adjusted R-squared	0.70	Durbin-Watson stat		1.80
		LONG RUN ESTIMATES		
EXD	1.812	2.192	0.827	0.100*
ECOGR	-0.597	0.368	-1.620	0.037**
ER	0.626	0.289	2.166	0.070*
C	34.749	12.542	2.771	0.013
		DIAGNOSTIC TEST		
	T statistics		**P value**	
JB test	0.906		0.636	
Ramsey Reset test	1.060		0.156	
Arch test	0.054		0.818	

Note: *KF, ExD and EcoGr in ln form. "***" denotes 1%, "**" indicates 5% and "*" is used for 10% significance level.*

The following estimate shows the determinants of capital flight for the case study of Pakistan. The past capital outflows has a positive influence (Mikelsen, 1991; Vos, 1992) on the current outflows Cuddington, 1987; Boyce, 1992; Nyoni, 2000). External debt (ExD) has a positive and significant

impact on the capital flight (Ayayi, 1997; Cuddington, 1987; Henry, 1986; Ahmad and Sahto, 2015; Kant, 1998) both in the short and long run, this is because of the debt driven theory[29] and round tripping phenomenon. High indebted country borrows more in order to meet their loans (Saxena and Shanker, 2016) and also for the expansion of the economy as a result raises the external debt level of the economy and due to financial inflexibilities [30] (Ize and Ortis, 1987; Ajayi, 1992) or weak institutions (Le and Rishi, 2006; Cerra et. al., 2008; Feldstein and Horioka, 1980) which are associated and significant in the short run, increases the chance of capital flight. Economic growth (EcoGr) shows negative significant results in both runs[31] (Aizenman et al., 2007; Tabassum et al., 2017[32]) indicates bad, collapsing and deteriorating economic conditions (Ndiaye, 2014). Inflation is significant in short run with a positive sign indicates to high inflationary pressure so, the local residents and investors losses their trust level and starts to make their portfolios[33] or by rational choice theory[34] and therefore starts to transfer their wealth or asset through legal or illegal ways (i.e. transfer of wealth through fake accounts) that reduces current account balance (Brada et al., 2011; Ajayi, 1995; Mahmood, 2013), current account balance (CA) is negative and significant in short run and increases the level of capital flight (KF) (The Express Tribune)[35].

The past interest rate is negative and significant only in the short run, lower the rate of interest, the higher capital outflows a country faces, it is because of the fact that foreign investors work on the principle of interest rate of differential[36] so, foreign investors find it less profitable to invest in the economy where there is low interest rates (Ayadi, 2018; pastor, 1990) so, the existing foreign investors repatriate their investments, resulting in an increase in capital outflows. Furthermore, in October (2018) State Bank of Pakistan (SBP) observed a cut down of 55% in Foreign direct investment (FD) (i.e. from with $354.6 million to $161.2 million) in comparison with last year (The Express Tribune, 2018). Exchange rate (ER) is significant in both the time

[29] Debt driven or sometimes called debt fueled capital flight, it occurs when country tries to fill the gap of the debt service's and take loan from abroad but due to weak institutions it causes immense capital outflows as the residents expect higher tax levels in future.

[30] Financial inflexibilities refers to a stage when the firm is unable to handle unusual or unexpected expenses, events or chances.

[31] In short run, at 5% while in the long it is significant at 10%.

[32] The results also investigated adverse impact of political instability, low level of employment and labor immigration on growth by using 2SLS.

[33] Portfolios depicts to different choices, among which they have to choose.

[34] In which, individual has the right to make good and appropriate choice among different costs.

[35] NAB filed reference against fake accounts and has witnessed illegal transactions through these accounts.

[36] Interest rate of differential is the difference among home countries interest rate and foreign interest rate.

spans, positive signs show currency depreciation and it depicts to portfolio choice theory, as if the economy has lower income level so they send the asset abroad (Saheed and Ayodeji, 2012; Uguru et al., 2014; Cuddington, 1986; Onoja, 2015).

The ARDL Cointegration result shows significant negative Cointeg (-1) value which lies between 0 and 1, means that the variables like capital flight will converge to equilibrium by 63 percent in coming year. While the diagnostic tests show that the model is free from omitted variable bias, autoregressive conditional heteroscedasticity (ARCH), and non- normality.

4.2.3. ESTIMATION FOR CONSEQUENCE OF CAPITAL FLIGHT

In this section, all the 3 models will be tested for the consequences of capital flight. These model incudes Eco growth model (EcoGr), Investment (Invest) model and Debt servicing (Debt service) model. In which we will check whether our concerned variable i.e. Capital flight (KF) has any impact on the above models or not?

For that, we will first apply bound test. The following hypothesis will be tested.

H_o: No LR Relationship.

H_A: LR Relationship exists.

If the value of F statistics is in between bound I (0) and bound I (1), then we will accept the null hypothesis i.e. H_o**,** of no long run relation between our model. And if, the F statistic is greater than bound I (1) in that case we reject the null hypothesis, means that we accept the alternative hypothesis i.e. H_A that there exists a long run relationship.

Table 4. 5. EcoGr Bound Test

Test Stat	Value	At 5 %	
		Bound I(0)	Bound I(1)
F- stat	3.53	2.11	3.15

The value of F statistics (i.e. 3.53 > 3.15) exceeds from bound I (1). It indicates that long run relationship exists between dependent and independent variables, means that the explanatory

variables like KF DOMINV INF XPORTS ER GOVEXP FD TX has a long run impact on EcoGr and it follows ARDL (1, 0, 1, 0, 0, 1, 0, 0, 0) general to specific model.

Table 4. 6. Invest Bound Test

Test Stat	Value	At 5 %	
		Bound I(0)	Bound I(1)
F- stat	3.86	2.17	3.21

As, the value of F statistics has a greater value than bound I (1), depicts to a long run relationship between variables and predicts that KF FD ER POLSTAB INTE TRDEOPENESS ECOGR has impact on Inv and it follows ARDL(1, 0, 2, 1, 2, 0, 1, 2) general to specific model.

Table 4. 7. Debtser Bound Test

Test Stat	Value	At 5 %	
		Bound I(0)	Bound I(1)
F- stat	3.48	2.39	3.38

Similarly, the value of F statistics (i.e. 3.48 is greater than 3.4) exceeds from bound I (1) it indicates a long run relationship among Debt servicing and other specific variables. It means that the variables like KF EXD PTED ECOGR TX has long run impact on Debtser and it follows ARDL (1, 0, 0, 0, 0, 0) general to specific model. It means that all the above models shows long run relation between dependent and independent terms so, we proceed for Auto Regressive Distributive Lagged terms (ARDL) long run and short run models.

4.2.4. ARDL SHORT AND LONG TERM ESTIMATES

Table 4. 8. Dependent variable: EcoGr

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(KF)	-0.138	0.035	-3.938	0.005***
D(INV)	0.127	0.073	1.741	0.094*
D(INF)	-0.004	0.071	-0.056	0.956
D(XPORTS)	-0.010	0.057	-0.179	0.859
D(ER)	-4.569	0.816	-5.598	0.000***
D(GOVEXP)	0.072	0.072	1.009	0.323
D(FD)	0.396	0.139	2.859	0.009***
D(TX)	-0.141	0.106	-1.341	0.192
CointEq(-1)	-0.617	0.176	-3.511	0.000
R-squared	0.618	**F-statistic**		3.676
Adjusted R-squared	0.450	**Durbin-Watson stat**		2.370
		LONG RUN ESTIMATES		
KF	-0.234	0.106	-2.206	0.045**
ER	-0.986	0.382	-2.580	0.016**
FD	0.234	0.131	1.788	0.086*
C	4.184	2.144	1.952	0.062*
		DIAGNOSTIC TEST		
		Test Statistics		**P value**
JB test		0.881		0.304
Ramsey reset test		0.898		0.378
Arch test		0.515		0.477

Note**: Variables like KF and Inf in Ln form. "" denotes 1%, "**" indicates 5% and "*" is used for 10% significance level.*

Capital flight (KF) has a negative impact on the economic growth (Tabassum et al., 2017; Fischer, 1993; Makochekanwa, 2007) both long and short run (at 5% level of significance), it depicts that whenever money or any capital leaves the home economy it causes a distress situation as if' the capital outflow is in the liquid form like money or bonds then money supply reduces from the economy and raises the inflationary pressure (Fischer, 1993) and increases the price of imported

goods in the economy and on the other hand, if the capital that flows out is in the form of asset, it will raise the cost of production and trading (i.e. doing business) because in a developing country like Pakistan, there has a resource scarcity consequently' negatively affecting the growth of the economy (Quazi, 2007; Nyoni, 2000)[37] and reduces the purchasing power, this generates a ripple effect and creates inflationary pressure and worsens the economic condition.

Investment level (Inv) is significant in the short run and associates positively and foreign direct investment (FD) are significant in the both time spans, indicates that whenever the investment level and foreign direct investment rises economic growth increases (Kolapo and Oke, 2012). Furthermore exchange rate appreciation (Onoja, 2015; Uguru et al., 2014) has a positive impact on economic growth.

Table 4. 9. Dependent variable: Investment

Variable	Coefficient	Std. error	t-Statistic	Prob.
D(KF)	-0.144	0.053	-2.743	0.013**
D(FD)	0.334	0.193	1.728	0.100
D(FD(-1))	0.662	0.188	3.519	0.002***
D(ER)	-0.062	0.024	-2.639	0.016**
D(POLSTAB)	-0.032	0.028	-1.154	0.263
D(POLSTAB(-1))	-0.139	0.030	-4.588	0.000***
D(INTE)	-0.298	0.088	-3.392	0.003***
D(TRDEOPENESS)	-0.028	0.047	-0.592	0.561
D(ECOGR)	0.004	0.181	0.024	0.981
D(ECOGR(-1))	0.514	0.223	2.305	0.033**
CointEq(-1)	-0.519	0.067	-7.772	0.000
R-squared	0.76	**F-statistic**		3.75
Adjusted R-squared	0.56	**Durbin-Watson stat**		2.25

[37] (Quazi, 2007) also find out that capital flight is also caused due to asymmetrical tax level and financial instability. While (Nyoni, 2000) also find that Interest rate and Exchange rate are the important determinant for CF for Tanzania.

LONG RUN ESTIMATES

Variable	Coefficient	Std. error	t-Statistic	Prob.
KF	-0.215	0.175	-1.23	0.235
ER	-0.147	0.039	-3.744	0.001*
POLSTAB	0.180	0.072	2.497	0.022**
INTE	-0.610	0.265	-2.296	0.033**
TRDEOPENESS	-0.387	0.195	-1.979	0.062*
ECOGR	2.640	0.999	2.644	0.016**
C	31.016	15.543	1.995	0.061

DIAGNOSTIC TEST

	TEST STAT	P VALUE
JB test	0.753	0.686
Ramsey reset test	0.357	0.724
Arch test	0.021	0.887

Note: Variables like KF and EcoGr are in Ln form. *"***" denotes 1%, "**" indicates 5% and "*" is used for 10% significance level.*

The variable capital flight (KF) has a negative impact on investment (Hermes and Lensink, 1992; Ajayi, 1997) only in the short run. It means that higher balances[38] held by central bank, are transferred to fake accounts (The Express Tribune)[39], sometimes it can be transferred within the same state and among different banks (Henry, 1986) which leads to lower investment levels. Interest rate is significant in both runs, the inverse sign shows the basic economic term of lower cost of borrowing, when the businessman or domestic investor finds lower interest rate, it provides incentive and encourages them, as they speculate about future higher returns, just like portfolio choices so they invest in the capital or raise their consumption level thus increases the investment level of the economy.

Economic growth (EcoGr) is positive and significant in both time spans, means that when economy works in a stable environment its productivity level increases which raises the investment and new capital formation and thus' leads to optimal level. Foreign direct investment (FD) is only

[38] Brada et al., (2011)[38] also found positive and significant impact between current account (CA) surplus
[39] NAB filed reference against fake accounts and has witnessed illegal transactions through these accounts.

significant and positive for short run, depicting bi-casual relation occur among investment and foreign direct investment (Ullah et al., 2014). Past Economic growth, Political stability and Exchange rate appreciation or currency appreciation (Adesoye et al., 2012) are significant in both runs, indicates to strong and stable economy due to which investment rise. Tradeopeness (To) is negative and significant only in the long run, means developing countries collect about 10 to 20 percent of revenues from tariffs (Yasmin et al., 2006) and cause to raise the domestic good prices while reduce imported product price (Prichett & Sethi, 1994) in order to boost infant industries trade barriers are needed to increase investment levels of the economy.

Table 4. 10. Dependent variable: Debt servicing

Variable	Coefficient	Std. error	t-Statistic	Prob.
D(KF)	-0.024	0.446	-0.053	0.958
D(EXD)	13.039	7.067	1.845	0.075*
D(PTED)	-3.217	2.796	-1.151	0.259
D(ECOGR)	-1.992	1.393	-1.430	0.163
D(TX)	0.821	1.017	0.810	0.426
CointEq(-1)	-0.875	0.174	-5.037	0.000
R-squared	0.79	**F-statistic**		18.75
Adjusted R-squared	0.75	**Durbin Watson stat.**		2.16

LONG RUN ESTIMATES

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KF	-0.144	0.927	-0.155	0.876
EXD	23.958	6.963	3.441	0.002**
TX	2.679	1.168	2.294	0.016**
C	-124.054	55.337	-2.242	0.032

DIAGNOSTICS TEST

	Test statistics	P value
JB test	1.183	0.145
Ramsey Reset test	0.134	0.894
Arch test	0.189	0.667

Note: Variables like KF, EXD and PteD are in Ln form. *"***" denotes 1%, "**" indicates 5% and "*" is used for 10% significance level.*

There is a negative but highly insignificant impact of KF on the level of Debtser in both runs, the coefficient sign depicts that whenever capital outflows is lower indicates to surplus in current account and reserve levels as it will cause to stabilize the home currency[40] that leads to pay higher principle amount payments. External debt is positive and highly significant in both long and short run, refers to debt overhang[41] situation, the more debt service the economy has to pay, the more loans it take from the rest of the economies (Claessens et al., 1996; Krugman, 1988). Taxes are highly significant in the long run only, means the higher the tax revenue an economy generates, the greater the amount of debt service it will be able to pay.

The ECM terms predict the convergence of the models meaning that economic growth model will converge by 62 percent, Investment model by 52 percent and debt service model by 87 percent in the next coming period. While the remaining will be adjusted by second period. The diagnostic test shows that all the three models are devoid of the problems like omitted variable bias, non- normality issue and autoregressive conditional heteroscedasticity (ARCH).

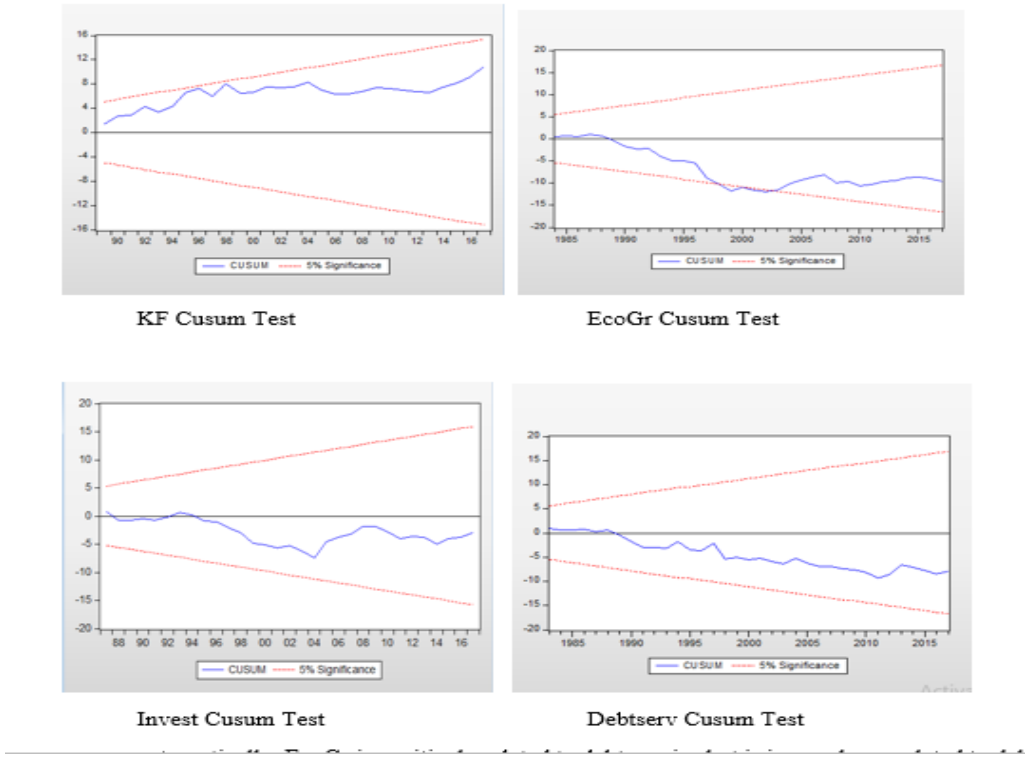
[40] Currency appreciation indicates to stable economy, a rise in the domestic currency face value relative to other countries currency.

[41] Debt overhang situation refers to high stock of foreign debt and the domestic economy finds it impossible to repay the amount. (Henry, 1986; Ahmad and Sahto, 2015; Kant, 1998) states that due to high level of capital flight from the economy, external debt increases as a result country faces higher debt service (the amount that needs to be paid back)

4.2.5. STABILITY TEST

The model stability has been checked through CUSUM TEST *(Figure.1*). All four models (i.e. KF determinants model, EcoGr model, Invest model and Debtserv model) lie within ± 5% bonds of significance level, states towards model stability, means that our ARDL models have stable parameters.

Figure 1. Stability Test



Note: *Figure 1. Shows KF Cusum test, Figure 2. Indicates to EcoGr CUSUM test. Figure 3. Is used to show Investment CUSUM Test, while Figure 4. Shows Debtser CUSUM stability test.*

CHAPTER 5

CONCLUSION AND POLICY IMPLICATIONS

The study investiagtes the reasons and consequences for Capital flight and covers the time span of 1980 to 2017. The Auto Regressive Distributive Lags (ARDL) technique has been used. The findings state that the past capital outflows, external debt, weak institutions, economic growth, inflation, current account balance, interest rate, exchange rate are significant factors for capital flight. Economic growth is negatively associated to capital flight in both runs. The investment level has a negative association with capital outflows only in the short run. At the end, debt service shows highly insignificant but negative coefficient of capital flight in both runs.

As capital flight is one of the major issues of the developing economies like Pakistan. Steps should be needed to control the illegal or legal movement of capitals. As it deteriorates the economic growth of the economy and once economic growth falls it becomes more difficult to regain its optimal level. Due to capital outflows, the investors lose their trust levels as a result the investment level declines. For this, capital outflows needs to be controlled from the economy, the government should try to maintain interest rate as interest rate differential causes portfolio diversification phenomenon, fluctautions in the exchange rate needs to be monitered properly, build strong institutions in order to provide check and balance on the outflows, higher inflationary pressures deteriorate the economy and encourage the residents to make portfoilio choices that must be controlled and also the foreign borrowings should be minimized.

But, it is a difficult task to completely terminate capital flight from economy as, it involves un recorded transactions and these records are intractable. So, at the end, it doesnot matter what kind of the domsetic economy is it? Because most of the people would like to send their wealth abroad willingly to gain personal benefits, so' one must educate the other as it involves moral values as it is prerequisite of the society.

APPENDIX

Table 2. Construction of Variables

Variable	Form	Explanation	Source
Capital Flight	KF	It is made from residual method, in which we have added net FD and current account along with the difference of external debt and change in reserves.	WDI
Reserve	Rz	Reserve assets are foreign assets which are available and is controlled by monetary bodies in order to finance their needs, e.g. golds, foreign currency and SDR's etc. The data is in current US $.	WDI
Economic growth	EcoGr	Economic growth refers to the economic stability, increase in the production of goods and services in each period.	WDI
Tax	Tx	The total revenue generated by government through government sectors or by residents of the state, for public purposes. (Current US $).	WDI
External debt	ExD	The flow of monetary assets or resources from a developed to a developing country.	WDI(Debt Statistics)
Foreign Direct Investment	FD	Foreign direct investment is the inflows of foreign capitals, assets and investments by foreign investors. It can be taken as % of GDP	WDI
Private sector Ext. Debt	PtED	The loan that is owed to non-residents (private banks and entities) by the residents of the state, which should be repayable in currencies, good or in services.	WDI
Inflation	Inf	Inflation is a measure through GDP deflator.	WDI
Current Account	CA	It is taken as the sum of all the exported goods, services, net primary and secondary income. It is present in current US$.	WDI
Total Debt service	Debtser	Debt repayments in currency goods etc. on LR, SR and also includes repayments to IMF. % of GNI	WDI
Exchange rate	ER	It represents the relative prices of the product with other countries product price. It is present in Local currency.	WDI

Investment	Inv	It is taken as Gross domestic fixed investment and in percentage of GDP. It incorporates all capital formation domestically etc.	WDI
Interest rate	Inte	It is the % of exports of goods, services and primary income. It is the total amount that is being paid in currency, goods or services on long and short term debt and the charge amount to IMF.	WDI
Political Stability	Polstab	Political stability ranges from 10 to -10. -10 indicates political instable economy while +10 Shows highly democratic society.	Polity IV
Institution	Inst	Strong institutional bodies, that conduct rule of laws, provides check and balances etc. Range lies from -10 to +10. -10 indicates to weak institutional bodies or vice versa.	Polity IV
Tradeopeness	To	Sum of countries Imports with countries exports present as the percentage of GDP.	WDI
Government Exp	Gov Exp	All the expenditures on current bases by government in order to purchase goods and services, plus it also adds the expenditure that are used on defense and security purposes of the nation but keep out military expenditure of government (% of GDP).	WDI

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