FISCAL DECENTRALIZATION ITS IMPACT ON GROWTH AND STABILITY

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CERTIFICATE

This is to certify that this thesis entitled: **"Fiscal Decentralization its impact on Growth and Stability"** submitted by **Wasiq Amin Khan** is accepted in its present form by the PIDE School of Social Sciences, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree in Master of Philosophy in Public Policy.
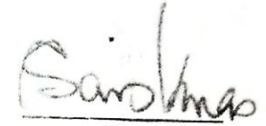
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Dedication

I dedicate this Research to my beloved parents, they have been; they are a source of inspiration and support, and their love encouraged me at every step of my life a step. I dedicate my little effort to my brothers and siblings, whose love, trust, and blessings are unforgettable for me.

WASIQ AMIN KHAN

Author's Declaration

I **WASIQ AMIN KHAN** hereby state that my M.Phil. Thesis titled "**Fiscal Decentralization Its Impact on Growth and Stability**" is my own work and has not been submitted previously by me for taking any degree from Pakistan Institute of Development Economics or anywhere else in the country/world.

At any time if my statement is found to be incorrect even after my Graduation the university has the right to withdraw my M.Phil. Degree.

Date: _____   Signature of Student

Table of Contents

LIST OF ABBREVIATIONS

FD   Fiscal Decentralization

LGs   Local Government

GDP   Gross Domestic Product

NEC   National Economic Council

NFC   National Finance Commission

CG   Central Government

PFC   Provincial Finance Commission

USAID   United States Agency for international development

SNG   Sub National Government

FBR   Federal Board of Revenue

IMF   International Monetary Fund

SBP   State Bank of Pakistan

WDI   Word Development Indicators

INV   Investment,

TO   Trade Openness,

INF   Inflation,

LF   Labour Force,

FT   Federal Transfer

ADF   Augment Dicky fuller test

LIST OF FIGURES

LIST OF TABLES

Abstract

The Study discusses fiscal decentralization and its impact on economic growth and stability in an analysis of many policies that are in exercise for decentralization. 18th amendment has fulfilled the requirements of self-rule and shared rule in Pakistan. The two federal conceptions were the set parameters to approach the 18th constitutional amendment in Pakistan. This historical amendment has converted the entire federal political system to one decentralized and participatory. The federal system was highly centralized and less participatory before the amendment. In the framework, the empirical evidence suggests that fiscal decentralization will have to affect the economic growth in the long-run only where the provinces are allowed and incentivized for higher own source revenue generation on the other higher federal transfer (another important source of fiscal decentralization) only had short-run effects for the economic stability and growth in the case of Pakistan. While the descriptive analysis of the study discusses the expenditure decentralization and growth expenditure decentralization can lead to higher corruption in the local government for many reasons. Expenditure decentralization makes subnational governments more autonomic in providing public services and projects. As argued above "expenditure decentralization promotes economic growth but lack of governor's system reduce it.

Keywords: *fiscal decentralization, tax autonomy, economic growth*

CHAPTER 01
INTRODUCTION

1.1 Study Background

Decentralization is the transfer of responsibility and duty or authority of public capabilities to Local Governments (LGs) from the central Government or quasi-independent government bodies. It is a multifaceted thought, which does require substantial reorganization of public sector provider shipping and finance to become effective. Indeed, it is the need of the hour to transfer power and authority from the central government to the provincial government. There is at three major types of decentralization.

Fist form of decentralization is De-concentration is regularly deliberated to be the weakest method of decentralization, they redistribute decision-making ability and finances managing responsibilities between different ranks of the federal government. They can simply shift responsibilities from the central government representative's capital city to those in provinces, regions, or districts (Gordin,2004).

The second form of decentralization is Delegation is a more extensive method of decentralization. Throughout delegation central government allocation duty or responsibility for decision making and responsibility of public tasks to semi-autonomous bodies not controlled by the central government, but ultimately accountable. They may be controlled or regulated by regular administration deal staff and may be able to charge users directly for services.

The third form of decentralization is Devolution. They transfer power or authority for decision-making, organization, and finance to minor or small autonomous units of local government with the commercial position. Devolution mostly transfers duties, tasks, or responsibility for services to lower-level concerns like districts/municipalities/councils that elect their own mayors and

councils raise their own revenue, and have independent authority to make investment decisions. In a devolved system, LGs have clear and legally recognized geographical boundaries over which they exercise authority and within which they can create strong local administrative ability or field administration. (Ahmad 2020) has tried to understand decentralization distribution of resources under NFC award, i.e. federal transfers or other conditions to measure decentralization, i.e. in Pakistan revenue generation by the provinces is needed important to achieve the goals of fiscal decentralization. A study showed that simple fiscal decentralization in NFC award has not had much effect on growth but revenue generation sources at a provincial level well efficiently affect economic growth. Instead of being dependent on the central government. The provincial government should be encouraged and motivated to generate its resources. (Khattak et al., 2010)

1.1.2 The 18th amendment and (NFC) Vertical and Horizontal Resource Distribution;

The 18th constitutional amendment and the 7th National finance commission (NFC) award reshaped the fiscal landscape of Pakistan. Indeed, transfer of power and authority from the central government to the provincial government is the need of the hour. The provinces enjoy more autonomy in performing various functions within their jurisdictions. It is a multifaceted thought, which does require substantial reorganization of public sector provider delivery and finance to become effective. These developments have resulted in a fundamental shift in the division of power between the central and the provinces.

Based on the 7th NFC award, 57.5 percent of resources collected by the federal through FBR are transferred to the provinces using that criteria.

Vertical Resource Distribution

Population (82 percent)

Poverty (10.3 percent)

Revenue collection(5percent)

Population density (2.7percent)

Horizontal Resource Share

Punjab   51.74 percent

Sindh 24.55 percent

Kpk   14.62 percent

Baluchistan 9.09 percent

1.2 Historical and constitutional background

The united states as the fist modern state to have a federal political model system in 18century. There are currently about 25 federal states in the world, including some of the most complex and largest democracies. A constitution can be known as federal if it has some well-known features of democracy multilevel government stiff constitution and bicameralism the government at each level has autonomous land according to (William Ricker)

The British government had introduced federal features in several constitutional acts the allocation of power to the local community might have been limited yet important the act existing in British not was India however acceptable to the Muslims resultantly.

All Indian groups in sub-continents were absorbed in a colonial system with many construction reforms or Acts passed under concern by British Royals (1909,1919 and 1935). The Muslims and Hindus demanded provincial autonomy in British India. Mr. Nehru a congress leader presented reports in August of 1928 and demanded a federal system. Mr. Jinnah equally demanded a federal political system his Fourteen points were present on (march 28 1929). The situation ended the united India division separated into two autonomous states Pakistan and India 1947.

The country's demand for provincial autonomy had gained momentum. Ayub khan government was stable despite close inspection with numerous problem. Political parties stood up against the president and raised their voice against one unit. (Rabbani, 2017,) Prime Minister Chaudhry Muhammad Ali implemented the framework of the One Unit Program on 14 October 1955. The disappearance of these groups will strengthen the integrity of Pakistan." when the National Assembly of Pakistan voted on 30 September to make the whole of West Pakistan a province. Bill passed in 1955. A unit by the federal government of Pakistan to merge the four provinces of West Pakistan into a single unit, as a counterbalance to the numerical dominance of ethnic Bengalis in East Pakistan (now Bangladesh). The scheme launched was titled.

The anarchic situation forced Ayub khan to have over the charging of the state to other military commanders Yahiya khan. They come to power and dissolved assemblies. Yahiya khan repealed the one-unit system of 1962 construction. He announced the elections the historic election result was quite interested as no political party is getting a majority of seats in the country. This problematic situation escalated and resulted in the separation of the eastern part of the country in December 1971. After the failure of the east wing, Yahiya khan resigned from his office and handed over the government to Zulfiqar Ali Bhutto. The newly appointed president Bhutto government introduced the third constitution and it was implemented in 1973. This constitution

was then suspended in (July 1977) by general Zia after the suspension of the Bhutto government. The federal system of bicameral legislative assemblies and separation of power was restructured (Sabri 2002). The 8th constitution of amendment and article 58(2) b empowered constitutionally by General Zia. Even after his passing, the 8th amendment was repeatedly imposed by different presidents in the political regime of Pakistan. under this article, Benazir and Nawaz Sharif lost the democratic government in the period from 1990 to 1999 and then martial law was imposed and General Musharraf assumed the presidency.

The Pakistan people's party (PPP)In April 2010 with the consent of all political parties presented the 18th constitution amendment proposal in the parliament. President Asif Ali zardari approved the bill. This amendment is no doubt historic because it re-introduced the concept of a lax federal government. Construction in democratic governance systems in Pakistan has brought significant changes. Some changes the National Economics council (NEC) the president shall establish an NEC that will cover the federal and provincial members the prime minister would be the Head of the NEC all the members will be selected and nominated by the prime minister. The province lags down to submitting the report once a year to the parliament. NEC will be responsible for monitoring the economic situation in the country and advise the government to make plans that organized economic, social, and financial policy.

The 18th amendment introduced key and significant changes in the whole governance process also had a deep impact on intergovernmental fiscal transfer they shifted the authority or power to the local authority from central government provinces to impose sales tax on services under the FLL Article 70(4) (Sabir, 2014) they all are now provincial duty few issues are also passed on under the amendment like population arrangements, Health, education, labour, etc.

In devolution in practice, the NEC states that the provincial share in the next NFC will be reduced by the share given to the province in the next award. In the 8th NFC Award, the share of the provinces cannot be reduced below 57.5%. The 18th amendment clarified that the foreign credit facility to the province was before it was run by the Economic Affairs Division of the Federal Government. Worry about the poor steps involved in approving these loans. The federal government charged higher interest rates. The 18th Amendment allows provinces to borrow from abroad Article 167 (4) states that provinces can use any international and local financial assistance.

Role of national finance conical

The main focus of the amendment was to transform the planning and development sector by the province with greater responsibility, which required guaranteed a proper investment and order in Human Resources. The financial position of the provincial is binding under the amendment. The province now has the right to raise gross revenue through natural resource revenue or excise duty. The amount allocated to the provinces in the 7th NFC Award has already been decided. Taxes and duties on various services are now local body duties (khan,2011).

1.2.1Research Gap

Fiscal decentralization is measured to be a key policy weapon to reach or complete economic productivity and to ensure useful active governance through the financial autonomy of provincial governments. It services the smaller units of a union or a federation to grab a part in the development of the economy of the region and finance the possibility or opportunities for the central government (CG) to complete the national level duties and responsibilities more competently. However, there is room for fiscal policy to encourage growth, providing the fiscal deficit is kept below the beginning stages and public spending is directed into a productive

investment that raises or grows the country's long-term growth potential. The relocation of expenditures and resources is the key principal policy implemented towards eliminating inequality, and poverty then issue to the facility of institutional class. Poor provincial ability to economically generate their own resources as well as provincial dependence on federal transfers the study suggested have negatively affected the long-run economic stability and growth of Pakistan (Yasmin and shahzad 2016). Fiscal decentralization provides the local social needs for achieving social goals it is a key policy instrument. (Ahmed 2016)

The resource distribution is done through the National finance commission (NFC) Award in Pakistan. According to the (NFC) award, all the provinces are given their share and the provinces distribute it through the Provincial Finance Commission (PFC). The fiscal decentralization tool implemented in Pakistan during the previous period has miscarried to produce ideal outcomes. Similarly, the institutional value (Democratic quality) and the impact of fiscal decentralization direction can change poverty. Ahmed (2015) consumes also acknowledged that Elite or exclusive capture amount affects fiscal decentralization.

 that similar to revenue and expenditure levels, decentralization will improve the accountability and responsibility of sub-government, that increasing the fiscal duty or responsibility by promoting the process of revenue decentralization may confirm productivity in expenditure but sub-government There is a great need to streamline the process. An imbalance between the two parties has a habit of being financially irresponsible and immature. If their disequilibrium concerning expenditures measures the worse centralization of revenues in a country, the subnational government relies more on federal transfers than on generating more of its resources to manage its expenditures. In comparison, that is tempting to dispose of or spend less efficiently. (Hani & Gage 2017).

According to a previous study, the distribution of resource mechanisms was unsuccessful to affect economic growth in Pakistan positively in the long run. Therefore, it is recommended to study the valuation and identify the extent of growth or other indicators and financial requirements. and indicate a limit of development or other indicators and fiscal needs (Naeem Rehman,1989; Faridi,2011, Shahnawaz Malik, 2006). The important variables should be evaluated, and the most appropriate of these should be taken into account to deal with the economic discrepancies of provinces through satisfactory or acceptable resource transfer.

1.3 Research Question

i.   Is there any link between fiscal decentralization and its impact on economic Growth.

ii.   Is there any link between the increase or decrease in provincial tax revenues relative to federal Economic Growth.

iii. Is there any link between total investments (INVTGDP) and economic growth (ΔPCGDP)

1.4 Research Objectives of the study

RQ1: The study aims to investigate real federal transfer (RFTRANS) and economic growth (ΔPCGDP)

RQ2: To study the impact of federal tax revenues (PTAXTFTAXR) and economic growth (ΔPCGDP)

RQ3: To evaluate the impact of government expenditure on the economic growth of Pakistan

RQ4: Is there any link between government expenditure (GETGDP) and economic growth (ΔPCGDP)

1.5 Problem statement:

Fiscal decentralization an important role in the Growth and development of local stability. It strongly moves economic activity and social welfare projects which are running in the country. FD has measured a dynamic policy mechanism to foster economic growth. Fiscal decentralization is the movement of delegation of fiscal concerns to the sub-national government, linking devolution of powers to tax and spending along with arrangements for correcting the imbalance between resources and duties or responsibilities. Pakistan is facing many problems regarding political instability, and economic issues. Fiscal defects and inflation are almost high now the rate of inflation is from 12.7 to 13.4 which indicates the GDP growth rate goes down now and also in the coming future. The federal government monitor more for the controlling corruption and informality cause these factors reduce not only economic growth but also having pro-growth of fiscal decentralization.

1.6 Significance of the study:

At present, the implementation of fiscal decentralization in all provinces after the 18th Amendment is very poor. The biggest deficiency that is noticed is the decentralized setup of local government that worked in a single province and also in the federal government. the government doesn't have a long-term road map through which we could understand where we will be in the coming future, and how will we take it forward mean policy maker or government need to reform the system. It's an era of professionalism despite giving everything to the government many communities based Organizations are willing to work together in the social sector. Indeed, the economy is one of the keys to success for uplifting the economy and it can be a success story through proper decentralization of fiscal to provinces and at the districts and municipal level to increase the

efficiency and strengthening of the state. Fiscal decentralization with both forms of tax revenue and expenditure in boosting economic growth. In developing countries, they utilize both expenditure and as well as tax revenue. In addition, other supportive policies to enhance economic growth should focus on trade openness, human capital, physical capital, and fiscal burden, as well as appropriately controlling inflation and unemployment.

In the case of Pakistan facing this unpleasant state of affairs position of various points like unemployment, Inflation rate high, and fiscal deficit over the last several decades. the Reason behind this is that process or strategy of getting revenue generation or tax collection is very old and poor. The ratio of direct tax is lower than indict tax that higher the indirect tax and more than a half population is not paying tax that's the only key point to a generation of revenue. No economy can grow to its full potential unless everyone participates fully. Our tax to GDP ratio took at around 11% or 10.5% during the last many years. It is mainly recognized that narrow and complex tax laws base and inflexible tax system, all these facts shaped the situation of fiscal deficit. The foreign exchange reserve and current account deficit needed must be positive for sustainable growth.

Another main key reason is that if we look at the expenditure side of the economy, taking a very major share of the current revenue generation is defence and debt servicing. Pakistan's current account deficit the gap between income and foreign expenditure hit a 1.5-year high of $632 million (economics indicators Pakistan,2021) due to a slowdown of remittance from overseas Pakistani and a drop in export earnings in the previous month in 2021. Exports fell due to partial lockdowns (Third wave of covid-19) the study showed that the GDP growth rate is not sustainable since from start to now cause the GDP defined on consumer base, saving, and investment of our country is low. we need the saving to GDP ratio to increase as well as the private investment ratio needed to increase also for getting sustainable growth. Political instability and price volatility are key

significant and common problems of a Nation. Administration authority should take some resolution measures to overcome these problems which will be helpful to increase the GDP growth and reduce the country's fiscal deficit. fiscal policy and monetary policy both are needed to communicate grown the Nation's economic growth positively and keep the interest rate low that motivates the Investor or stakeholder to invest in a country. Pakistan is facing a high inflation rate and also have experienced a trade deficit for the last many years. fiscal deficit and trade deficit is the main reason behind this problem. One present increase in inflation led to reducing the investment by 80% which indicates the adverse impact of inflation on GDP growth. So it means that low investment will encourage lower economic growth. (Vit,1999) proved that budget deficit builds many barriers to economic growth current account deficit, and high level of inflation these all effect adversely economic growth. money circulation in business makes GDP ratio increase also a government collection of tax directly as well as indirect tax improve will be good for government revenue. That help to reduce the current account deficit. government should need decentralization and make provinces generate local revenue and expand new inventions to get high output to strengthen the growth and stability of the economy.

1.7 Organization of the Study.

This thesis is divided into six chapters. The first chapter of this research is devoted to the introduction, which comprises the research objective and question. It also contains some history of the study with significant relevance. Chapter 2 of the research is included the literature review it covers the study indicating that used to measure, or many research issues. Chapter 3 of the research describes the theoretical link, research methodology including the statistical technique and data collection, and model specification. Chapter 4 is included the variable used, or analysis, Descriptive analysis, and last Regression analysis. The study in which a data estimate approach is

utilized to determine the influence of fiscal decentralization on the impact of growth. Chapter 5 is a part of a qualitative study in which policymakers and expert opinions were studied some key department face-to-face meeting was questioned. Chapter 6 contains the study conclusions based on the findings and debates, as well as policy recommendations.

Chapter 02
Literature Review and Background

Before going into further details, it is important to take a look at the discussions presented in the literature. In this regard, the theoretical and empirical background, existing proxies for fiscal decentralization, mechanism of decentralization in Pakistan, and finally, measures adopted in this study to proxy fiscal decentralization are elaborated in the section.

2.1 Review of comparative studies on Economics Growth in Literature

Decentralization is an important policy option being considered by developing and transitional economies because FD is measured as an active policy mechanism to foster economic growth. Fiscal decentralization takes place through the devolution of tasks and duties for public spending and revenue collection to local government from central government (Neyapti,2010).

FD develops the growth directly by increasing the productivity of public outflows and expenditures (Oates and Samuelson 1954 and 1972 and 1993) and ultimately through developing economic productivity and efficiency creating horizontal fiscal equality by sustaining macroeconomic stability. [Blais, et al. (2011)].

When decentralization has the features of local decision-making, it consequently results in a productive and growing economy [Oates (1999)] and (neyapti, 2010). The Government of Pakistan, the federal government, and the provincial government have taken significant steps toward FD by sign the 9th National Finance Commission (NFC) passing by the 18th amendment of the Constitution has opined significant large economic authority upon the provinces and 9th NFC award has allowed them not only transfer of more funds but also a profuse range of duties responsibilities to the province from the federal government. after this elaboration, now the provinces will have more power and dependence in shipping lot of roles or serves like providing

education, health facilities and infrastructure development and maintenance of economic stability and growth. The One significant structures of the NFC award are that the federal government and the provincial government will need to modernize the tax collecting structure to increase upward their revenue to achieve the 17 percent and above the given rate of taxes to GDP ratio (GOP, 2018-19) and now in (GOP, 2020-21) to achieve more than 17 and above percent. These main important advancements would basis a major move in the allocation of powers among the center and provinces. These developments have far-reaching effects to implications for the country's long-term economic stability and growth and also economic development the empirical study the Fiscal decentralization and economic stability shows that decentralization has a positive impact on economic growth and stability. To analyse the effect of revenue decentralization on economic stability.

Bojanic (2018), American country did a very recent work that the study focuses on to find a significant or positive impact on the expenditure side but having a negative effect on the revenue side with the economics performance. But still, there is no consensus on the impact of federalism on growth, as many other different empirical investigations have found no significant relationship in different countries and for specific periods. (Hanif & Chaudhry, 2015; Hanif & Gago-de Santos, 2017). Another recent study research on panel data for OECD countries suggested that for those countries the impact on growth depends on the strategies of econometric used and the measurement criteria (Gocen et al.., 2017). Ma and King (2001) organized to conduct a study in a cross-sectional context they found set adverse relationships among economic volatility, considered to measured Studies used panel data sets for developing and developed countries to study the relationship between inflation and revenue decentralization to maintain average inflation rates and revenue decentralization for developed countries only. shows that revenue decentralization has no

beneficial or adverse effect on inflation if informed by it. State Bank autonomy or independence and local accountability. (Neyapti,2004) outcome indicates that revenue decentralization has a significant negative impact on inflation provided the central bank has legal independence. They investigate the macroeconomic impact of fiscal decentralization for a group of different countries from 1980-1998. He specified that revenue and expenditure decentralization shrink the budget deficit having an impact on the stability of the environment. Experience suggests that a poorly designed decentralized system is a serious financial risk. If a system is designed in such a way that it allows provinces to pass on their costs to other jurisdictions without having to put in their residual effort., it will result in negative effects [Rodden and Eskeland (2003), Hagen, et al. (2000)]. Similarly, situations can arise where the lower levels charges taxes even higher than the centralized level and (Lockwood and Koethenbuerger,2010) fiscal decentralization existing situations where can also result in lower economic growth. Rodden (2002) theoretically proved that though domestic revenue-raising powers re- strict the size of the government; intergovernmental transfers, on the other hand, result in higher spending behavior on the part of SNGs. Similarly, the lower administrative capacity of local authorities, corruption, and the government are also counted as potential threats linked with fiscal decentralization. (Weingast ,2014), Ivanyna and Shah (2014), Ivanyna and Shah (2011), Vo (2009)].

In brief, we need to keep in mind both the first generation as well as the second generation theories of fiscal federalism while analysing the resource appropriation among tiers of government and its control on economic growth. The empirical study analysis the effect of fiscal decentralization and economics in china the country's inflation and economic growth. The study proposes with strong evidence the economist investigate that there is a link between macroeconomics and decentralization working concert in china. Decentralization look to be positively linked to growth

in real productivity intact post-war time in china. FD seems to have opposing effects on inflation, Decentralization would hence seem to be bad for price stability and good for growth. (King & ma 2010)

(McNab and Martinez-Vazquez 2006) using panel data set for 52 developing and developed countries the study indicates the indirect and direct relationship between fiscal decentralization and economic growth and leads a country-level study. Among OECD countries, decentralization was linked with significantly lower average inflation rates in the 1970s and 1980s. the non-OECD countries, more politically and fiscally decentralized states suffered from higher average inflation rates. The Empirical analysis suggests that decentralization helps preserve central bank independence in OECD countries, while in non-OECD countries it increases pressures on the government to overspend and get the central bank to monetize the deficit.

2.2 FISCAL Decentralization is Measures for Pakistan

Decentralization is multifaceted, covering different issues ranging from the revenue raising competency to administrative responsibilities as well as covers the spending capabilities of the sub-national governments. In this connection, both the revenue and expenditure approaches were thoroughly considered to measure fiscal decentralization for this study.

This study is an expression for Pakistan because we know that Pakistan is facing the problem of economic stability. High levels of unemployment, inflation, and high fiscal and current account deficits are major concerns regarding Pakistan's macroeconomic instability. The process of decentralization is a lengthy process that involves certain features such as political decentralization, fiscal decentralization, and administrative decentralization. Amongst these features, some may not happen sometimes but a devaluation of power to provinces is key to the process of decentralization. The need for decentralization comprises certain important features

such as subsidy at the right time, ensuring good governance, accountability, carving out democracy from the grass root level, active participation of citizens, and increased efficiency of the government officials under service delivery. At the heart of decentralization, there always exists fiscal decentralization besides other features of the process which means increasing and harnessing the process of taxation from the center to the provinces. Indeed, the economy is one of the keys to success for the uplifting of the economy and it can be a success story through proper decentralization of fiscal to provinces and at the districts and municipal level to increase the efficiency and strengthening of the state.

Later with the approach, the expenditure sustained at the subnational level of government is generally used for measuring the degree of fiscal decentralization. However, with the available national data, it is difficult to exclusively discriminate between the federal and provincial expenditures in Pakistan. The development spending, indicated in the provincial expenditures, remained partly funded through foreign project assistance or was financed by the federal government. However, no clear demarcation is available to distinguish federal and provincial spending for the whole period of analysis.

Contrary to it, the revenue approach (i.e., revenue raised by different levels of governments) fits appropriately in the context of this study. The revenue approach to measure fiscal decentralization provides the required diversity for analysis. With this approach using, it is possible to identify the effects of the 'own source resource generation' of the provinces. At the same time, it enables us to capture the provinces' dependence on transfers from the federal government, in the case of Pakistan, the Revenue approach and helps in identifying the provincial resource inflows and their revenue-raising capacities that resulted from various National Finance Commission (NFC) awards over time. Important to note here is that in Pakistan, provinces were never able to finance their

expenditures; that is why federal transfers always constituted a lion's share of provincial revenues [Khattak, et al. (2010)].

In this study, the revenue approach was used to proxy fiscal decentralization. A rise in the provincial revenues would suggest a higher degree of fiscal decentralization, although the alternative sources of provincial revenue are supposed to have a different implication for economic performance.

The (USAID) the united states Agency for International development between 1993 and 2008. the study investigates to suggest a positive and direct effect of fiscal decentralization on growth in countries studied developing unions or federations done in a period 2000 to 2015. That study concludes the result shows that these federations have a significant time series positively impact on tax revenue and expenditure decentralization and economic growth. The policymakers and the authority holder in the developing world are facing gradually seriously needed to explore a new path to promote economic growth in their regions. In financial terms, total provincial revenues consist of domestic own tax revenues, non-tax revenues, and a share in federal taxes (i.e., the federal transfers to provinces). Provincial taxes represent resources that were collected and retained by the provinces. These include minor taxes that are the provincial subject and provinces were allowed to fix rates and bases for these taxes. On the contrary, federal transfers to sub-national governments were decided out of the total divisible pool at the center and these present provincial shares in the federally collected taxes [see Ahmed, et al. (2007)] for details concerning resource distribution mechanism (NFC awards) in Pakistan] Thus, there appear to be two important aspects of provincial revenues in Pakistan one is provincial domestic revenue potential (including tax as well as non-tax revenues, that were considered net of intergovernmental transfers) while the other is the federal transfers.

2.3 Proxies used for Fiscal Decentralisation

The study is to fiscal decentralization and asses its implications on economic growth in Pakistan. Four measure was used to precisely evaluate different dimensions. These measures of fiscal decentralization are explained below.

2.3.1 Provincial Tax Autonomy*:*

The provincial own tax revenues. This indicator measures the revenue-raising authority of SNG and it represents revenues over which provinces have full discretion. If Sub national governments (SNGs) have higher own source revenues, it shows higher fiscal autonomy and would indicate a higher level of fiscal decentralization. To capture the level of fiscal decentralization over time to make provincial tax autonomy measure economically meaningful, the share of provincial tax revenues is squeezed out a ratio to total government revenues.

Indeed, imbalances in the budget share can be weed out when the federating units of the state try to balance out the functions allocated to them. The imbalances in most of the cases spread out the tasks and money to the LGs. By allowing practicing minute administrative competency it can be a good choice to allow districts to properly function-oriented set of activities and functions. This will make the district official responsible for every section of the desired bureau. The existence of imbalances makes the decentralization a weak position. Indeed, for this process. there is little training and awareness exist in developing countries. In the early generation of Punjab rural support program (PRSP) that has lagged the social sector in terms of spending and allocating the budget at the national and sub-national levels.

However, question services provided by government officials should be financed through user charges. There exists little role for districts in generating revenues for that purpose the concerned

services will have to be financed through earmarked gains, and transferred by funding administrative functions at the district level to increase flexibility to make service delivery efficient.

2.3.2 Total Provincial Revenue*:*

Total provincial revenue represents the total budgetary strength of the SNG. This measure takes into account the total availability of financial resources at the provincial level. Total provincial revenues hence are measures explained above and consist of the local tax and non-tax proceeds as well as revenues from federal tax sharing (i.e., federal transfers). Thus, it indicates the total availability of funds to SNGs that provinces can use for the provision of local public goods within their jurisdictions. Importantly, although the expenditure approach was not used, this measure would provide a mirror image for it (as in the presence of federal transfers and being barred to raise international loans (during the period under analysis), provinces never generated substantive fiscal deficits or surplus in Pakistan). As local representatives have better information about local needs and preferences and are interested in their re-election; therefore, this measure would capture the effects of the spending ability of the local representatives on economic efficiency. Total provincial revenues indicate the SNG's share in total government revenues.

2.3.3 Provincial Local Revenues

Is it an additional measure of local fiscal autonomy and does it take into account the revenues or non-tax revenues that are domestically generated within the provincial boundaries? The domestic tax marks the local, and provincial revenues. The non-tax proceeds contain revenues from fines, user charges, interest, dividends, and profits from autonomous bodies. In addition, the international assistance and grants received by provinces also rest in the non-tax revenues. This measure presents the provinces' revenue generation capacity and is used here as an indicator for local fiscal

autonomy in decision-making. To be used as a measure of fiscal decentralization, provincial and local revenues are used as a proportion of total government revenues.

Alternatives for civilizing the Local Revenue Making

In many developing countries linked be a best practice for fiscal decentralization, recommend that the overall expenditures related to the ratio of local revenue collected remain low. There are many causes some are the following 1) lack of administrative capacity record many countries facing problems with the tax authority and weak local revenue collection. 2) In larger urban areas need a focus on locally generated revenue.3) Distribution of resources and transfers the grants from central government to provinces revenue share formula designed exactly narrowly like only poverty and population etc. this imbalance distribution lead to fewer incentives to locally generate.

2.3.4 Federal Transfers

 Intergovernmental transfers depict the vertical fiscal imbalance in the country. If the share of federal transfers is higher in the provincial revenues, higher would the chances for the federal government to influence local decision-making, which will be a deviation from the basic theory of fiscal decentralization. Nevertheless, it also carries the benefits described under the partial fiscal decentralization analysis by Brueckner (2009). Hence, thoroughly assessing the effect of federal fiscal transfers on the overall economic growth of the country is of high importance. Federal transfers would thus be analysed as a fourth measure of fiscal decentralization. This measure is expressed in the relative form of total government revenues.

In almost all developing countries like China, the absence of central support from the center is considered an obstacle to wall protection and effective decentralization. This is one of the reasons why the devolution of powers to provinces often misleads to the effective implementation of powers. Indeed, strong political will is needed to achieve decentralization and make it a success

story in developing countries. The absence of this political will has strongly adhered to the key ingredients of bad governance when there exists a political will it can make divert the traces of bad governance to good governance which is a key to the process of decentralization and government political agenda. For instance, case of African countries where still the basics of good governance and politics such as legislative and constitutional ethos are absurd which makes it difficult to achieve the proper implementation of decentralization. But this can not be exaggerated because there exists some form of legal and comprehensive frameworks and rout to proper implementation of decentralization.

Keeping in view the challenges in way of effective implementation of decentralization are various but the key challenge is the reservations and conflict of interest between different entities of the state. This has remained one of the key challenges which make the process of decentralization a vision in some developing countries. In Pakistan, this issue is of crucial importance since its inception it has remained central to the political and economic structure of the state. Indeed, this issue had been exacerbated by the recurrent and persistent military takeover as well. Interestingly, in most of the aftermath of the military take over they at least designed policies to devolve power to ensure democracy from the grass root level. Besides these other challenges include the lack of efficiency in the local government body and electoral college system. Most of the cases the electoral college is unable to distribute the power and resources properly. Indeed, the lack of modern facilities and capacity in the weak local government system makes it vulnerable to abused and used for illegal purposes of corruption and bribery. Based on this most of the local bodies lack transparency, and accountability, to ensure, the proper use of resources and power. Thus, challenges against the effective implementation of decentralization is a process starting from the

top and ending at the grass root local government system and often starts at the bottom and reaching to the top.

2.4 Descriptive and Expenditures Analysis:

In Pakistan exemption and concessionary regimes have been in practice for many years in the form of allowances, reduced rates and liabilities, and exemption on imports and exports. The government of Pakistan and FBR did not publish these reports and Estimates in public. To overcome imbalance, the income the government negotiated a deal with the IMF. The international monitoring fund (IMF) recommended that the budget be increased by increasing tax revenue and eliminating energy subsidies. To encourage investment and control the inflation, the IMF recommended Pakistan central bank tighten monetary policy and stop supporting the budget deficit.

The below graphs show the trends of all province expenditure. before the decentralization and After the 18th amendment.
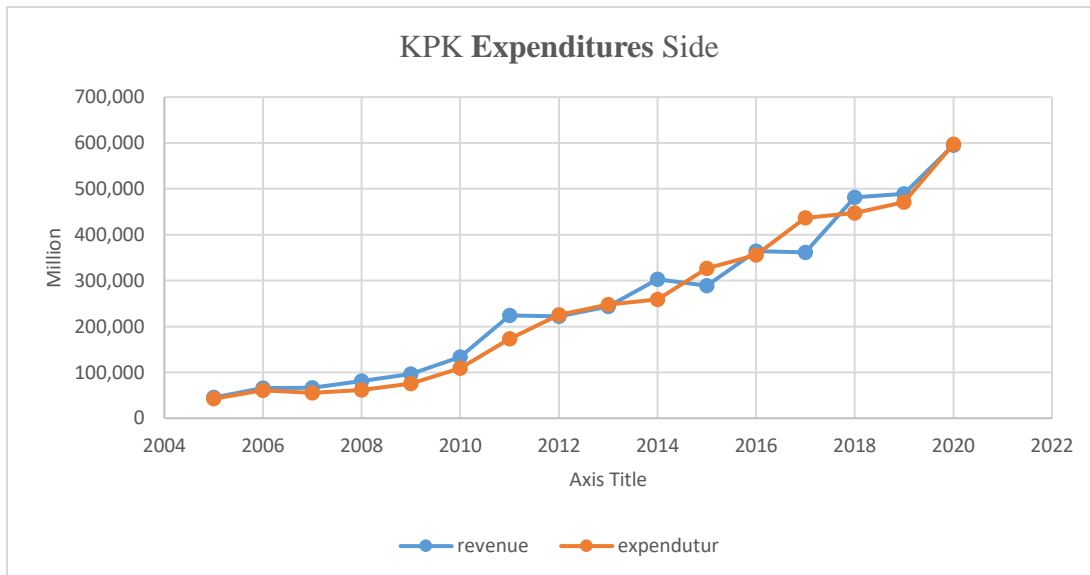
Figure 01; KPK Expenditures

These graphs represent the expenditures in KPK, before and after the 18th Amendment (Decentralization) the data has been taken from the State Bank of Pakistan. The purpose of this Chart is to check out the expenditure side of the province before and after the Amendment. The figure shows that on the x-axis there is an expenditure in (million) while on the y-axis there is a year from 2005 to 2020. The expenditure is increasing from the year 2010 to 20 similarly the revenue is going up from after the 18th amendment but the sudden failure in a 2018-year graph shows a decrease in expenditure, as well as revenue caused by political instability or general election figure, showing that the improvement in total expenditure after the Decentralization.
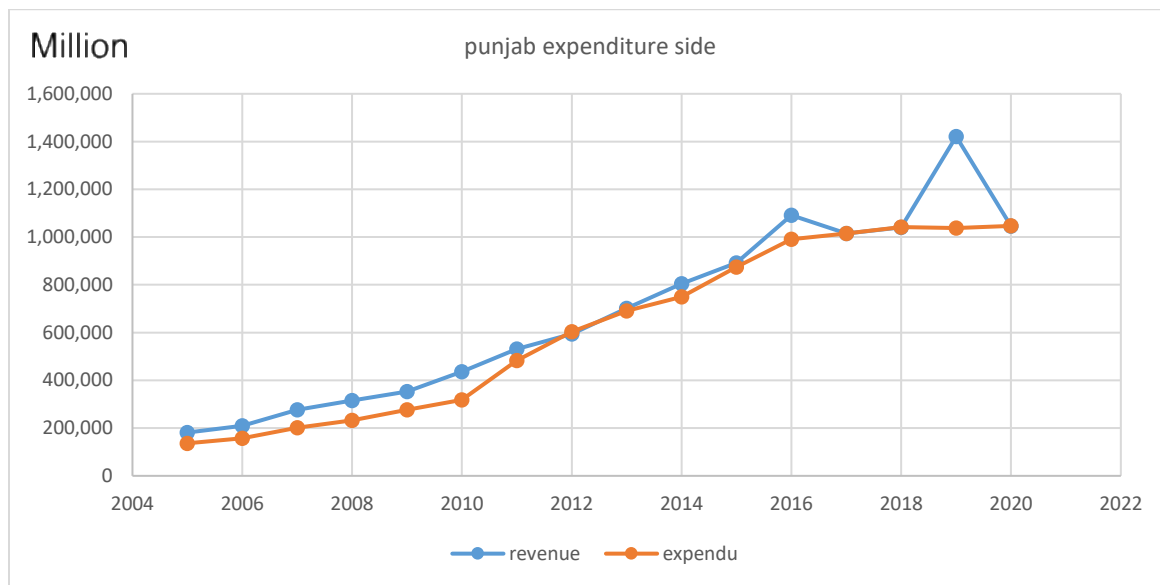
Figure 02; Punjab expenditure side

This chart represents the Punjab expenditure side same the data have taken from the ministry of finance website. The purpose is to check out the Province of Punjab expenditure and compare it with revenue.

On the vertical y-axis, there is money expend in a million while on the horizontal x-axis there is a

year from 2004 to 2020. The yellow line shows the expenditure another hand the blue line represents the to show the revenue side.

The diagram shows that before the 18th amendment, in between 2004-5 to 2010 there both are low and striate lines while another side after the devolution the expenditure goes high similarly the revenue is also going upward but less than the expenditure. The figure shows that while miner change in revenue and high change in expenditure indicate that a huge share of transfer will increase only province expenditure not the revenue.
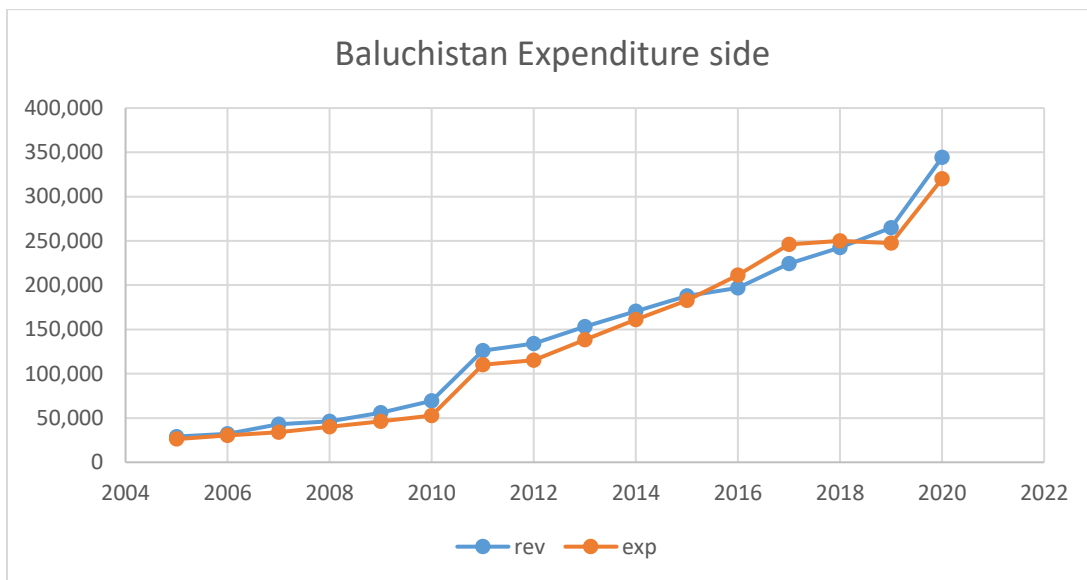
Figure 03: **Baluchistan Expenditure;**

The chart represents the Baluchistan expenditure; the figure shows after the 18th amendment that the line sudden goes up of expenditure from the year 2010 as well as revenue side goes continue to move up till 2020. While the other hand before the devolution they have no change. From the year 2004 till into the year 2010.
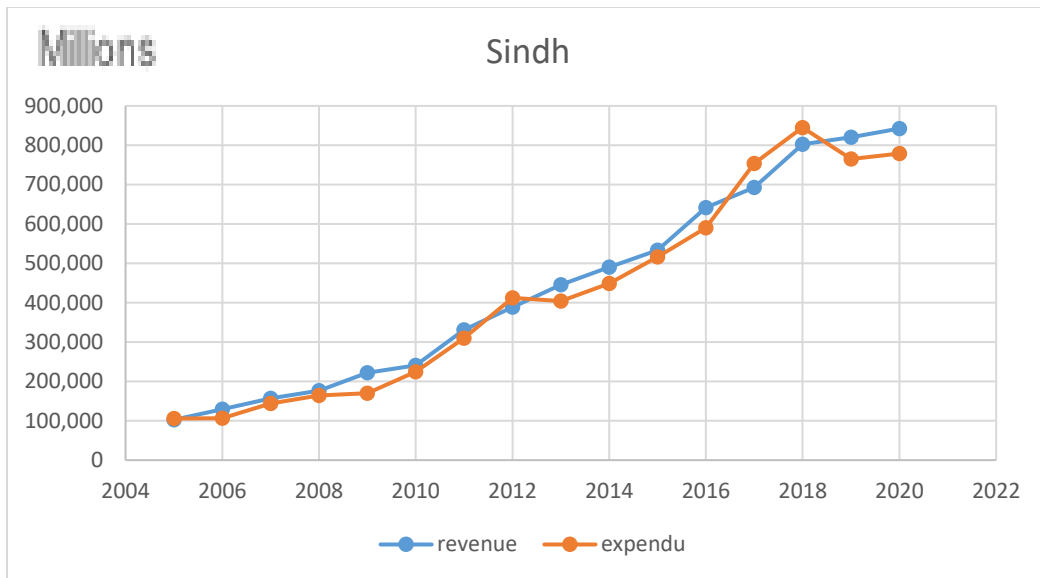
Figure 04; Sindh

Represent the Sindh expenditure side before the 18th Amendment and after the amendment. Figure show the after the Decentralization from the year 2010 the expenditure is increase orange line curve represent the expenditure while the blue line shows the revenue side, the line of revenue increase as well. Mean its indicate that after the decentralization from year 2010 the revenue and expenditure both are going upward direction. Figure 04 show that above.
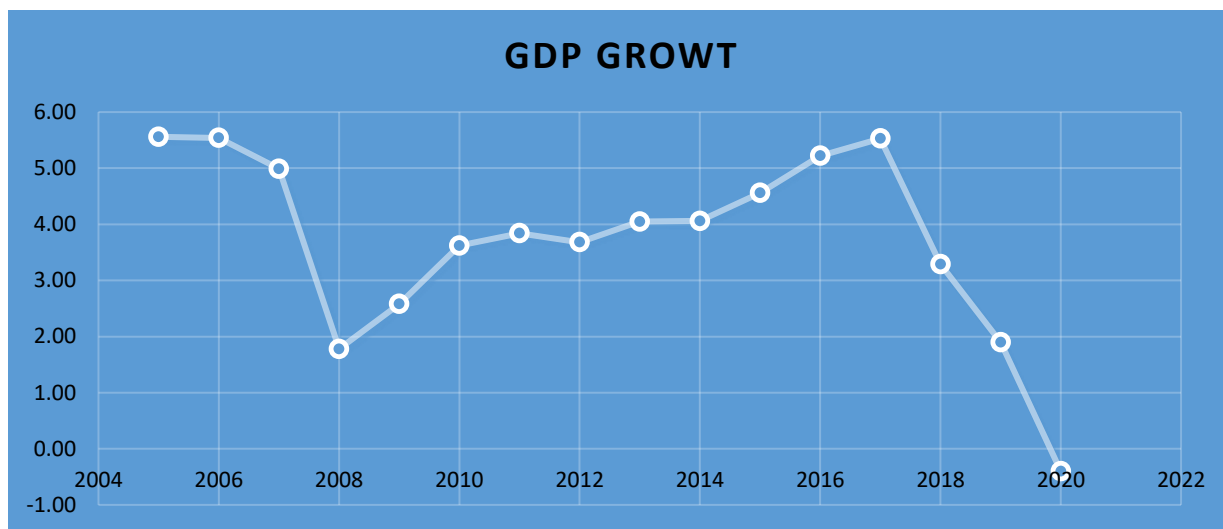
Figure 05: The GDP growth

The diagram above represents the overall GDP growth before and after the amendment. The purpose of this is to check the impact of percentages as GDP and its change, pre & post-devolution. The chart shows the vertical value Axis of the GDP in (million) while the horizontal (value) show the year from 2004-5 to 2020, figure shows that the GDP ratio is high before the decentralization the average growth between (5.5 percent) to 3.5% from the year 2004 to 2009, before the 18 amendments.

While after the devolution the GDP growth rate goes stable are goes upward which indicates a positive effect on growth and stability but that volatility shows the political instability in a country with affects the growth directly figure show that after the year 2018 growth rate declined. Cause of the newly elected government change and goes down till into the year 2021-22. Graph show that above.
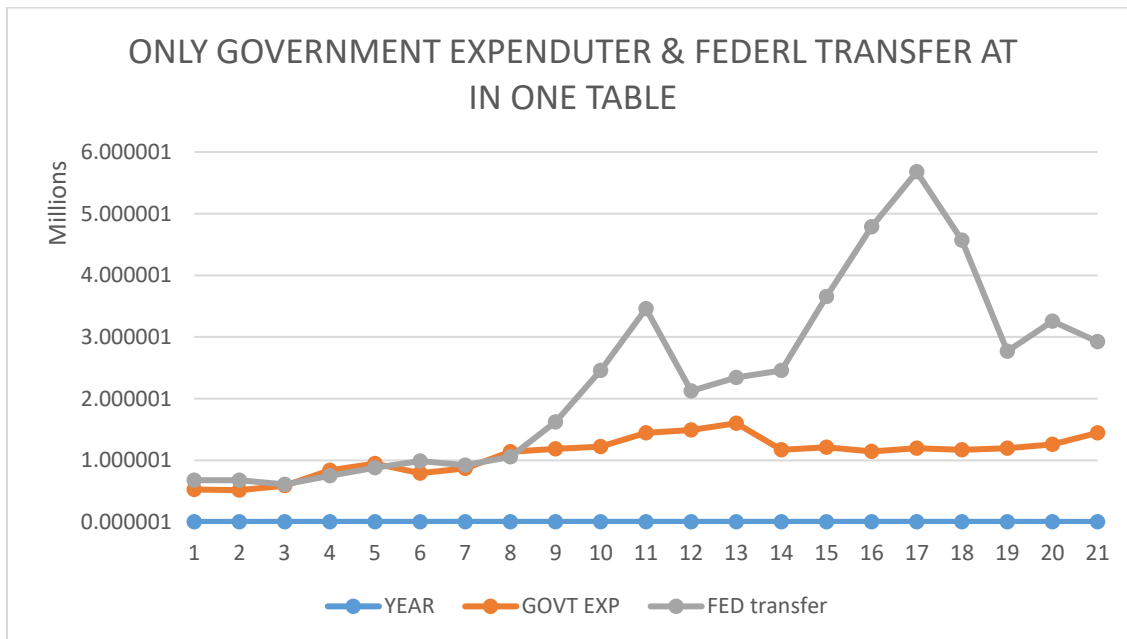
figure 06; Government Expenditure & Federal transfer

Graph represent the government expenditure and federal transfer the purpose is to check out the government expenditure and compare with federal transfer.

On x-axis there is a money expend in million while on the y-axis there is a year from 2001 to 2020. Yellow line shows the government expenditure other hand the blue line represents the year and grey line show the federal transfer.

Diagram show that before 18th amendment, in between 2000-1 to 2002 there is decline in the expenditure similarly in 2006 to 2007 while change in expenditure but after the amendment the sudden change of federal transfer goes high and more high from the year 2014 onward while the expenditure side goes in minor change not high then the federal transfer even ones but there an increase by as compared to the previous year and so on till to 2018.
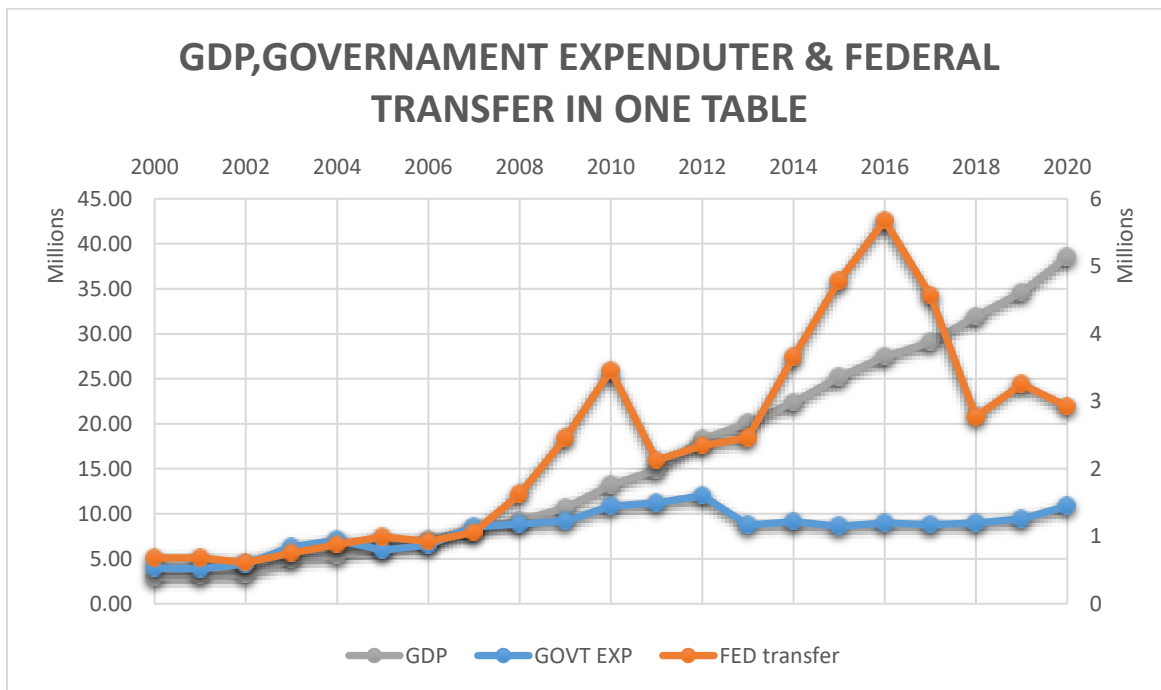
Figure 07; GDP government expenditure and transfer

This figure represents the GDP, Government Expenditure and Federal transfer of a government. Before and after the 18th Amendment (Decentralization) the data has been taken from the source State Bank of Pakistan. The purpose of this is to check the relationship between government expenditure and federal transfer and its impact on GDP.

The graph shows that the on x-axis there is an expenditure in million and on the y-axis are the years from 2000 to 2020 while the orange line shows the federal transfer, the blue line government expenditure, and the grey line shows the GDP ratio.

The graph shows that after the decentralization between 2010 to 2014 the federal transfer is constant while the expenditure goes down and the GDP percentage goes increases with time still into 2020. But in between, four years say 2013-to 2015 the sudden change into transfer decreased the expenditure, but have no impact on the GDP goes to increase. So then after the 18th amendment shows the GDP that the impact is positive but the gap between the expenditure and federal transfer is high from year 2013 to the year 2018 that impact is negative. While the GDP curve shows a constant upward graph showing that above. The NFC formula is constantly evolving with new distribution mechanisms getting more productive. A high province share will affect negatively the GDP and growth.

3.0 Data collection and variable used

TABLE 1

Variables Names, Definition, and Data sources

Variable	Name	Definition	Data sources
Economic Growth	Gap	Real GDP Growth	Stat bank , World Bank
Investment	In	Investment to GDP ratio	SBP,2020 W.D.I ,2020
Government Expenditures	Ge	Government current (expenditures to GDP ratio)	Pak Eco Survey
Trade openness	Open	(Exports + Imports) /GDP	SBP
Inflation **Labour force**	In Lf	Inflation Labour force Participation	Do Pak Eco Survey
Government revenue	Taxtgdp	Tax to GDP ratio	Pak Eco Survey
Provincial local revenue	Fdloc	Provincial tax non-tax revenue ratio	Do
Total provincial revenue	Fdtpr	Total provincial revenue ratio	SDB
Provincial tax revenue	Fdtax	Provincial tax revenue	Pak Eco Survey
Federal transfer	fdtrans	Federal transfer to provinces ratio	SBP

Source: Pakistan economics annual statistical survey
Note; fiscal decentralization measure was expressed as a ratio to government revenue

CHAPTER 03
RESEARCH METHODOLOGY

3.1Research Design

In order to analyse the impact of fiscal decentralization on economic growth of Pakistan, a descriptive and conclusive research design has to adopted using the framework of Devoid and Zou (1998). To address the aforementioned objective, the study uses secondary data from different sources such as Pakistan Economic Survey (various issues) and OECD for a period between 1980 and 2020.World Bank's World Development Indicators (WBWDI), State Bank of Pakistan (SBP), Besides, the variables used data properties and the estimation techniques for descriptive analysis are also discussed above. To do the study objectives, the data have to collected from different secondary sources. Based on the availability of information data for a series period between 1980 and 2020 will be extracted, time series data have to collect is used in the current study.

3.2 Theoretical linkage between fiscal decentralization and economic growth.

Economics growth of the economy to produce goods and services generally measures the rate of increase in GDP. Its influence the employment opportunities in the economy increase consumption of goods and services raise by the individual. If properly managed it may contribute to reduce the poverty education bring increase in social welfare in a sustainable way. Pakistan is an underdeveloped economy having not a remarkable growth rate. There may be many sources of economic growth but present study focuses on the fiscal decentralization as the major source of economic growth. Fiscal decentralization improves the efficiency of the Public sector and its leads to economic growth

Empirical results, that the impact of fiscal decentralization that positive growth can be strengthened with better quality of local public governance. Previous studies on the economics

growth and fiscal decentralization nexus are based on the theoretical ground in which fiscal decentralization may through indirect or direct affect economics growth such as consumer and producer efficiency, Davoodi and Zou (1998); Xin et al., 1999 macroeconomics stability Filippetti and Sacchi (2016) contend that the pro-growth effect of fiscal decentralization are dependent on regional authority with administrative and political decentralization. Such moderating effect should be investigated since fiscal decentralization is a multi dimensional phenomenon of various interrelations. The study concludes that the federal government should delegate the fiscal power to provincial and local governments for raising the growth and welfare of the people of Pakistan.

3.2.1 Theoretical model adopted;

The theoretical model developed by Davoodi and Zou (1998) provided a theoretical link between fiscal decentralization and economic growth. The given study extended the Barro (1990)

The fiscal decentralization economics growth most of study are based on the analytical framework proposed by Davoodi and Zou (1998) and Xie, Zou, and Davoodi (1999) the endogenous growth model assuming that the output is determined by the production function with two input, private capital (of federal and subnational government) and public expenditure.

Davioodi and Zou (1998) argued that spending by different tiers of government would have different effects on the overall economic growth. Their model explains that appropriate of public spending among given tiers can result in better economic growth; provided that prevailing spending pattern is different from the growth maximizing spending ratios. Davoodi and Zou (1998), along with Zhang and Zou (1998) and Xie et al. (1999), provided a theoretical base for the argument that channelizes the effects of fiscal decentralization on economic growth. Once the channel from fiscal decentralization to economic growth is explained, researchers, later on, tried different ways to accurately quantify fiscal decentralization. This led to the use of different

approaches for the quantification of fiscal decentralization, including the expenditure approach, revenue approach, this study, as explained earlier, used the revenue approach to measure fiscal decentralization.

The desired regression equation can be written as Equation 1:

GDP = α0 +α1FDit +α2 Control +εt……………. (1)

where GDPt indicates real gross domestic product growth rate. FDt presents fiscal decentralisation measures for Pakistan. As mentioned above, four different proxies are employed, in isolation, to correspond to different proxies of fiscal decentralisation, as indicated by 'i'. Here 't' refers to time. Furthermore, Contrlt variables like an investment, trade openness, inflation, labour force and tax to GDP ratio were considered during the estimation to get reliable results (Table 1). Lastly, εt represents the error term.

Implication of new Growth Theory.

According to the new growth theory the country having a great stock of human capital and investing more on development and research will execute faster growth. Government should invest in education and give subsidy it has spill over effect on the production of other people. The rate of return on capital is likely to be higher in developed countries as such the growth of per capital will be higher.

3.3 MODEL SPECIFICATION AND DATA COLLECTION

3.3.1 Data and Methodology

This section comprises the discussion regarding the basic economic model that relates fiscal decentralisation to economic growth. As well, the variables used data properties and the estimation

techniques for empirical analysis are also discussed below.

3.4 Methodology

In this section, we have to explain the methodology of estimating the impact of revenue and

expenditure decentralization. In case, when some variables are stationary at level and some

variables are stationary at first difference then we use an autoregressive distributed lag (ARDL

model. That model is used to examine the long-term and short run association between the taken

variables and it ignore the problem of endogenity.

The equation of ARDL model for Model 1, 2, 3 and 4 are used below:

3.4.1 Model 1:

$$\Delta RGDP_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i \Delta INV_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta TO_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta INF_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta LF_{t-i}$$

$$+ \sum_{i=1}^{m} \alpha_i \Delta FT_{t-i} + \beta_1 INV_{t-1} + \beta_2 TO_{t-1} + \beta_3 INF_{t-1} + \beta_4 LF_{t-1}$$

$$+ \beta_5 FD_{t-1} - \beta_6 ECT + \varepsilon_t \dots (3.1)$$

In equation 3.1 shows model 1 where, α_0 is the constant term, α_i is the coefficient of short term
variables while β_i is the coefficient of long-run variables and RGDP, INV, TO, INF, LF and FT
indicated real GDP, Investment, Trade Openness, Inflation, Labour Force, and Federal Transfer
respectively.

3.4.2 Model 2:

$$
\Delta RGDP_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i \Delta INV_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta TO_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta INF_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta LF_{t-i}
$$

$$
+ \sum_{i=1}^{m} \alpha_i \Delta PTTR_{t-i} + \beta_1 INV_{t-1} + \beta_2 TO_{t-1} + \beta_3 INF_{t-1} + \beta_4 LF_{t-1}
$$

$$
+ \beta_5 PTTR_{t-1} - \beta_6 ECT + \varepsilon_t \ \dots (\ 3.2\ )
$$

In equation 3.2 shows model 2 where, α_0 is the constant term, α_i is the coefficient of short term variables while βi is the coefficient of long-run variables and RGDP, INV, TO, INF, LF and PTTR indicated real GDP, Investment, Trade Openness, Inflation, Labour Force, and Total provincial revenues respectively.

3.4.3 Model 3:

$$
\Delta RGDP_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i \Delta INV_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta TO_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta INF_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta LF_{t-i}
$$

$$
+ \sum_{i=1}^{m} \alpha_i \Delta PLR_{t-i} + \beta_1 INV_{t-1} + \beta_2 TO_{t-1} + \beta_3 INF_{t-1} + \beta_4 LF_{t-1}
$$

$$
+ \beta_5 PLR_{t-1} - \beta_6 ECT + \varepsilon_t \ \dots (\ 3.3\ )
$$

In equation 3.3 shows Model 3 where α_0 is the constant term, α_i is the coefficient of short term variables while βi is the coefficient of long-run variables and RGDP, INV, TO, INF, LF and PLR indicated real GDP, Investment, Trade Openness, Inflation, Labour Force, and provincial local revenues respectively.

3.4.4 Model 4:

$$\Delta RGDP_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i \Delta INV_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta TO_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta INF_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta LF_{t-i}$$

$$+ \sum_{i=1}^{m} \alpha_i \Delta PTXR_{t-i} + \beta_1 INV_{t-1} + \beta_2 TO_{t-1} + \beta_3 INF_{t-1} + \beta_4 LF_{t-1}$$

$$+ \beta_5 PTXR_{t-1} - \beta_6 ECT + \varepsilon_t \ \ldots (3.4)$$

In equation 3.4 shows Model 4 where, α_0 is the constant term, α_i is the coefficient of short term variables while β_i is the coefficient of long-run variables and RGDP, INV, TO, INF, LF and PTXR indicated real GDP, Investment, Trade Openness, Inflation, Labour Force, and provincial Tax revenues respectively.

3.4.5 Model 5 is:

$$\Delta RGDP_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i \Delta INV_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta TO_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta INF_{t-i} + \sum_{i=1}^{m} \alpha_i \Delta LF_{t-i}$$

$$+ \sum_{i=1}^{m} \alpha_i \Delta GE_{t-i} + \beta_1 INV_{t-1} + \beta_2 TO_{t-1} + \beta_3 INF_{t-1} + \beta_4 LF_{t-1}$$

$$+ \beta_5 GE_{t-1} - \beta_6 ECT + \varepsilon_t \ \ldots (3.5)$$

In equation 3.5 shows Model 5 where, α_0 is the constant term, α_i is the coefficient of short term variables while β_i is the coefficient of long-run variables and RGDP, INV, TO, INF, LF and GE indicated real GDP, Investment, Trade Openness, Inflation, Labour Force, and Government Expenditures respectively. Model 5 is based on expenditures of the government and the Model1, 2, 3 and Model 4 are Revenue based.

3.5 Statistical Techniques

Initially descriptive statistics of the data have performed to test for the normality and skewness of the dataset alongside the mean and standard deviation. Afterwards, preliminary tests such as stationery test via (ADF) Augment Dicky fuller test have to used to test for a stationery of the dataset. Following stationery, Cointegration test unit root test via correlation analysis, Regression analysis Test should be used to test for the Cointegrating equations in the dataset at several levels of differences. Apparently, ARDL technique had employed to analyse the impact of both long run and short run both short of fiscal decentralization on Economics growth of Pakistan. And lastly, residual tests such as serial correlation test, heteroskedasticity test and normality test may be utilized to test for the auto correlation among the variables, data heterogeneity and normality problems of the data.

CHAPTER4
RESULTS AND DISCUSSION

4.1. Introduction

The current chapter presents the analysis of the study. The study aims to investigate the impact of Fiscal Decentralization on Economic Growth. This chapter presents the descriptive analysis that describes and summarizes the features of the data. Similarly, as series data from 1980-2020 is used in the current study; therefor unit root test is conducted to check whether variables are stationary or non-stationary. Augmented Dickey-Fuller (ADF) is conducted for testing the presence of the unit root in variables. Based on the results of ADF test, correlation analysis and least square method of regression analysis are conducted. Results of the analysis are presented in the below sections.

4.2. Descriptive analysis

Descriptive analysis is a significant step towards conducting statistical analysis of research (Saunders, Lewis, & Thornhill, 2009). The data distribution of the study is examined in the descriptive analysis of research. The dispersion and central tendency are analysed through examining the mean and standard deviation of the data. In this study, mean values, values of the standard deviation, minimum values and maximum values were determined. The results of descriptive analysis are presented in the below table.

Table4.1: Descriptive analysis

Variables	Variable type	Mean	SD	Minimum	Maximum	Jarque Bera stat.	Prob.
RGDP	Dependent	4.66	2.00	-0.40	8.71	0.67	0.72
PTXR	Independent	0.01	0.02	0.01	0.09	495.4	3.10
PLR	Independent	0.00	0.01	0.00	0.03	692.2	5.15 1
FT	Independent	0.15	0.11	0. 03	0.48	12.7	0.00 7
PTTR	Independent	0.017	0.02	0.01	0.10	388.2	5.08
GE	Control	0.07	0.05	0. 01	0. 16	3.26	0. 19
TO	Control	0.40	0.07	0.27	0.53	0.68	0.71
LF	Control	44.36	14.17	25.65	69.82	3.77	0.15
INF	Control	8.63	4.11	2.53	20.90	10.07	0.01

The above table is showing mean values, values of standard deviation, minimum values and maximum values of the dependent, independent and control variables of the study. The table shows that mean value for real GDP i.e., the dependent variable is 4.66, the value of standard deviation for this variable is 2.00%, minimum value of real GDP was measured as -0.40% while the maximum value for this variable was 8.71%. The findings of the real GDP in Pakistan is recorded as higher among the developing countries as lower GDP is recorded by studies like Cucari et al. (2018), in developing countries and Ehkioya et.al, (2021) in under developed countries. Most analysts currently consider that GDP growth of 2.5% to 3.5% per annum is the most that our economy can safeguard without adverse effects Hafsi and Turgut (2019).

The above table also shows the descriptive analysis for independent variables. The table shows that mean value for Provincial Tax Revenues i.e., the independent variable was 0.01%, the value of standard deviation for this variable was 0.02%, minimum value Provincial Tax Revenues was

measured as 0.01% while the maximum value for this variable was 0.09%. While the table shows that mean value for Provincial Local Revenue was 0.00%, the value of standard deviation for this variable was 0.01%, minimum value Provincial Local Revenues was measured as 0.00% while the maximum value for this variable was 0.03%. Similarly, it is shown in the table shows that mean value for Federal Transfers was 0.26%, the value of standard deviation for this variable was 0.12%, minimum value Federal Transfers was measured as 0.15% while the maximum value for this variable was 0.48% while the table shows that mean value for Total Provincial Revenues was 0.02%, the value of standard deviation for this variable was 0.02%, minimum value Total Provincial Revenues was measured as 0.01% while the maximum value for this variable was 0.20%.

The controlled variables were also examined. The table shows that mean value for Government Expenditures was 0.07%, the value of standard deviation for this variable was 0.04%, and minimum value Expenditures was measured as 0.01% while the maximum value for this variable was 0.16%. Similarly, the table shows that mean value for Trade Openness was 0.40%, the value of standard deviation for this variable was 0.07%, minimum value Trade Openness was measured as 0.27% while the maximum value for this variable was 0.53% Also, the table shows that mean value for Inflation was 8.63%, the value of standard deviation for this variable was 4.12%, minimum value Inflation was measured as 2.53% while the maximum value for this variable was 20.90%. Likewise, the table shows that mean value for Labour Force was 44.36%, the value of standard deviation for this variable was 14.12%, minimum value Labour Force was measured as 25.65% while the maximum value for this variable was 69.82%. Lastly, the table shows that mean value for Govt. Revenues was 0.10%, the value of standard deviation for this variable was 0.01%,

minimum value Labour Force was measured as 0.07% while the maximum value for this variable was 0.12%.

Additionally, in the descriptive statistics, Jarque bera test is used to test the distribution of data normality which indicates that all variables are normally distributed. The decision is made on the basis of the probability value of the Jarque Bera statistics which follows Chi Square. All the values of probability are greater than 0.05% which concludes that all variables are normally distributed. Provincial tax revenue is recorded as lower in comparison to findings of other research in case of other developing countries, as Brave (2018), reports mean value of Provincial tax revenue as 0.10 while Hanefah (2018) reported Provincial tax revenue for Bangladesh as 0.12% While the labour force mean value is measured higher in Pakistan as compared to other developing countries. The studies of Muttakin et al. (2020) examined Labour force value of 12.42% and Katmon (2019), measured Labour force value of 22.44%. While the Provincial Local Revenue and Federal Transfers values for the mean are inconsistent with the studies of Hafsa and Turgut (2019). Compared to the industrialized countries, the mean value of Total Provincial Revenues in Pakistan was as low. But for the Total provincial revenues in the emerging countries, the value in Ibrahim and Nanefah (2016) is also very comparable, as 0.042% and 0.022% for Bangladesh (Muttakin et al. 2015), as Barako and Brown (2018) stated 0.15 in Kenya.

4.3. Unit Root and Stationary Test

Unit root and stationary tests are conducted in statistics to examine the time series variables to know that whether the time series variables are non-stationary and thus possesses unit root or are stationary. In the unit root test, the null hypothesis defines presence of the unit root while the alternative hypothesis defines that variable is not stationary (Fedorová, 2016).

In this study, Augmented Dickey-Fuller (ADF) test (Dicky and Fuller, 1979) is conducted for the reason to test presence of the unit root in variables of the study (Hall, 1994). The null hypothesis for the ADF test was that "Ho: Series has unit root". The below tables show the results of the ADF test for the variables of the study.

Table 4.2: Augmented Dickey-Fuller (ADF) test

	At Level I(0)		At First Difference I(1)		
Variables	**t-statistics**	**Prob.**	**t-statistics**	**Prob.**	
RGDP	-3.490	0.01**			**I(0)**
PTXR	-3.72	0.00*			**I(0)**
PLR	-6.04	0.00*			**I(0)**
FT	-1.620	0.47	-5.35	0.00*	**I(1)**
GE	-1.14	0.69	-5.72	0.00*	**I(1)**
PTTR	-3.31	0.01**			**I(0)**
INV	-3.14	0.02**			**I(0)**
TO	-1.81	0.37	-6.08	0.00*	**I(1)**
INF	-4.39	0.00*			**I(0)**
LF	2.28	0.99	-4.91	0.00*	**I(1)**

Notes: *and** are indicated that the value is significant at 1% and 5% respectively.

In the above table Augmented Dickey fuller test is use to test the unit root problem in the data. ADF is a test that is used to test the problem of unit root. It is an important tool to check the unit root problem in the data and identified whether the data is stationary or not. In the above table indicated that Real GDP (RGDP), Provincial tax revenues (PTXR), Provincial local revenues (PLR), and Total provincial revenues (PTTR), Investment (INV) and Inflation (INF) are stationary

at level while Federal Transfers (FT), Trade openness (TO), Government Expenditures (GE) and Labour Force (LF) are stationary at 1st difference.

4.4. Correlation analysis

Before conducting regression analysis, correlation analysis was conducted to examine the relationship between the independent and dependent variables. The results of the correlation analysis are presented in the below table.

Table4.3. Correlation analysis

Variables	RGDP	INV	TO	INF	LF	FT	PTXR	PLR	PTTR	GE
RGDP	1.000									
INV	0.287	1.000								
TO	0.180	0.563	1.000							
INF	0.077	-0.143	-0.037	1.000						
LF	-0.488	-0.640	-0.782	-0.042	1.000					
FT	-0.313	-0.510	0.754	-0.66	0.830	1.000				
PTXR	-0.020	-0.330	-0.144	0.352	0.230	-0.242	1.000			
PLR	-0.045	-0.018	0.198	-0.187	0.050	-0.016	-0.139	1.000		
PTTR	-0.032	-0.335	-0.088	0.299	0.244	-0.246	0.961	0.141	1.000	
GE	-0.349	-0.613	0.754	-0.055	-0.812	-0.016	-0.139	-0.330	-0.144	1.000

Above table 4.3 is showing the values of the correlation efficient. The table shows the relationship between the independent and dependent variables of the study. The table shows that the value of correlation coefficient between Real GDP and provincial tax revenue is -0.020% showing a weak negative relationship between Real GDP and provincial tax revenue. Similarly, the value of the correlation coefficient between Real GDP and provincial local revenue is -0.045% showing a weak negative relationship between Real GDP and provincial local revenue. Similarly, the value of the

correlation coefficient between Real GDP and federal transfer is 0.329% showing a moderate positive relationship between Real GDP and federal transfer, while the value of the correlation coefficient between Real GDP and total provincial revenue is -0.032% showing a weak negative relationship between Real GDP and total provincial revenue. Concluding, the results of correlation analysis show that independent variables provincial local revenue, federal transfer and total provincial revenue are having a positive relationship with economic growth while the provincial tax revenue is having a negative relationship with economic growth.

4.5 Bound Test

Table 4.5 Bound test Results for model 1

F statistical = 5.88***		
Significance level	**Upper Bound**	**Lower Bound**
10%	3.35	2.26
5%	3.79	2.62
1%	4.68	3.41

Note: *** shows significance at 10 % level.

Table 4.5 revealed that the dependent and independent variables are cointegrated in the long term. In the 10% level of significance, 5.88% are larger than 3.35%, indicating that there is long term cointegration between the variables.

Table 4.6 Bound test Results for model 2

F statistical = 3.571***		
Significance level	**Upper Bound**	**Lower Bound**
10%	3.35	2.26
5%	3.79	2.62
1%	4.68	3.41

Note: *** shows significance at 10 % level.

Table 4.6 revealed that the dependent and independent variables are cointegrated in the long term. In the 10% level of significance, 3.571% are more than 3.35%, indicating that there is long term cointegration between the variables.

Table 4.7 Bound test Results for model 3

F statistical = 3.708***		
Significance level	**Upper Bound**	**Lower Bound**
10%	3.35	2.26
5%	3.79	2.62
1%	4.68	3.41

Note: *** shows significance at 10 % level.

Table 4.7 revealed that the dependent and independent variables are cointegrated in the long term. 3.70% are higher than 3.35%, indicating that there is long-term cointegration between the variables at a 10% level of significance.

Table 4.8 Bound test Results for model 4

F statistical = 3.676***		
Significance level	**Upper Bound**	**Lower Bound**
10%	3.35	2.26
5%	3.79	2.62
1%	4.68	3.41

Note: *** shows significance at 10 % level.

Table 4.8 revealed that the dependent and independent variables are Cointegrated in the long term. In a 10% level of significance, 3.676% is more than 3.35%, indicating that there is long term Cointegration between the variables.

Table 4.9 Bound test Results for model 5

F statistical = 8.59***		
Significance level	**Upper Bound**	**Lower Bound**
10%	3.35	2.26
5%	3.79	2.62
1%	4.68	3.41

Note: *** shows significance at 10 % level.

Table 4.9 indicated that the dependent and independent variables are Cointegrated in the long term. In a 1% level of significance, 8.59% are more than 4.68%, indicating that there is long term Cointegration between the variables.sss

4.6 Regression analysis

We utilize the ARDL model when certain variables are stationary at the level and some variables are stationary at the first difference. The ARDL model is used to look at the long-term and short-

term relationships between the variables in question while ignoring the issue of endogeneity. The findings of the ARDL model are shown in the table below:

Table 4.10: Regression Analysis for Model 1

Repressors	Coefficients	Std. Error	Prob.
Long run affect			
Constant	21.52	8.71	0.02
INV	-18.03	35.56	0.61
TO	-19.42	8.71	0.03
INF	-0.09	0.12	0.42
LF	-0.18	0.06	0.00
FT	7.02	6.08	0.25
Short run affect			
D(INV)	23.48	25.36	0.57
D(TO)	10.15	9.06	0.23
D(INF)	-0.04	0.08	0.50
D(LF)	-0.44	0.41	0.17
D(FT)	-3.10	6.21	0.80
ECT	-0.90	0.19	0.00

Table 4.10 shows the short and long run results of ARDL model for model 1 in which investment is negatively and significantly related with real GDP. . If there is one percent increase in 1 unit of investment is increases, then eighteen percent 18.03 real GDP will be decreases. Trade openness is negatively affected with real GDP but the relationship is insignificant. If there is one percent 1 unit increases in a trade openness will decrease real GDP by 19.42 percent units. Inflation is positively affected with real GPD. If there is one percent 1%-unit increase in inflation will lead to 0.09 percent increases in real GDP but insignificantly. Labor force is negatively and significant

effected with real GDP. If there is one percent 1unit increase in Labor force, then real GDP will decrease by 0.18 percent units. Federal Transfer is positively affected on real GDP. If Federal transfer is increase by 1percent unit then real GDP will increase by 7.02 percent units but insignificantly.

In the short run investment is positively but significantly effected real GDP. If 1percent unit of investment is increases, then 23.48 percent units real GDP will be increases. Trade openness is positively but insignificantly affected real GDP. If 1percent unit increases in a trade openness will decrease real GDP by 10.15 percent units. Inflation is negatively affected real GPD. If 1percent unit increase in inflation will lead to -0.04 percent units decrease in real GDP but insignificantly. Labor force is negatively but insignificantly effected real GDP. If there is 1 percent unit increase in Labor force, then real GDP will decrease by -0.44 percent units. Federal Transfer is negatively affected real GDP. If Federal transfer is increase by if there is 1 percent unit then real GDP will decrease by -3.10 percent units but insignificantly.

In our model, the ECT stands for Error Correction Term; it indicates cointegration and the adjustment of coefficients, which shows how much the model has been altered in prior periods in case of disequilibrium. The ECT coefficient has a value of -0.90% and is statistically significant. In the long term, this suggested that the model is dynamically stable.

Table 4.11: Regression Analysis for Model 2

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	15.50	8.73	0.87
INV	6.43	40.98	0.87
TO	-20.38	9.57	0.04
INF	0.04	0.14	0.97
LF	-0.13	0.04	0.01
PTXR	17.73	30.87	0.57
Short run			
D(INV)	13.11	26.70	0.62
D(TO)	12.08	9.21	0.20
D(INF)	-0.07	0.09	0.44
D(LF)	-0.44	0.46	0.34
D(PTXR)	-0.02	5.28	1.00
ECT	-0.86	0.20	0.00

Table 4.11 shows the short and long run results of ARDL model for model 2 in which investment is positively but insignificantly related with real GDP. If there is one percent 1 unit of investment is increases, then 6.43 percent real GDP will be increases. Trade openness is negatively affected with real GDP but the relationship is significant. If there is one percent 1% unit increases in a trade openness will decrease real GDP by - 20.38 percent units. Inflation is positively affected with real GPD. If there is one percent 1%-unit increase in inflation will lead to 0.04 percent increases in real GDP but insignificantly. Labor force is negatively and significant effected with real GDP. If there

is one percent I% unit increase in Labor force, then real GDP will decrease by -0.13 percent units. Provincial tax revenues are positive affected on real GDP. If Provincial tax revenues are increase by one percent 1% unit then real GDP will increase by 17.73 percent units but insignificantly.

In the short run investment is positively but insignificantly effected real GDP. If there is one percent 1% unit of investment is increases, then 13.11percent units real GDP will be increases. Trade openness is positively but insignificantly affected real GDP. If there is one percent 1% unit increases in a trade openness will decrease real GDP by 12.08 percent units. Inflation is negatively affected real GPD. If there is one percent 1%-unit increase in inflation will lead to -0.07 percent units decrease in real GDP but insignificantly. Labor force is negatively but insignificantly effected real GDP. If there is one percent I% unit increase in Labor force, then real GDP will decrease by -0.44 percent units. Provincial tax revenues are negatively affected on real GDP. If Provincial tax revenues are increase by one percent 1% unit then real GDP will decrease by -0.02 percent units but insignificantly.

In our model, the ECT stands for Error Correction Term; it indicates cointegration and the adjustment of coefficients, which shows how much the model has been altered in prior periods in case of disequilibrium. The ECT coefficient has a value of -0.86% and is statistically significant. In the long term, this suggested that the model is dynamically stable.

Table 4.12: Regression Analysis for Model 3

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	17.65	8.46	0.04
INV	-0.23	39.95	0.99
TO	-23.72	10.81	0.04
INF	0.03	0.13	0.81
LF	-0.14	0.05	0.01
PLR	94.56	113.86	0.41
Short run			
D(INV)	17.81	25.93	0.69
D(TO)	11.81	9.64	0.23
D(INF)	-0.05	0.09	0.52
D(LF)	-0.56	0.42	0.19
D(PLR)	-22.31	67.48	0.74
ECT	-0.86	0.20	0.00

Table 4.12 shows the short and long run results of ARDL model for model 3 in which investment is negatively but insignificantly related with real GDP. If there is one percent 1% unit of investment is increases, then -0.23% real GDP will be decrease. Trade openness is negatively affected with real GDP and the relationship is significant. If there is one percent 1% unit increases in a trade openness will increase real GDP by-23.72 percent units. Inflation is positively affected with real GPD. If there is one percent 1%unit increase in inflation will lead to 0.03 percent increases in real GDP but insignificantly. Labor force is negatively and significant effected with real GDP. If there is one percent I% unit increase in Labor force, then real GDP will decrease by 0.14 percent units. Provincial local revenues are positively affected on real GDP. If Provincial local revenues are increase by one percent 1% unit then real GDP will increase by 94.56 percent units but insignificantly.

In the short run investment is positively but insignificantly effected real GDP. If there is one percent 1% unit of investment is increases, then 17.81 percent units real GDP will be increases. Trade openness is positively but insignificantly affected real GDP. If there is one percent 1% unit increases in a trade openness will decrease real GDP by 11.81 percent units. Inflation is negatively affected real GPD. If there is one percent 1% unit increase in inflation will lead to 0.05percent units decrease in real GDP but insignificantly. Labor force is negatively but insignificantly effected real GDP. If there is one percent I% unit increase in Labor force, then real GDP will decrease by 0.56 percent units. Provincial local revenues are negatively affected on real GDP. If Provincial tax revenues are increase by one percent 1% unit then real GDP will decrease by 22.31 percent units but insignificantly.

In our model, the ECT stands for Error Correction Term; it indicates cointegration and the adjustment of coefficients, which shows how much the model has been altered in prior periods in case of disequilibrium. The ECT coefficient has a value of -0.86% and is statistically significant. In the long term, this suggested that the model is dynamically stable.

Table 4.13: Regression Analysis for Model 4

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	15.50	8.56	0.08
INV	10.30	40.27	0.80
TO	-21.60	9.73	0.03
INF	0.09	0.14	0.95
LF	-0.13	0.04	0.01
PTTR	22.91	29.01	0.44
Short run			
D(INV)	12.09	26.21	0.64
D(TO)	12.50	9.20	0.18
D(INF)	-0.09	0.09	0.40
D(LF)	-0.41	0.45	0.37
D(PTTR)	-2.42	22.82	0.91
ECT	-0.86	0.20	0.00

Table 4.13 shows the short and long run results of ARDL model for model 4 in which investment is negatively but insignificantly related with real GDP. If there is one percent1% unit of investment is increases, then 10.30 percent units real GDP will be decrease. Trade openness is negatively affected with real GDP and the relationship is significant. If there is one percent1% unit increases in a trade openness will decrease real GDP by 21.60 percent units. Inflation is positively affected with real GPD. If there is one percent 1% unit increase in inflation will lead to 0.09 percent increases in real GDP but insignificantly. Labor force is negatively and significant effected with real GDP. If there is one percent I% unit increase in Labor force, then real GDP will decrease by 0.13 percent units. Total provincial revenues are positively affected on real GDP. If Total

provincial revenues are increase by one percent1% unit then real GDP will increase by 22.91 percent units but insignificantly.

In the short run investment is positively but insignificantly effected real GDP. If 1% unit of investment is increases, then 12.09 percent units real GDP will be increases. Trade openness is positively but insignificantly affected real GDP. If there is one percent1% unit increases in a trade openness will decrease real GDP by 12.50 percent units. Inflation is negatively affected real GPD. If there is one percent1% unit increase in inflation will lead to 0.09 percent units decrease in real GDP but insignificantly. Labor force is negatively but insignificantly effected real GDP. If there is one percent I% unit increase in Labor force, then real GDP will decrease by 0.41percent units. Total provincial revenues are negatively affected on real GDP. If Provincial tax revenues are increase by 1% unit then real GDP will decrease by 2.42 percent units but insignificantly.

In our model, the ECT stands for Error Correction Term; it indicates cointegration and the adjustment of coefficients, which shows how much the model has been altered in prior periods in case of disequilibrium. The ECT coefficient has a value of -0.86% and is statistically significant. In the long term, this suggested that the model is dynamically stable.

Table 4.14: Regression Analysis for Model 5

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	19.91	9.27	0.04
INV	-5.94	36	0.8
TO	-20.1	8.93	0.03
INF	-0.09	0.12	0.4
LF	-0.12	0.04	0.00
GE	-35.67	41.70	0.40
Short run			
D(INV)	11.31	27.49	0.68
D(TO)	7.46	11.02	0.50
D(INF)	-0.05	0.12	0.69
D(LF)	-0.51	0.43	0.24
D(GE)	12.51	28.74	0.66
ECT	-1.11	0.15	0.00

Table 4.14 shows the short and long run results of ARDL model for model 5 in which investment is negative and insignificantly related with real GDP. . If there is one percent1 unit of investment is increases, then -5.94percent units real GDP will decrease. Trade openness is negatively affected with real GDP and the relationship is significant. If there is one percent 1% unit increases in a trade openness will decrease real GDP by -20.1percent units. Inflation is negatively affected with real GPD. If there is one percent1% unit increase in inflation will lead to -0.09 percent decreases in real GDP and the contribution is significant. Labor force is negatively and significant effected with real GDP. If there is one percent1% unit increase in Labor force, then real GDP will decrease by -0.12percent units. Government Expenditures have negatively affected on real GDP. If

Government expenditures increase by one percent 1% unit then real GDP will decrease by -35.67 percent units but the impact is insignificant.

In the short run investment is positively but insignificantly effected real GDP. If there is one percent 1% unit of investment is increases, then 11.31percent units real GDP will be increases. Trade openness is positively and significantly affected real GDP. If there is one percent 1% unit increases in a trade openness will increase real GDP by 7.49percent units. Inflation is negatively affected real GPD. If there is one percent 1%unit increase in inflation will lead to -0.05percent units decrease in real GDP but insignificantly. Labor force is negatively and significantly effected real GDP. If I% unit increase in Labor force, then real GDP will decrease by 0.51 percent units. Government Expenditures positively affected on real GDP. If Government Expenditures increase by one percent 1% unit then real GDP will decrease by 12.51percent units and the contribution is insignificant.

In our model, the ECT stands for Error Correction Term; it indicates cointegration and the adjustment of coefficients, which shows how much the model has been altered in prior periods in case of disequilibrium. The ECT coefficient has a value of -1.11% and is statistically significant. In the long term, this suggested that the model is dynamically stable.

4.7 Results of Diagnostic tests

Other diagnostic tests, such as autocorrelation, normality test, and heteroscedasticity, might be used to check the models computed outcomes' long-term viability. The study uses many tests for this aim, which are listed in table 4.15 under the heading Diagnostic Test Results. Initially, we determined that the out model is devoid of autocorrelation, which is supported by the Breusch-Godfrey probability value. When the probability value of the test is more than 5%, we infer that there is no serial correlation in the model, according to the Serial Correlation LM Test.

The findings of the Breusch-Pagan Godfrey Heteroscedasticity Test revealed whether or not there was a problem with heteroscedasticity. The results of the applied model indicated that our model is free of this problem, and the decision was made based on the results of the Breusch-Pagan Godfrey Heteroscedasticity Test, which has a probability value greater than 0.05, so its conclude that hetersocedasticity is absent.

Table 4.15: Results of Diagnostic Tests

Breusch-Godfrey Serial Correlation LM Test				
F Statistic	1.961693	Probability		0.1710
Obs*R Squared	2.599287	Probability. Square	Chi-	0.1069
Breusch-Pagan Godfrey Heteroscedasticity Test				
F Statistic	0.870224	Probability		0.5764
Obs*R Squared	10.11830	Probability. Square	Chi-	0.5198

CHAPTER 05

QUALITATIVE ANALYSIS

This chapter presents the analysis and findings of the data obtained from the in-depth interviews conducted with the respondents as part of the qualitative Research find the impact of fiscal decentralization on the growth and stability. The qualitative method used in the study is (face to face meeting) and in-depth interviews and discussions with the experts from planning commission, chief economist planning commission Islamabad, local government officers, and high professional economist, policy maker, and think tank specialist. Most of the interviews was conducted face-to face while the interviews are transcribed and analysed with their consent and keeping ethical concerns in front meeting is chosen by respondents. The duration of an interview was roundabout almost twenty to thirty minutes. The objectives of the interview study and the scope of the study were explained to each respondent before stating the meeting. The respondents respond to all question in details some of the interviews were recorded and some are transcribed manually. Then transcribed for the themes extraction process.

5.1 Table; Respondents profile

Designation	Data sources
Professor-PIDE University	Face to face meeting
Registrar-PIDE University	DO
Chief-Economist Planning Commission	DO
(PRO)VC-PIDE Islamabad	DO
Ex-Secretary-Planning commission kpk	DO
DG-Local Govt kpk	DO
Deputy-Economics adviser finance-ministry Islamabad	DO
Multi-Organization officer	DO

5.2 Qualitative Findings

Based on the interviews and discussion with the knowledgeable people, the finding of the qualitative study is as follow.

Analyses & Comments by Research

The respondent explained that decentralization is provided to the transfer of responsibility and duty of public abilities to Local Governments (LGs) from the central Government bodies. It is a complex thought, which does make substantial reorganization of public sector source transfer and finance in a direction to become effective. They reduce the local government revenue losses because they know the local culture, and local politics, but highly independent bodies will lead also to corruption in the local government for many reasons. While discussing the decentralization that has led to an increase in provincial revenue generation respondents shared that revenue concessions are provided either through revenue decentralization or informal growth. The provincial revenue has a positive impact on growth and stability but the informal economy including economics activates that are not included in the country's GDP. For all policymakers, it's a great concern because the informal economy can distort the allocations of resources can reduce the government tax revenue. Tax revenue decentralization pressures local government to increase tax collection the respondents argued that also rising tax burden encourages people and enterprises to invest and goes through the informal way. When the informal economy rises with tax evasion, tax revenue falls resulting in revenue decentralization and economic growth falling tax revenues. He further added that Pakistan became self-sufficient with quality output and also started to make local revenue that a positive impact on decentralization and macroeconomics stability but a negative impact on revenue decentralization so which indicates that expenditure is greater than revenue from the collection.

5.3 RESPONDENT

The opinion of the respondent regarding whether fiscal decentralization is beneficial or not for economic growth

In your opinion how is fiscal decentralization Which reforms lead to more FD either expenditures or tax both, also explain and identified the gap and issues in implementation, and the challenges that exist in implementation. In what way this system is functioning in Pakistan or how does it increase local revenue generation Also, explore the problem between FD transferring in government to see any issues with NFC Awards' current formula or HOW the fiscal decentralizations stop at the provincial level or there should be a local government in the system any other opinion.

The money given to provinces through the NFC award is known fiscal decentralization. (Registrar PIDE) informed that "*Fiscal decentralization is associated with independent provinces now getting their shares now independent they decide what they do with their shares but need to generate revenue as well as spend their own fund Fiscal decentralization*". While on the other hand (pro-vice chancellor, PIDE) "Even if they get the money, they have no income because all the money they get is transferred to them by the federal government, so there is no accountability. Even when we study it says that despite the money they get from fiscal decentralization to invest in their social sector they are not investing in it.*"*. So when we analyse the overall scenario we conclude that the expenditure decentralization has no impact on growth even if it's discouraging the growth. It's currently our overall issue because the payment federal gets from the interests it's not being covered by it. So it's not good for the growth but when and how can it cover all the damages done to it.

Cover it by focusing on the revenue decentralization if they generate their revenue and then decide on how to utilize those resources then it would be helpful. Now the problem is that first, the Provincial Finance Commission should be functional and effective in a system. And secondly, provinces should be encouraged to be revenue-generating governments. It will be more effective if both of them are properly decentralized.

Accordingly, as the respondent added provisions in the constitution we put forward that through "*fiscal decentralization this would be the amount they get. NFC award is our decentralization, so The federal is being forced to pay in any case what so ever or so in any case the federal has to pay* "economics adviser (finance commission) & (PIDE register). The main issues are a "*The governance system is not working governance is poor all the fiscal decentralization is getting the resources. Health is a provincial issue but they are not working properly they getting their own share from the central. where ever you see the issues in a system you have to improve the governance body*" for this fiscal decentralization to work. (pro-vice chancellor, PIDE), Registrar-PIDE) and almost the all respondent is strongly agreeing have the Governance issues that our country facing badly since from beginning.

To increase the revenue generation in province, or is fiscal decentralization is positive or negative impact in economics growth.

All the respondent has different through but having positive and says must needed the decentralization have to proper implement in the system, Fiscal decentralization is not possible with out a local government system with unfortunately not function in Pakistan. Why not Provinces haven't produce their own revenue funds, Karachi have a waster supply issues, municipal system not working these all thing through with we can produce the revenue in improve the public services delivery. (pro-vice chancellor, PIDE & Chief-Economist Planning Commission. We should also

focus on making the provincial "*finance commission effective secondly on behalf of revenue collection provinces should be incentivized, therefore decentralization can't be made effective as long as these two factors are not being focused on* (pro-vice chancellor, PIDE) Locker revenue emerges from agriculture so them should be properly managed All the services sector working within the provinces such as hotels, they should be taken into tax nuts. Just like Land Housing Societies, no tax is charged to them. We are not able to formalize land transactions which are also subject to taxation so there are many other problems. "The respondent gave an example from his research on driving licenses, 90% of our country's population drives but the number of people who have a driving license is less" (Chief Economist)

 Explore the fiscal decentralization transferring in government and also rise issues in NFC award formula.

"Centralization is not the solution rather its decentralization but it should be a proper decentralization, political back should be there. According to the correspondent, revenue should be a devolved subject and provinces should be responsible for it (Registrar-PIDE). While some of the respondent are agents the decentralization.

One of the main significant problem "One of the main significant problems "we face is a high population because they are the majority   And the majority is not a good indicator. Just as in Idrees Khowajas's study 'How can redesign and how much high should be of population, how much weight should development and revenue have, even government should add governance indicator in it some subjective indicators should also be added to it rather than adjective indicators. Provinces and federal should first get to the understanding of the 18 amendments and the bible if they believe in it then they should sincerely follow whatever it's been said in it. so that can reduce issues.

Half the ministries are devolved and half is given to provinces but they are still here fulfilling their jobs that's where the issue lies. So it's their capital and Human Resources that should be provided to them and the federal should cut the ties connected with them" (Iftakar Ahmad, Registrar-PIDE), pro-vice chancellor, PIDE & Chief-Economist Planning Commission) The Federal should have three maximum ministries that are the defence ministry, Foreign ministry, and finance ministry.

If we don't give them the power to the local government then what's the benefit (use) of local government. If we don't allow the local government the power, it requires then what's the benefit of local government. DG-Local Govt kpk, Registrar-PIDE).

Implementation:

"So through decentralization we (dissolved/ devolved/ demolished) many ministries as they are working in ministry federal, ministry province so to put them in place such are the circumstances. As there are different working ministries such as federal and provincial ministries, so to put them in one place they are being devolved. There should be a federal government in the Centre of each province and the governor in each province should be having a small cabinet of his own else it should be the local government's job to look after there's no need for a provincial government". (Registrar-PIDE*).*

I think unless there is no political stability in our country, our country won't prosper or move forward. but we need to ask about the perception of a strong governance system, and accountability in local government. As long as we demand clear roads and proper sewerage systems etc., from our represintitity, nothing can be done.

5.4; The respondents have respond regards the research problem and implementation.

In fiscal decentralization the revenue and expenditure did results, it has its pros and cons. Every country has its decentralization such as the union council has its charge and each ministry has its problems that lie within them. "*As one of the prominent problems lies within the authority of the revenue sector which collects multiple taxes, so the collection of tax compliance becomes difficult to be carried out for example tax compliance is on one of the district governments or maybe it's on tehsil government, so obviously if there's a factory there would be union council so it'll give to the tehsil, the district, the province then comes federal so it goes through a proper Chanel"*. (Chief economist planning commission) Even though it said that in the French devolution taxes were distributed among 37 agencies, they were responsible for the collection of taxes. So collecting tax is a simple task if it's done in one place so that it's defined by its place and doesn't get distributed. As after the 18th amendment provincial revenue authority came into being it collects from the revenue but it has its complications then because some taxes have their adjustments. For example, there is a cement company from Lakimarwat and its head office is located in Karachi now they're filing their taxes from there so the provincial government would be dealing with them. Just like that assume that one of the Faisalabad textile mills wants to pay for their refunds and they decided to visit Karachi and pay the provincial government so how are they going to adjust those taxes. As obviously now they're in another province and the factory is still located in Faisalabad so questions arise as to where are they going to pay the tax Over there or in Karachi and how are they going to deal with federal taxes Same as complications arise and are covered in expenditures. After the 18th amendment, our education expenditure is now provincial responsibility but the federal government and as well as provincial government expend on education. The federal government pays for HECs

scholarships, provinces are also spending on it, same goes for educational bodies. it gets complicated due to these factors as the federal government is paying for social products and provinces belong to them so in my opinion decentralization should be done it's a good thing but it should be carried out in a way that it doesn't affect the lives of others and lives should become easier. For economic growth the more the bodies appointed in each sector or a body appointed in multiple places the easier it gets and the more growth we experience. Now let's take the example of Pakistan, now that business reports are becoming stable there are now some indicators to keep up with that are how many working hours should tax compliance should work for. So the thing that comes into the spotlight is that All over South Asia Pakistan is the country that takes longer on tax compliance. Now that you have kept a limit for the system of tax compliance and the time taken is 5 to 8 hours so why not invest that time into other businesses that are a sign of a productive company.

There are positive impacts of "*fiscal decentralization as multiple taxes make compliance difficult and it'll in return report the taxes if we decentralize fiscal then we would need multiple indoor operational agencies and everything would be available under one roof so it's also a kind of model (new approach) for investments in the physical world which is important for country's growth*". (chief economist planning commission) the lesser entities will get to deal with the more it's welcoming. If the deal with a decentralization each district will get to have its authority and as a result will get to deal with its physical expenditures and revenue mobilization independently which is a good thing.

The problem lies within Pakistan, the lower the steer of government, the lower the district the more corrupt it gets. We can devolve such issues with accountability which have missed. what would be the accountability if we're abusing the powers with free will so then accountability does not lie in

such circumstances, there should be transparency in it to the lower step of the government that get more transparent it gets and lesser the excess to information it gets. Some of fiscal decentralization is that investments should not get hurt, revenues multiple histories shouldn't be a blockage, as they're the attorney body they'll work for their welfare. For example, the problems being faced by the province of one like kpk Charsada locals can't be experienced and solved by the locals of Islamabad. As it's difficult for the people of kpk Peshawar to deal with the problems faced by the people of D.I Khan. That's would a person dealing in Peshawar know about the downsides of D.I khan as he's in Peshawar not in D.I khan. The same is the case with fiscal and the autonomy of the local government as they are more important in that case because it's not focusing on its expenditures. Most of the times the case is that the federal government provides to the provinces but the province does not give it away further, even if the province gives it away to the districts it does not get to the union council.

The respondent said. Before taxes each share of means should be defined firstly that is how much of the means of taxes should be given to the union council, how much to the district and so on, they should be well defined. Khurram's agency should be distinct. Income tax should not be collected by every authority, could collect its means of share but through appropriate formula, as we have a well-defined formula for it in the NFC award. The formula is that When it the tax gets to the province it does not trickle down. So tax collection should have its agency and they should collect the money on behalf of all but the formula they use should be well defined, transparent and explicit. In this way, the money they need for the expenditures should get to them and does not stop. The assignments of their expenditures should also be well defined just like the federal government has asked for from the defence federal government then it should be carried out by the federal government. Then educational functions should be carried out by the local government,

provincial government, and federal government, because the national standards in education that are in the examination are looked after by the federal government. Even If the provinces unite in educational standards, the problem lies with educational curriculums because everyone has their own these are the issues within it.

Problems with implementation

Problems lie with the federal government, provinces, and districts, this is because we haven't deviated from the colonial system and our mentality is a barrier to all these implementations because it's colonial system have been established. There is also the issue of discretion, the discretion is that discretion is that if a person is a deputy commissioner and he gives a damn about anything does anything he wants so that's the discretion that lies within the area. There was no wealth out riot in it and then it stopped after reaching a certain stage as it was supposed to (leave behind or pass by) provinces and reach the districts but it didn't so that's the main reason behind its blockage, just like NFC award was supposed to be broader, devolution was also supposed to be broader. In that case, there were some assets built up by the federal government in provinces which they weren't willing to pay as in tourism there's PTDC, so in PTDC federal government was not willing to invest its assets in it, then questioned were Raised about who'll be paying for its liabilities, then in population federal government started to pay for it through vertical transfer and vowed to pay for 3 4 years but it's taking its responsibility up-till now. That's why our population is growing and is exponential growth so the population welfare suffered a lot due to some factors. And secondly, there was no clarity found in the roles played by provinces and federal on the issue of climate change.

Indicators for the growth of the economy

"One of the indicators of the productivity in economy is education. educated the workforce (sector) is the product it is. If the equality of education and literacy is low and has poor technical skills the less productive it is, so all these factors are required for growth. These are called the fundamentals of economic growth, that's the tendency that sustains the growth of a country". (chief economist planning commission, Deputy-Economics adviser finance & Registrar-PIDE) According to our model of growth, it's money that increases the tendency and increases the consumption which afterward results in non adjustments of such actions.

According to our model of growth, it's money that increases the tendency and increases the consumption which afterward results in non adjustments of such actions. So the problem with fundamentals of growth is that of non adjustments of money which results in queries of IMF that's because our fundamentals are not being built. Between 2002 and 2008 military government was empowered, during that time education and health indicators were on the top level after that when the authority was shifted from district to higher scale that's when problems once again started to recreate or take place.

We should rethink the state once again from the start. There are still some state functions performed by us that should not be looked after by the federal government. For example, it is looking after the energy which it shouldn't, rather it should be looked after by the market and regulated by the federal instead so that consumers aren't exploited. The same is the case with the roads, the roads built by KPK near Mardan are high cast but the traffic count is not so much, the same is the case with the roads between Faisalabad and Multan as now the motorway has been built. The same is the case with the school. Since schools built in Baluchistan have a high student-to-teacher ratio, the interest in building schools is part of the commission they receive, after which

the teachers are appointed and transferred to Quetta the next day. Because teachers are difficult. Searching in the public sector. That's how basic health units are established, as doctors prefer to live in cities, hence they are shifted to the cities, so all the functions of the state must be revisited so that one can know the degree and level of delivery of all services. In a system, we need a charter should be made.

Just like the way people glorify planning commissions the central command economy and plan the planning before putting it forth so the case is not the same now the world has evolved because of the increase in decentralization around the world which is not ridiculous at all, "*everything is done through wisdom and proper Chanel we won't come Along any country that is not decentralizing. Every country is decentralizing from centralization rather than centralizing from decentralization because decentralization is the future but there should be some limitations because now that the federal government is trying to coordinate, the provincial government is unwilling to compromise with it. For effective coordination mechanism and collaboration are important even then we could move forward so for effective mechanism and collaboration districts should be empowered, it doesn't simply mean to separate districts from provinces, just because the province didn't compromise with the federal government and now they're devolved so there should be one collaboration still present between them and that should be the mechanism present from the 18 amendments"*.(Chief Economist & PRO-VC PIDE) they further argue that unfortunately, we aren't able to create such institutions where coordination's are present and as for educational standards there isn't any such standard even present nationally, there isn't any curriculum even that could feed the standards. Even if a province provides with an FSCs degree after only teaching two subjects we aren't able to do anything about it, each board has its topic to debate upon, even within the province each one of them is concerned with it selves. So there should be a solid

standard just like Cambridge's examination standards. We're not progressing the reason is that we're poor in health and education so we should focus on building our performance and that won't be possible if we're not collaborating.

There is always negative fallout in every sector just as in 18 Amendments but that was a good swing but there were still some people that would say that it was a huge tragedy even bigger than the issue that arose in 71because they were fully aware of the consequences of uneven coordination among districts, provinces, and federal government. Where there is power there is abuse so the federal government also abused but the negative fallout was the result of devolution because people weren't ready to adopt the changes and there was no place for escape classes and no mechanism was kept in which better coordination could have been developed. When the amendments of the Soviet Union were established the commonwealth of independent states was also established so there for the second period of time the commonwealth establishes common rights for the defence of the state which were kept common and kind of charter was signed between them for particular roles and coordination just like Russia and the Soviet Union signed a deal for collaboration so when devolution happened after 18th amendment the provinces tried to set themselves free from it so for that reason mechanisms should be revised or else it'll result in disaster.

Suggestions

As we are still provided with "*the model made from 2002 to 2008 made by the district government in which districts were empowered in which the deliveries of social services were also stable and indicators were also in good shape so we should replicate those steps even now and move to districts, now same is the case in America, if we empower the districts it'll result in unimaginable consequences. At that time provinces were eliminated so responsibilities are supposed to be*

redefined and the distribution of functions and roles should be decided among districts. As for what roles are they going to play in educational fields and health departments, which dominant factor will be handled by which provincial government maybe the federal government does not exist in some areas so all these factors are supposed to be redefined through the existing formula which will be successful and it'll be a good step in terms of outcome" (CHIEF Economist planning commission).

The respondent can add that factors and indicators between 2002 and 2008 for health and education and a table should be made all the data should be collected and then since 2011 the stagnancy that is there all the suffrage faced by the population should be mentioned in it. So a comparison should be made between events that took place between 2008 and 2011 and how was it different in my opinion, I focus on social indicators and there were some faults within it.

Finding and Conclusion of Qualitative Research;

 To find the impact of fiscal decentralization on the growth and stability. The analysis and findings from the in-depth interviews conducted with the respondents as part of a study. That is observed that fiscal decentralization is impacting positively on growth and almost all the respondent strongly agrees to have decentralization is a must needed for our country the respondent says not cutting from centralization is decentralization but its needs proper implementation in the system, and local provinces must take responsibility to utilize their own resources and make the contribution in the region stronger and economical stable. For getting more revenue investment is needed in public finance to get mixed output from it like the most significant organization education skill education needed that impact positively, infrastructure, development project other economics activity. Using local resources with a proper strong administrated body to minimize the public expenditure and revenue gap. Decentralization of weak local democracy leads to the weakling of controls,

monitoring, and auditing by the central government and local government performance can not be rewarded. As argued above decentralization promotes economic growth, but corruption reduces it since the local government is deficient in transparency and in human capacity. We need a strong governance system.

CHAPTER 06
CONCLUSION

6.1 Conclusion

The main objective of this study is to analyse the impact of federal decentralization on economic growth. Where in the study GDP shows economic growth while Federal Transfer, Provincial tax revenues, Provincial local revenues, and Total provincial revenues indicated Federal Decentralization. Investment, inflation, trade openness and labour force are control variables.

Augmented Dickey fuller test is use to test the unit root problem in the data. ADF is a test that is used to test the problem of unit root. It is an important tool to check the unit root problem in the data and identified whether the data is stationary or not. GDP (RGDP), Provincial tax revenues (PTXR), Provincial local revenues (PLR), and Total provincial revenues (PTTR), Investment (INV) and Inflation (INF) are stationary at level while Federal Transfers (FT), Trade openness (TO) and Labour Force (LF) are stationary at 1st difference. On the basis of level of stationarity, study concluded that ARDL model will use for analysis because some variables are stationary at level while some are stationary at first difference. Bound test shows the long run cointegration between variables which indicated that there is long run cointegration between federal decentralization and economic growth.

In the models the results indicated federal transfer has positively but insignificant impact on GDP. Provincial tax revenue has negative but insignificant impact on GDP, Provincial local revenues has positive and insignificant impact on GDP and at last total provincial revenue has positive and insignificant impact on GDP in long run. This indicated that federal decentralization has positive impact on GDP in long run.

By using different measures for fiscal decentralization, this study of research tried to cover for the Thornton (2007) criticism for not differentiating between revenues accruing from own provincial sources and other sources. In addition, the revenue approach helped to identify the economic implications of alternative policies of fiscal decentralization. With the revenue approach, it was tried to avoid the criticism attached with studies using the expenditure approach for not discriminating between the expenditures made by SNGs indigenously and those mandated by national governments. Results were supportive of the fact that SNGs should be incentivized for own-source revenue generation, which will help in achieving higher economic growth. Moreover, in terms of economic output, the resource distribution formula for federal transfers should contain certain efficiency enhancing measures; otherwise, it can fail to have any long-run positive effects towards economic Growth. This study also provides important results for Pakistan and identified the areas for focus. Lower own tax revenue is an obstacle in achieving the true local fiscal autonomy and would restrict its benefits in Tiebout style. For the other important aspect of fiscal decentralization, i.e. federal transfers, it was observed that any further increase, without taking appropriate measures, will have negative effect on the economic growth in Pakistan. Similarly, the provincial revenues share of SNGs appears to have limited long-run effects under the given resource distribution mechanism. The second- generation theories of fiscal federalism, the original assumptions contained in decentralization theory might not be completely untrue as discussed in. Representatives from the sub-national level are relatively more accessible to local people as compared to national level representatives. local Politicians engaged at the sub-national level are more informed about local issues. They have comparatively frequent interaction with local people as compared to national-level politicians, doing national or regional politics. Hence, even if the certain assumptions are weak to hold in case of Pakistan, sub-national representatives are still more

accountable being locally accessible and even more importantly, being willing to get re-elected. The sub-national level are the issues that can influence outcomes of devolution in Pakistan. At this stage, it is also important to reflect upon the prevailing political realities in Pakistan. Issues like the level of benevolence, administrative capacity, corruption and leviathan government.

The Based on the interviews and discussion with the knowledgeable people, the finding of the qualitative study. Centralization is not the solution rather its decentralization but it should be a proper decentralization, political back should be there. According to the correspondent, revenue should be a devolved subject and provinces should be responsible for it. But local government more dependent on inter government grants when spending decentralization without revenue decentralization. Expenditure decentralization promotes economics growth but weak local democracy leads to the weaken of controls monitoring and auditing by central government reduce it. The presence of bad governance can reduce the beneficial effect of expenditure decentralization on economics growth by this channel. The analysis results indicated in short run federal transfer has negative and insignificant impact on GDP. Provincial tax revenue has negative but insignificant impact on GDP, Provincial local revenues has negative and insignificant impact on GDP and at last total provincial revenue has negative and insignificant impact on GDP in long run. This indicated that federal decentralization has negative impact on GDP in short run. In our model, the ECT stands for Error Correction Term; it indicates the coefficient of ECT is negative and statistically significant. In the long term, this concluded that the model is dynamically stable.

6.2 Policy Recommendation

1) Keeping in view decentralization is not a panacea' its has its advantages and disadvantages, the government must ensure better service delivery. The logic behind focusing on efficient service delivery is that decentralization provides a road map for service delivery by its design and making institutional arrangements.

2) Government should need focus on the development budget mean an addition to our productive capacity to create economic activity so the development budget increases the productive activity of the whole economy as a whole. Generally, the most growth-enhancing sectors are social sectors

3) Fiscal organization is very important for the achievement of balanced growth for all the area of the country its ensure equal opportunity for the people in different area of country.

4) Factors to impact whether decentralization develops the whether decentralization improves the efficacy of resource allocation, promotes cost recovery and accountability, to reduce the corruption in public services. That government need to make proper monitoring and evaluation system in a local organization.

5) Issues with the NFC award's current formula, must need some Improvement in revenue share governance indicate must be needed in the NFC award, more revenue provinces, will get more rewards, and shares will get distribution on an equity Base not on an equal basis.

6) Extending democracy to a grass root level which means local or representative democracy only decentralization can work best in a meaningful way. Indeed, decentralization ensures economically homogeneous societies and communities that can be regarded as the best form of devolution of power. To this end, it will ensure taxation from the grass root level which can create vertical externalities.

7) To create local independent democratic government is the most unrealistic form of decentralization, match jurisdictional design to collective lines and largely transfer expenditures rather than taxes (using formula-driven fiscal transfers and transparent).

8) Long postings in the same place government must needs to pay attention to the internal mobility of the staff that allow civil servants to develop corrupt relationships with clients.

References

(Ahmad 2020) the impact of fiscal decentralization on macroeconomics. Pakistan Journal of Applied Economics, Vol. 30 No. 1, (95-121), Summer 2020

Ahmad Najid. (2013). The Role of Budget Deficit in the Economic Growth of Pakistan. Global Journal of Management and Business Research, 13(B5), 1–4.

Arndt, C. (2008a), "The Politics of Governance Ratings", International Public Management Journal 11, 275–297

Bilin Neyapti. (2010) Fiscal decentralization and deficits international evidence vol. 26.

Banerjee, A., J. Dolado and R. Mestre, 1998, Error-correction mechanism tests for cointegration in a single-equation framework, Journal of Time Series Analysis, 19(3): 267-283.

Blais, et al. (2011) The genome of tetranychus urticae reveals herbivorous pest adaptations performance, governance and economics growth. Economics review 2020.

Brave, S, (2018). Diagnosing the financial system: financial conditions and financial stress. *29th issue of the International Journal of Central Banking*.

Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*. Oxford university press.

Brave, S. (2018). Diagnosing the financial system: financial conditions and financial stress. *29th issue of the International Journal of Central Banking*.

Crowther, D., & Lancaster, G. (2012). Economics, finance and business industry *Research methods*. Routledge.

Cucari, N., Esposito de Falco, S., & Orlando, B. (2018). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate Social Responsibility and Environmental Management*, *25*(3), 250-266.

Cucari, N., Esposito de Falco, S., & Orlando, B. (2018). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate Social Responsibility and Environmental Management*, *25*(3), 250-266.

Davoodi, Hamid and Heng-fu Zou (1998) Fiscal Decentralization and Economic Growth: A Cross-Country Study. Journal of Urban Economics, **43(2): 244-257.**

Ehikioya, L. U., Omankhanlen, A. E., Okoh, J. I., Adeleye, N. B., Ezeji, F. N., Ezu, G. K., & Ehikioya, B. I. (2021). Analyzing the energy consumption and economic growth nexus in Nigeria. *International Journal of Energy Economics and Policy*, *11*(1), 378.

Fedorová, D. (2016). Selection of unit root test on the basis of length of the time series and value of are (1) parameter. *Statistika*, *96*(3), 3.

Faridi, M. Z. (2011). Contribution of Fiscal Decentralization to Economic Growth: Evidence from Pakistan. *Pakistan Journal of Social Sciences (PJSS)*, *31*(1).

Fedorová, D. (2016). Selection of unit root test on the basis of length of the time series and value of are (1) parameter. *Statistika*, *96*(3), 3.

Government of Pakistan, G. o., 2009, Pakistan Economic Survey, Islamabad: Finance Division. Pesaran, M. H., 1997, The role of economic theory in modelling the long run, The Economic Journal, 107(440): 178-191.

Government of Pakistan, G.O.,2020, Pakistan Economics Survey, Islamabad; Finance Division.

Hall, A. (1994). Testing for a unit root in time series with pretest data-based model selection. *Journal of Business & Economic Statistics*, *12*(4), 461-470.

Hanefah, M. M. (2018). Financial and Non-Financial Disclosure Practices in Selected Awqaf Institutions. *International Journal of Nusantara Islam*, *6*(1), 52-72.

Hall, A. (1994). Testing for a unit root in time series with pretest data-based model selection. *Journal of Business & Economic Statistics*, *12*(4), 461-470.

Hanefah, M. M. (2018). Financial and Non-Financial Disclosure Practices in Selected Awqaf Institutions. *International Journal of Nusantara Islam*, *6*(1), 52-72.

Hanif & Gago (2017) Impact of fiscal decentralization on private savings in a developing country. Journal of south Asian

Ivanyna, M, and A. Shah, 2014, How close is your government to its people? Worldwide indicators on localization and decentralization, Economics: The Open Access, Open-Assessment E-Journal, Vol. 8. http://dx.doi.org/10.5018/ economics-ejournal.ja.2014-3

Kardar, Shahid (2006) Local Government Finance in Pakistan *Post 2001*. Lahore: Lahore School of Economics.

Katmon, N., (2019). Comprehensive board diversity and quality of corporate social responsibility disclosure: evidence from an emerging market. *Journal of business ethics*, *157*(2), 447-481.

Koethenbuerger, 2010) Do fiscal transfers alleviate business tax competition. Journal of public economics, 2010.

Koethenbuerger, M, & B. Lockwood, 2010, Does tax competition really promote growth? Journal of Economic Dynamics and Control, 34(2): 191-206.

Katmon, N., (2019). Comprehensive board diversity and quality of corporate social responsibility disclosure: evidence from an emerging market. *Journal of business ethics*, *157*(2), 447-481.

Von Hagen et al.,2000 and Roden et al, subnational government budget deficit targets in a monetary union; the Spanish case 1995-2

Lau, C. K. M. (2009). A more powerful panel unit root test with an application to PPP. *Applied Economics Letters*, *16*(1), 75-80.

Muttakin, M. B., Mihret, D., Lemma, T. T., & Khan, A. (2020). Integrated reporting, financial reporting quality and cost of debt. *International Journal of Accounting & Information Management*.

Naeem Rehman, I. A. (1989). Fiscal Decentralization in Pakistan. *Pakistan Development* Review Oates, W. (1999) An Essay on Fiscal Federalism. *Journal of Economic Literature* 37, 1120–1149.

Oates, & samuelsons, (2005) second generation theory of fiscal federalism, international tax and public finance of Pakistan. The Pakistan development review 2016-JSTOR

Pasha, A. Hafiz and Aisha (2000) Devolution and Fiscal Decentralisation. *The Pakistan Development Review* 39:4, 981–1011.

Rodden and Eskeland (2003), Hagen, et al. (2000) Evolving federations and regional public deficits. Planning c; Government and policy 2005.

Rodden (2002), The Dilemma of Fiscal Federalism: Grants and Fiscal Performance around the World Jonathan. American Journal of Political Science 46(3)

David A. Dickey & Wayne A. Fuller, Distribution of the Estimators for Autoregressive Time Vol. 74, No. 366 Series with a Unit Root. *Journal of the American Statistical Association* 74, 427–431.

S Shahzad, b Yasmin (2016) fiscal decentralization matter for poverty and income inequality in Pakistan.

SBP, 2020, Handbook of statistics on Pakistan Economy Karachi.

Shahnawaz Malik, (2006). Fiscal Decentralisation and Economic Growth in Pakistan. *Pakistan Development Review*

Saunders, M., Thornhill, & Lewis, (2009). Research methods for business students. Pearson education

Mesut Akdere et al…,2017 competition, market structure and market power in Antalya.

Shah, Anwar, "Decentralized Provision of Public Infrastructure and Corruption" (2014). ICEPP Working Papers. 14.
.

World Bank, 2010, World Development Indicators 2010 ©. Washington, DC: World Bank.

Yilmaz, & Robert.D. Ebel. (2002), On the measurement and impact of fiscal decentralization, Working Paper, Washington, DC: World Bank

Zhang, T., & Zou, H. F. (1998). Fiscal decentralization, public spending, and economic growth in China. *Journal of public economics*, *67*(2), 221-240.

Appendix A

Year	eco growth	Investment	govet expenditure	Trade Openness	Inflation	Labour force	T provincial revenues	f transfer / gdp	P tax R	P local R
1980	6.44	0.163091917	0.011513809	0.497966621	20.90450946	25.65	0.012052669	0.028772641	0.009207466	0.002845204
1981	7.56	0.171343226	0.012170705	0.431750918	7.158323731	26.27	0.014427983	0.035947882	0.011204756	0.003223228
1982	6.79	0.161053684	0.010886599	0.454402651	10.13296769	26.91	0.011916059	0.036164451	0.009148226	0.002767833
1983	3.97	0.171375488	0.013356823	0.432062661	6.138692667	27.45	0.011861463	0.037637543	0.009257802	0.002603661
1984	8.71	0.163081643	0.013243371	0.429812264	8.267046976	28.01	0.025516827	0.035973191	0.022769748	0.002747079
1985	6.36	0.161812702	0.015789261	0.397194392	11.93823091	28.05	0.011905613	0.056308251	0.008375377	0.003530236
1986	5.81	0.168162524	0.017668217	0.398869444	11.87991359	29.65	0.012360295	0.039257713	0.008425164	0.003935132
1987	6.44	0.168643741	0.021242466	0.436897997	5.903528784	29.93	0.011801015	0.081556424	0.008741925	0.003059091
1988	4.81	0.162188013	0.022141494	0.462827457	6.362033499	30.87	0.010922671	0.070323661	0.007830855	0.003091816
1989	4.59	0.158060137	0.023349484	0.444004862	6.087166736	31.15	0.009547091	0.075390294	0.006886402	0.002660689
1990	5.42	0.170069736	0.028074669	0.469626954	5.614839218	30.99	0.017900733	0.094082981	0.006923072	0.010977661
1991	7.57	0.159410027	0.027471041	0.533477112	3.506414248	31.94	0.018084148	0.089598536	0.008736563	0.009347585
1992	2.11	0.160020212	0.027604913	0.508021843	4.681218546	32.45	0.015436834	0.089193128	0.006800272	0.008636562
1993	4.37	0.182988068	0.032348912	0.457592242	8.837937018	33.29	0.014477217	0.104130648	0.007304158	0.007173059
1994	5.06	0.177769066	0.031461917	0.505843533	7.844264737	33.65	0.014002424	0.111916319	0.007377474	0.006624946
1995	6.64	0.163533095	0.030338081	0.520570699	9.052131553	34.43	0.014076577	0.117024377	0.007485087	0.006591489
1996	1.71	0.163215455	0.041998506	0.479595612	11.79127034	36.84	0.014088477	0.107232451	0.007481556	0.006606921
1997	3.49	0.165860894	0.052393846	0.429548438	9.509041462	38.64	0.013565874	0.110161707	0.007882847	0.005683027
1998	4.18	0.162505565	0.055830844	0.391087719	9.973664763	39.52	0.013286184	0.103159502	0.007744886	0.005541298
1999	3.91	0.161396811	0.064388022	0.403200411	12.36819439	40.45	0.011614636	0.111481398	0.007021066	0.004593569
2000	3.65	0.145323397	0.087113403	0.366280184	12.34357852	41.38	0.014416792	0.112239666	0.006500183	0.007916698
2001	2.37	0.108907849	0.082604311	0.406271133	10.37380859	43.21	0.006482022	0.108698532	0.005973626	0.000508394
2002	5.64	0.163640683	0.092024505	0.421285966	11.37549289	44.12	0.012919889	0.095246367	0.006754282	0.006165606
2003	7.77	0.147544058	0.124028713	0.325447831	6.228004154	45.76	0.011255045	0.110581577	0.006926297	0.004328785
2004	7.52	0.144420812	0.129986599	0.318007262	4.142637181	46.82	0.010627017	0.120635018	0.006458377	0.004168637
2005	5.56	0.143069779	0.102171894	0.369356637	4.366664513	50.55	0.013604729	0.127568021	0.005931919	0.007672809
2006	5.54	0.153711953	0.105827495	0.411393235	3.148261446	51.55	0.011510632	0.112358332	0.005138648	0.006371985
2007	4.99	0.171903116	0.132363349	0.371006042	3.290344726	53.22	0.014455902	0.122806752	0.004965093	0.009490808
2008	0.36	0.163181256	0.135141194	0.409796287	2.914134701	55.91	0.014055845	0.185380252	0.004987561	0.009068284
2009	2.58	0.154781769	0.135776982	0.397958332	7.444624693	56.92	0.005792002	0.272749424	0.005152771	0.000639232
2010	3.62	0.155813589	0.157945707	0.370206854	9.063327373	57.84	0.009612335	0.377696812	0.004890942	0.004721393
2011	3.84	0.128562401	0.158877149	0.404940043	7.921084401	59.33	0.039511479	0.225836456	0.007209863	0.032301616
2012	3.68	0.128738084	0.164527372	0.359826914	7.598684411	59.74	0.085098137	0.240669772	0.082470273	0.002627864
2013	4.05	0.135006178	0.114939086	0.372231811	20.28612109	60.12	0.098319906	0.241752535	0.094764323	0.003555583
2014	4.06	0.133033615	0.114100188	0.347431125	13.64776506	61.04	0.011398817	0.343595594	0.009194414	0.002204403
2015	4.56	0.134224394	0.102887817	0.301535095	12.93887056	62.41	0.014259239	0.429683536	0.011254924	0.003004314
2016	5.22	0.148250736	0.101814754	0.268117228	11.91609271	63.91	0.015125375	0.483014554	0.011725094	0.003400281
2017	5.53	0.142873155	0.094372362	0.283839771	9.682351861	65.55	0.016538625	0.368109584	0.013804411	0.002734214
2018	3.29	0.148926489	0.091013268	0.309527637	7.692156119	66.03	0.013608197	0.210801437	0.009012758	0.004595439
2019	1.94	0.150285944	0.094597623	0.329487094	7.189384028	67.51	0.010197069	0.245008051	0.008310798	0.001886271
2020	-0.45	0.133029015	0.109871887	0.306232728	11.52932817	69.82	0.010395434	0.222182348	0.008330634	0.002064796

Appendix B

Model 1

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	21.52	8.71	0.02
INV	-18.03	35.56	0.61
TO	-19.42	8.71	0.03
INF	-0.09	0.12	0.42
LF	-0.18	0.06	0.00
FT	7.02	6.08	0.25
Short run			
D(INV)	23.48	25.36	0.57
D(TO)	10.15	9.06	0.23
D(INF)	-0.04	0.08	0.50
D(LF)	-0.44	0.41	0.17
D(FT)	-3.10	6.21	0.80
ECT	-0.90	0.19	0.00

Model 2

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	15.50	8.73	0.87
INV	6.43	40.98	0.87
TO	-20.38	9.57	0.04
INF	0.04	0.14	0.97
LF	-0.13	0.04	0.01
PTXR	17.73	30.87	0.57
Short run			
D(INV)	13.11	26.70	0.62
D(TO)	12.08	9.21	0.20
D(INF)	-0.07	0.09	0.44
D(LF)	-0.44	0.46	0.34
D(PTXR)	-0.02	5.28	1.00
ECT	-0.86	0.20	0.00

Model 3

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	17.65	8.46	0.04
INV	-0.23	39.95	0.99
TO	-23.72	10.81	0.04
INF	0.03	0.13	0.81
LF	-0.14	0.05	0.01
PLR	94.56	113.86	0.41
Short run			
D(INV)	17.81	25.93	0.69
D(TO)	11.81	9.64	0.23
D(INF)	-0.05	0.09	0.52
D(LF)	-0.56	0.42	0.19
D(PLR)	-22.31	67.48	0.74
ECT	-0.86	0.20	0.00

Model 4

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	15.50	8.56	0.08
INV	10.30	40.27	0.80
TO	-21.60	9.73	0.03
INF	0.09	0.14	0.95
LF	-0.13	0.04	0.01
PTTR	22.91	29.01	0.44
Short run			
D(INV)	12.09	26.21	0.64
D(TO)	12.50	9.20	0.18
D(INF)	-0.09	0.09	0.40
D(LF)	-0.41	0.45	0.37
D(PTTR)	-2.42	22.82	0.91
ECT	-0.86	0.20	0.00

Model 5

Repressors	Coefficients	Std. Error	Prob.
Long run			
Constant	19.91	9.27	0.04
INV	-5.94	36	0.8
TO	-20.1	8.93	0.03
INF	-0.09	0.12	0.4
LF	-0.12	0.04	0.00
GE	-35.67	41.70	0.40
Short run			
D(INV)	11.31	27.49	0.68
D(TO)	7.46	11.02	0.50
D(INF)	-0.05	0.12	0.69
D(LF)	-0.51	0.43	0.24
D(GE)	12.51	28.74	0.66
ECT	-1.11	0.15	0.00

Appendix C

Dependent Variable: LREAL_GDP

Method: Least Squares

Date: 09/05/21   Time: 19:51

Sample: 1980 2020

Included observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.895736	3.246422	2.124104	0.0313
PROVINCIALOCALREV	41.39114	16.24762	2.547661	0.0023
PROVINCIAL_TAX_REVENUES	-18.61227	8.346791	-2.229872	0.0031
FEDERAL_TRANSFERS	47.37730	12.34672	3.837237	0.0017
TOTAL_PROVIN_REVENUES	14.74753	7.213464	2.044444	0.0044
TRADE_OPENNESS	-2.161507	0.924224	-2.338725	0.0025
LABOUR_FORCE	-1.344305	0.597937	-2.248239	0.0318
INFLATION	0.058664	0.026951	2.176691	0.0234
GOVT_REVENUES	12.08937	5.346451	2.261195	0.0029
GOVT_EXPENDITURES	1.021791	0.464349	2.200480	0.0033

R-squared	0.329325	Mean dependent var		1.458309
Adjusted R-squared	0.134613	S.D. dependent var		0.552674
S.E. of regression	0.051431	Akaike info criterion		2.715543
Sum squared resid	0.494257	Schwarz criterion		4.133488
Log likelihood	-25.16864	Hannan-Quinn criter.		4.867736
F-statistic	169.1342	Durbin-Watson stat		2.124675
Prob(F-statistic)	0.013380			