FISCAL DECENTRALIZATION IN PAKISTAN

Naeem Ur Rehman Khattak¹, Iftikhar Ahmad² and Jangraiz Khan³

ABSTRACT

Fiscal decentralization is considered as an important policy weapon to achieve economic efficiency and ensure effective governance through financial autonomy of provincial governments. It helps the smaller units of federation to take part in the economic development of country and provide opportunities to the central government to complete the national level tasks more efficiently. It is considered as an important growth enhancing measure. It empowers the lower level governments whether provincial or in some cases district governments through financial autonomy and administrative empowerment. In Pakistan, the resource distribution procedure has always been a hot topic of debate. The resource distribution criteria is often criticised by the majority of federal units on various grounds. The resource distribution is made through the National Finance Commission (NFC) Award in Pakistan. All the provinces are given their share according the NFC award and the provinces distribute it through the Provincial Finance Commission (PFC). The paper analyzed the fiscal resource sharing in Pakistan and investigated the effect of fiscal decentralization on the economic growth of Pakistan. Time series data for the period 1980-2007 was used for this purpose. The data will be analyzed by employing softwares EViews-6 and Stata-9. This results show that over the time, resource pool has expanded due to inclusion of few more taxes in the divisible pool and development in tax collection. The major criterion of population for resource distribution has caused friction among the provinces and resulted in deadlocks in the NFC awards. This study concluded that in past, the resource distribution mechanism of Pakistan failed to positively influence economic growth of the country in the long run. The study suggested that the criteria used for addressing horizontal resource distribution should be broadened by incorporating the criteria of tax collection efficiency, lag in infrastructure and area. Similarly, Administrative decentralization should be accompanied with the adequate fiscal decentralization and capacitating the provinces with the delegation of appropriate taxation powers. This may result in positive competition among the jurisdictions, ensure higher efficiency and supplement human capital to ultimately promote economic growth of the country.

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Introduction

Fiscal decentralization is considered as an important policy instrument to achieve economic efficiency and ensure effective governance through financial autonomy of provincial governments. It integrates the smaller units of federation and ensures their participation in the economic development of country while at the same time capacitate the central government to fulfil the national level tasks more efficiently and effectively. It is considered as an important growth accelerating measure. It empowers the lower level governments through financial autonomy and administrative empowerment.

Devolution helps the lower tiers of government to act as a powerful administrative agent of the central government. It helps units to be more innovative, responsible and efficient. Decentralization can be referred to in two different ways i.e. the revenue decentralization or expenditure delegation measures.

Decentralization policy is believed to positively affect economic growth because it helps in better implementation of social policies. The decentralized setup of the government doesn’t have any information barriers and lower level of government is better positioned to know the basic necessities and developmental needs of the people that are living in different regions of a country. Decentralization brings up the true potential of a locality with the efficient resource exploration and its efficient utilization. It furthers competition among the competing constituencies for better service provision which results in higher efficiency. This all has the potential to positively influence economic growth.

Fiscal decentralization can help in better targeting and can eliminate unnecessary engagements of the central governments. In the words of Bird and Smart (2002), “for services to be effectively provided, those receiving transfers need a clear mandate, adequate resources and sufficient flexibility to make decisions”. Decentralization is the process through which the responsibilities as well as resources from national to sub national governments are devolved (Rondinelli, 1981). Thus, by decentralization, central government empower the sub national governments in such a manner that can help in

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4 In this discussion the provincial, states and sub national level of governments will be used interchangeably.
better use of resources, improve public living standards and at the same time to share the work load (Gordin, 2004). Nevertheless from financial point of view, decentralization may pose danger if it is weakly designed so that provinces are able to externalize their costs to others (Rodden et al, 2002; Von Hagen et al. 2000).

Pakistan is federal country with a centralized taxation system. The federal government collects bulk of resources and then redistributes it among the federal and constituent parts to correct both vertical and horizontal fiscal imbalances. In Pakistan, the system of fiscal resource distribution is guarded by law and an autonomous body i.e. National Finance Commission (NFC) is constituted by law, after every five years time, to ensure transparent and judicious resource distribution. However, at times different problems interrupted the mechanism and current fiscal resource distribution didn’t prove up to the mark. Deadlocks were experienced at times and hence NFC failed to deliver undisputed awards to settle vertical and horizontal resource gaps.

The Present study aims to identify the strengths and weaknesses of the current fiscal resource distribution system in Pakistan, through the compilation of its historical trends. Proper information regarding the prevailing resource distribution system is believed to result in better policy formulation and thus would ultimately help the country to catch the development path faster. In this connection, it is also necessary to analyse the effects of current resource distribution policies on the economic growth of the country. Thus the study helps in identifying the degree of financial autonomy of the sub national governments and quantifies its long run returns.

**Literature Review**

Importance of the relationship between fiscal decentralization and economic growth is depicted by the amount of literature available on this topic. Extensive material is found expressing various important relationships. However, differing results were obtained at the estimation stage when this relationship was empirically tested. Varying results are found for both the developed and developing economies. Even in the case of Pakistan, studies still has to find clear relationship between fiscal decentralization and economic growth.
Davoodi and Zou (1998) developed a theoretical model for explaining the relationship between fiscal decentralization and economic growth. For empirical testing, they have used time averaged panel data for 46 countries from 1970 to 1989. In the case of developing countries a negative association is found between fiscal decentralization and economic growth.

Zhang and Zou (1998) used the China’s provincial panel data for year 1978-92 and found that there is a negative relationship between the degree of fiscal decentralization and provincial economic growth.

Phillips and Woller (1997) studied the relationship between economic growth and fiscal decentralization for the sample of seventeen developed countries and twenty three less developed countries for the period from 1974 to 1991. For the developed countries they found weakly significant, negative relationship between revenue decentralization and economic growth. However they fail to prove any relationship between the two variables in the case of less developed countries.

Xie, Zou and Davoodi (1999) found a highly insignificant relationship between fiscal decentralization and economic growth for the United States. However the authors argued that this might be due to the fact that the country has already achieved an optimal level of fiscal decentralization and thus further decentralization may not be possible.

Thieben (2001) used the OECD countries cross sectional data for the period from 1975-95. He analyzed the benefits and short comings of fiscal decentralization for these countries. The study could not found any relationship between economic growth of the OECD countries and the degree of revenue decentralization of the sub-national governments.

Contrary to the above stated review, Lin and Liu (2000) concluded that fiscal decentralization has made positive effects on provincial economic growth in the case of China. They used the provincial panel data of twenty eight provinces of China for the period from 1970 to 1993. The authors observed that fiscal reforms played an important role in the impressive growth of China.

Another interesting observation was made by Mello and Barenstein (2001) which used the cross country data for 78 countries for 1980-92. The study concluded that as the
share of non-tax revenues, grants and federal transfer increases in the total sub-national revenues, the association between decentralization and governance becomes stronger.

**Resource Distribution System in Pakistan**

Pakistan has a federal system. It is a country with strong federal government. Currently there are three levels of government working in Pakistan i.e. the federal, provincial and the local (district) level governments. Due to the efficiency and distributional issues, the resource sharing mechanism always remained under debate.

According to Jaffery and Sadaqat (2006), the systematic resource transfers take place at four stages. At the first stage the National Finance Commission (NFC) awards decides the revenue distribution between the federal and provincial governments. At the second stage, Provincial Finance Commission (PFC) delegate resources from provincial to local levels. Following this as a third stage transfers are made from federal to local levels and finally the vertical resource sharing occurs at local levels i.e. from District Government to Tehsil Municipal Administration. On the contrary, the random transfers take the shape of special grants, discretionary funds for executives, the parliamentarian development funds and like wise.

Without complete knowledge of the history of resource distribution, it is hard to identify true causes of failure of resource distribution mechanism. This section summarizes all the awards presented during the course of time after independence. The over time development is then discussed on the basis of historical analysis (Ahmed et al, 2007).

**Niemeyer Award**

Under the 1935 Act of United India, the Niemeyer Award was being followed for resource distribution between the centre and provinces. According to this award, an important tax i.e. sales tax was levied and collected by the provincial governments. In the case of income tax, 50 percent of the total collection was reallocated to the provinces. After 1947, when Pakistan came into being, the same arrangements were followed till March 1952, although some adjustments were made in railway budget and sharing of income and sales tax (Government of Pakistan, 1991).

**Raisman Award**
The Raisman award was presented in December, 1947 (Government of Pakistan, 1991). The Raisman award made special arrangements to cover the poor financial position of the federal government. Fifty percent of sales tax was allocated to the federal government as an ad hoc measure. Provinces were allocated 50 percent of income tax, out of which 45 percent was allocated to East Pakistan while the rest was divided among the provinces of Punjab, Sindh, NWFP, Bhawalpur, Khairpur, Balochistan states union and residual as 27, 12, 8, 4, 0.6, 0.6, and 2.8 percent, respectively (Government of Pakistan, 1991).

Revenue Sharing Under One Unit
During the implementation period of Raisman award, in year 1955, all the four provinces of West Pakistan were merged and declared one unit. Hence, after 1955 the whole country was declared two identities only i.e. East Pakistan and West Pakistan. During the era of One Unit, two awards were announced i.e. of year 1961 and 1965.

National Finance Committee 1970
In April 1970, for the first time a committee (instead of a commission) was designated to work under the federal finance minister and give recommendations for amicable Intergovernmental resource allocation. The resource pool was reshuffled. The committee recommended that vertical resource distribution between federal and provincial governments should be 20:80 percent, respectively. Once again, 30 percent of the allotted sales tax was redistributed among the provinces according to the collection from the respective areas.

Financial Arrangements in 1973 Constitution
In 1973, the new constitution of Pakistan was agreed upon by the National Assembly and implemented. In the new constitution, special arrangements were made to make the resource distribution mechanism smooth and acceptable. According to the 1973 constitution, it was obligated upon the federal government to constitute the NFC after each five years time. The finance commission was designated to suggest and review the resource distribution mechanism in Pakistan. Hence with the new statutes, an effort was made to ensure an amicable resource distribution.

The 1st NFC Award 1974

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5 The states which were believed to join Pakistan later after independence.
The first NFC was established under the new constitution in 1974. Under this commission the DP consisted of only sales tax, income tax and export duty on cotton. Population was adopted as only criterion for horizontal resource distribution among the provinces. The vertical resource distribution remained as of the previous award. With the adoption of population as the single criterion for resource distribution, the provincial share of Punjab increased to 60.25 percent of the total provincial share. Thus with the non diversification of formula, the smaller provinces were affected negatively.

**The 2nd NFC Award 1979**

Following the 1974 award, the 2nd NFC award was set up by the government of President General Zia-ul-Haq, in 1979. Hence the revised resource shares for the provinces announced under the 1979 NFC award are presented at Table 3.3.

<table>
<thead>
<tr>
<th>Table 3.3: Provincial Share 1979 Award</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>Sindh</td>
</tr>
<tr>
<td>57.97</td>
<td>23.34</td>
</tr>
</tbody>
</table>

Source: Government of Pakistan, 2006 (b)

**The 3rd NFC Award 1985**

This NFC remained unable to recommend any improvement in distribution mechanism. The resources continued to be distributed in the light of the 1974 NFC award with the amended provincial population.

**The 4th NFC Award 1991**

The fourth NFC award was formed in 1990 by the democratic government of Mr. Nawaz Sharif. The commission finalized its recommendations in April, 1991. This award was considered an important achievement because it achieved success after a gap of almost 16 years. This award came up with a number of positive recommendations. Most importantly the resource pool was expanded with the inclusion of more taxes in the DP. Thus, according to the 1991 NFC award, the horizontal resource share of the provinces registered a growth of 17 percentage points (i.e. increase from 28 percent to 45 percent of federal tax revenues), (Ghaus and Pasha, 1994). The resources were allocated among the provinces in accordance with their population size, which is presented at Table 3.4.
The 5th NFC Award 1997

This NFC award was announced in second month of 1997. The DP was further expanded with the inclusion of all taxes and duties. It now comprised of sales tax, income tax, wealth tax, capital value tax, custom duties, export duties, excise duties (other than duty on gas that is charged at wellhead), and all other taxes that were levied or collected by federal government at that time. Similarly, royalties on crude oil and net development surcharges on natural gas were extended to the provinces in the shape of straight transfers. In addition, this commission also announced the incentive of matching grants\(^6\) to the provinces (Government of Pakistan, 1997).

The 6th NFC Award 2000

Despite having problems at the implementation stage, the two NFC awards of 1991 and 1997 remained successful in bringing improvements in the resource distribution mechanism. The 6th NFC for year 2000 was constituted by General Pervez Musharraf, the then President of Pakistan. The centre was insisting 45% out of DP but the provinces were demanding 50% of share. It completed its tenure without any success.

The 7th NFC Award 2006

After the unproductive ending of the 6th NFC, new commission was nominated on 21st July, 2005. Nevertheless, the deadlock still prevailed among the stake holders. The commission faced difficulties in achieving consensus for amicable resource distribution mechanism. Therefore, as a last option, under the Article 160(6) of the 1973 constitution of Islamic Republic of Pakistan, all the chief ministers of the provinces vested the authority to the President for declaring an acceptable and justified fiscal resource sharing formula. Hence, the President General Pervez Musharraf amended the “Distribution of Revenues and Grants-in-Aid Order, 1997” by issuing Ordinance No. 1 of 2006. Thus finally after a delay of six years, the resource distribution mechanism of 1997 was

\[^6\] Provided that they exceed the target of 14.2 percent growth in revenue generation

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### Table 3.4: Provincial Share-1991 Award

<table>
<thead>
<tr>
<th>Province</th>
<th>(percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>57.88</td>
</tr>
<tr>
<td>Sindh</td>
<td>23.28</td>
</tr>
<tr>
<td>NWFP</td>
<td>13.54</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>5.30</td>
</tr>
</tbody>
</table>

Source: Government of Pakistan, 1991
amended on 1st July, 2006 (Government of Pakistan, 2006, a). Considering the provinces demands, the provincial share was increased against the federal and they were given gradual increase in their shares.

In Short, History of NFC indicates that the resource distribution in Pakistan by and large has been unsuccessful. It has both the shades of failure as well as certain achievements. On its positive achievements, NFC has a best system to ensure amicable resource distribution as it takes all the decision makers on board and decides over resource distribution with their consent. In addition, with the passage of time more financial autonomy was delegated to the provinces and there is more realization of fiscal decentralization especially in past two NFC awards of 1997 and 2006. Onwards from 1991 NFC award, resource allocation for the provinces increased either due to inclusion of taxes in the DP or due to the higher provincial share against that of federal. In addition, increased grants and straight transfers are channelized to the provinces now. Similarly, the incentive of matching grants motivated the provinces, inviting them to enhance efficiency, have their own resource generation and obtain financial autonomy (Ahmed et al, 2007).

However, on its negative side, NFC has experienced various deadlocks too, mainly due to the non agreement among the provinces. In a political economy like Pakistan, all the provinces have differing characteristics and offers different economic opportunities to its people. Varying interests of the provinces weakened their bargaining power. Over the time, provinces have demanded for inclusion of different criteria in the resource distribution formula. For example, Sindh has emphasised on the revenue generation criteria, NWFP demanded for backwardness, Balochistan advocated for area while Punjab insisted for taking the agriculture produce as a criteria to be considered while distributing the resources. Thus due to the failure in bargain and absence of consensus, provinces retreat to the adoption of a single criterion, which is sub optimal. The institutional set up of NFC has failed in amicably progressing and tackling the problem of fiscal decentralization. Lack of consensus had given way to interim awards & grants which ultimately has benefited the larger province.

Data and Methodology

Data.
In order to estimate the relationship between fiscal decentralization and economic growth, data from the secondary sources is used. Economic growth of the country is used as the dependent variable in this study. Per capita real gross domestic product (GDP) is used as a measure of economic growth. This variable is rebased by the year 2000 market prices. Variable is expressed in real term using GDP deflator (based on year 2000) to reflect the actual behaviour of economic growth over time. The data for this variable has been taken from Economic Surveys of Pakistan and Word Development Indicators.

In this study, decentralization is measured using the revenue approach. The same measure had been used by Lars et al, 2004 as an indicator of fiscal autonomy of the sub-national government. Thus, any increase in the revenue\(^7\) of the sub-national government level would indicate the higher degree of fiscal decentralization.

In this study, revenue assignments of the provincial government are captured using two variables. The first variable is a ratio of provincial tax revenue to federal tax revenue. This would reflect the relative taxation power of the provincial governments and would show fiscal autonomy of the provinces. Similarly, the second measure used for reflecting fiscal decentralization is ‘federal transfers to provinces’. Moreover, to know the incremental increase and actual behaviour of federal transfers to provinces, the same variable is taken as the percentage of GDP. Thus, these two measures of fiscal decentralization would represent the incremental improvement (or deterioration) of the decentralization level. Data for these variables has been taken from various issues of Pakistan Economic Surveys, “10 Years in Pakistan Statistics (1983)” as well as from “Handbook of Statistics on Pakistan Economy (2005)”.

Investment is captured by the Gross Fixed Capital Formation (GFCF) and data for various years was taken from Pakistan Economic Survey. In addition to investment, a measure for trade openness is used in the regression. This variable is defined by adding imports and exports and dividing it by GDP (at market prices). Imports and exports data has been taken from various issues of Economic Survey of Pakistan

\(^7\) Either through its own sources or through federal transfers (both decided through NFC awards)
Therefore, the last variable included in the model is human capital. This variable is expressed by the human development index. The variable is taken from UNDP Human Development Report, 2007.

**Regression Model**

For this study, the theoretical model of Davoodi and Zou (1998) is followed. It is the most explicit and well elaborated model encompassing the influence of fiscal decentralization upon economic growth. They have extended the endogenous growth model of Barro (1990) which states that production function has two inputs i.e. capital and public spending. Keeping in view the Pakistan’s situation, it is assumed that over the time, public spending is done by the two tiers of government i.e. federal and provincial.

Considering all the relevant variables of economic growth, final regression equation which would explain the relationship between economic growth and fiscal decentralization, takes the following shape:

\[
LPCGDP = B_0 + \beta_1 STFTR + \beta_2 RFTRANS + \beta_3 \log OPEN + \beta_4 TAXTGD \n\]

\[
+ \beta_5 RGFCF + \beta_6 HDI + \epsilon_i
\]

Where
- \(LPCGDP\) = Log Real Per Capita Gross Domestic Product (GDP)
- \(STFTR\) = Sub-national Government’s Revenue as a ratio of Federal Government Revenue
- \(RFTRANS\) = Federal Transfers to the Provinces (as a percentage of GDP)
- \(OPEN\) = Trade Openness
- \(TAXTGD\) = Tax to GDP ratio
- \(RGFCF\) = Gross Fixed Capital Formation (as a percentage of GDP)
- \(HDI\) = Human Development Index

4.4.2 **Econometric technique:**

The following econometric techniques are being applied for analysis.

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8Even after LGO, 2001, ninety six percent of public spending is carried out by the two tiers of government which are federal and provincial.
4.4.2.1 Engel-Granger Test for Cointegration:

The Engel-Granger methodology for testing Cointegration provides a very simple methodology. In 1981, Granger introduced the concept of linkages between the non-stationary data series in the long run. This concept was further worked upon by Engel and Granger in 1987 and was further simplified. Engel and Granger have proposed a four step procedure to check for the existence of long run relationship between the variables which are integrated of same order. These steps are outlined below.

At step one, all the variables are examined for the stationarity issues of the data. For this purpose the Dickey-Fuller (DF), the augmented Dickey-Fuller (ADF) or Phillips-Perron (PP) test can be used, depending on the nature of the data. Once it is proved that data has a unit root and all the variables are integrated of same order then we can proceed with Cointegration technique.

In the next step, the long run relationship is estimated by regressing the dependent variable on the set of independent variables (which all are integrated of same order as discussed in step one). Thus the residual series of the said regression is obtained which would be used for checking the existence of a long run relationship between the variables.

In step three, the existence of the long run relationship is looked at. Engel-Granger has suggested a very simple test for this purpose. The estimated series of regression error term is examined for unit root using the appropriate test. If the estimated regression residuals are stationary, then the dependent and independent variables are cointegrated and the long run relationship exists between the two.

As a last step, once the long run relationship establishes, error correction model is estimated. Thus by using error correction, an equation is obtained which has the characteristics of both the short run and long run as well as it describes the adjustment mechanism. The adjustment procedure is identified by the coefficient of the lagged residual term (of the long run regression), which is incorporated in the last equation. Hence the fourth step concludes with the estimation of Error-Correction model.

Error Correction Model:

Once cointegration is established, by definition the error term would be stationary i.e. it would be integrated of order zero i.e. I (0). To estimate an equation which carries
both the effects of the long run as well as the short run relationship, the error correction model specification would be as:
\[ \Delta Y_t = a_0 + \text{lagged} \left( \Delta X_{ti}, \Delta Y_t \right) - p u_{t-1} + e_t \]

Here the dependent variable is described in differenced form while the independent variables are expressed in lagged difference form. The coefficients of the lagged ‘\( \Delta X_{ti} \)’ measure the short run effect and indicate the immediate effect of any change in the explanatory variables upon the dependent variable. The long run relationship is shown by ‘\( p \)’ and its coefficient indicates the adjustment process. It shows the time lag, required for the start of the adjustment of the disequilibrium.

**Estimation Results:**

First of all, the ADF test results for unit root are discussed. ADF test is conducted with both ‘intercept’ and ‘trend & intercept’ for all the variables and results are given in Tables 4.1 & 4.2. The dependent variable i.e. per capita GDP (which is expressed in log form) has a unit root at level but achieves stationarity at first difference. Similarly, the sub-national to federal government tax revenue is also not stationary at level but at the first difference, this variable becomes stationary. The third important variable and a measure of fiscal decentralization is the variable of federal transfer to provinces. This variable is stationary at first difference with intercept. In the same manner, the rest of the variables i.e. openness, tax to GDP ratio, investment and human development indicator are non-stationary at level but become stationary at first difference. Same results were obtained for the ADF test with trend & intercept.

**Table 4.1: ADF test with Intercept**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>1st Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPCGDP</td>
<td>-1.373651</td>
<td>-4.355217*</td>
</tr>
<tr>
<td>STFTR</td>
<td>-2.319985</td>
<td>-4.749162*</td>
</tr>
<tr>
<td>RFTRANS</td>
<td>-1.132969</td>
<td>-5.279788*</td>
</tr>
<tr>
<td>OPEN</td>
<td>-2.398891</td>
<td>-5.487789*</td>
</tr>
<tr>
<td>TAXTGD</td>
<td>-2.797443</td>
<td>-5.454314*</td>
</tr>
<tr>
<td>RGFCF</td>
<td>-1.120594</td>
<td>-5.240063*</td>
</tr>
<tr>
<td>HDI</td>
<td>-0.022652</td>
<td>-4.382142*</td>
</tr>
</tbody>
</table>

Note: * indicate that variable is significant at 5 % level of significance.
Table 4.2: ADF test with Trend and Intercept

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>Ist Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPCGDP</td>
<td>-1.361354</td>
<td>-4.361790*</td>
</tr>
<tr>
<td>STFTR</td>
<td>-2.251917</td>
<td>-5.943577*</td>
</tr>
<tr>
<td>RFTRANS</td>
<td>-2.151874</td>
<td>-5.169966*</td>
</tr>
<tr>
<td>OPEN</td>
<td>-2.504888</td>
<td>-5.397685*</td>
</tr>
<tr>
<td>TAXTGDP</td>
<td>-2.359678</td>
<td>-6.001708*</td>
</tr>
<tr>
<td>RGFCF</td>
<td>-1.833405</td>
<td>-5.371252*</td>
</tr>
<tr>
<td>HDI</td>
<td>-1.359959</td>
<td>-4.307033*</td>
</tr>
</tbody>
</table>

Note: * indicate that variable is significant at 5 % level of significance.

Once it is confirmed that all variables are integrated of order one i.e. I (1), the next step is to regress the dependent variable on the set of independent variables. Thus the said model is estimated and results are given in Table 4.3. However, before explaining the results, it is necessary to satisfy the necessary condition of the Engel Granger methodology for Cointegration i.e. to check the stationarity of the resulting error term. Therefore, the residual series is checked for stationarity at level. ADF test is used for this purpose and the calculated test statistic is “-3.82”. Thus the calculated t-value for ADF test for the estimated Ui is significant and the said variable (residual series of the regression) does not have any unit root or is stationary at level. This confirms that the earlier estimated regression is not spurious and a long run relationship exists between the given variables.

**Long Run Analysis**

Once the necessary condition is satisfied, the estimated regression can be interpreted for a long run relationship. Results obtained are perfectly in the line with economic theory as well as reflect the actual situation in Pakistan. Out of the variables of fiscal decentralization that are of the prime interest of this study, the ratio of the sub-national to federal government tax revenue, is statistically significant (at 10 percent level of significance) but have a negative sign (Table 4.3). This indicates that over the long

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9 Data used is given in Annex-V
run, there is a negative relationship between the ratio of provincial tax to federal tax revenue and the per capita GDP.

The second important variable of fiscal decentralization was the federal transfers to the provinces (as percentage of GDP). Although federal transfer to the provinces has increased with the passage of time but according to the results these transfers had no long run effect on economic growth of the country. The reason is that these amounts are just transfer payments to the provincial governments which are already collected by the federal government therefore it will have no effect on the economic efficiency of the provinces.

**Table 4.3: Estimated Results for Cointegration**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.891</td>
<td>0.197</td>
<td>9.590</td>
<td>0.0000</td>
</tr>
<tr>
<td>STFTR</td>
<td>-0.011***</td>
<td>0.006</td>
<td>-1.850</td>
<td>0.0753</td>
</tr>
<tr>
<td>RFTRANS</td>
<td>-0.006</td>
<td>0.010</td>
<td>-0.639</td>
<td>0.5277</td>
</tr>
<tr>
<td>OPEN</td>
<td>0.009*</td>
<td>0.002</td>
<td>5.220</td>
<td>0.0000</td>
</tr>
<tr>
<td>TAXTGDPR</td>
<td>-0.007</td>
<td>0.010</td>
<td>-0.663</td>
<td>0.5138</td>
</tr>
<tr>
<td>RGFCF</td>
<td>-0.005***</td>
<td>0.003</td>
<td>-1.832</td>
<td>0.0779</td>
</tr>
<tr>
<td>HDI</td>
<td>1.043*</td>
<td>0.203</td>
<td>5.147</td>
<td>0.0000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.939</td>
<td>F-statistic</td>
<td>70.1428</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.926</td>
<td>Prob (F-statistic)</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.275</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results are obtained using Eviews 3.1
* *, **, *** depicts the significance level at 1, 5 and 10 percent, respectively.

Apart from the variables of fiscal decentralization, other explanatory variables yield very good results. Among the explanatory variables “openness” was one of the important variables. According to the results, openness has posed very significant impact on Pakistan’s economic growth. In the long run, trade openness has significantly and
positively affected economic growth which is in line with economic theory. Another variable which is always considered very important in the economic development of a country is the tax to GDP ratio of a nation. However, in the estimated regression, in the case of Pakistan, tax to GDP ratio has not affected economic growth. Although astonishing but if analysed critically the actual tax-to-GDP ratio has remained stagnant. It has hovered around 11-12 percent through most of the time for Pakistan. Thus in the long run, tax to GDP could not play its role in significantly affecting economic growth in the case of Pakistan.

In the estimated results for the Cointegration, investment has turned significant although bears very small coefficient (at 10 percent level of significance) and at the same time have a negative sign too. One reason for such kind of relationship might be the non productive use of investment funds like in real estate and other speculative activities without investing it in the production side.

The last variable in the model was human capital which was described by human development index. With the increase in knowledge, technical skills and overall human capacity, economic growth is bound to be effected positively. In regression analysis, overall human capital is highly significant and has impressive coefficient (1.04).

4.5.2 Short run analysis

Contrary to the long run relationship, in the short run both the variables of fiscal decentralization (i.e. provincial to federal government tax revenue and federal transfers to provinces) has resulted in statistically significant relationship with per capita GDP. In the case of Pakistan, the process of adjusting the disequilibrium starts at the second lag (Table 4.4). Within the two variables of fiscal decentralization, the first one has again come up with the negative sign but with very small coefficient. While the other variable (federal transfers to provinces) has not only become significant in the short run but at the same time has a positive coefficient as well. Thus federal transfers do have a positive effect on the economic growth in the short run but have no effect in the long run.

The rest of the independent variables are all insignificant in the short run which suggests that they influence economic growth only in the long run. Another important explanatory variable in the error correction model is the lagged value of the error term (obtained from the earlier regression). The error term is significant in the error correction
and thus this equation contains both the influences of the short run as well as the long run. Its coefficient depicts the adjustment behaviour of the model and reflects the time frame required for the start of adjustment in the disequilibrium, which is two year.

Table 4.4: Estimated Results for Error Correction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.006</td>
<td>0.007</td>
<td>-0.785</td>
<td>0.4403</td>
</tr>
<tr>
<td>D(STFTR(-2))</td>
<td>-0.008***</td>
<td>0.004</td>
<td>-1.912</td>
<td>0.0690</td>
</tr>
<tr>
<td>D(RFTRANS(-2))</td>
<td>0.030**</td>
<td>0.011</td>
<td>2.792</td>
<td>0.0106</td>
</tr>
<tr>
<td>D(OPEN(-2))</td>
<td>-0.001</td>
<td>0.001</td>
<td>-0.615</td>
<td>0.5450</td>
</tr>
<tr>
<td>D(TAXTGD(-2))</td>
<td>-0.007</td>
<td>0.006</td>
<td>-1.280</td>
<td>0.2139</td>
</tr>
<tr>
<td>D(RGFCF(-2))</td>
<td>0.003</td>
<td>0.003</td>
<td>0.897</td>
<td>0.3795</td>
</tr>
<tr>
<td>D(HDI(-2))</td>
<td>1.138</td>
<td>1.164</td>
<td>0.977</td>
<td>0.3390</td>
</tr>
<tr>
<td>U (-2)</td>
<td>-0.342***</td>
<td>0.171</td>
<td>-2.002</td>
<td>0.0577</td>
</tr>
<tr>
<td>D(LPCGDP(-2))</td>
<td>0.378***</td>
<td>0.197</td>
<td>1.919</td>
<td>0.0680</td>
</tr>
</tbody>
</table>

R-squared                0.483      F-statistic       2.5729
Adjusted R-squared       0.295      Prob(F-statistic) 0.0378
Durbin-Watson stat       2.216

Results are obtained using Eviews 3.1

*,**,*** depicts the significance level at 1, 5 and 10 percent, respectively.

**CONCLUSION & RECOMMENDATIONS**

This study mainly discussed the fiscal resource distribution mechanism of Pakistan. Main objective of the study was to get acquainted with the fiscal decentralization stance of Pakistan and its impact on economic growth of the country over the long run. In this connection, all the important concepts and systems that took place in Pakistan, were discussed at the start.

The issue of resource distribution among federal and provincial governments never proved to be simple and is always considered a much complex issue. This study
identified several issues in fiscal resource distribution mechanism of Pakistan. The most important issue was that the National Finance Commission adopts a single criterion (population) for resource redistribution among the constituent parts. There is a need to consider, evaluate and choose among a range of other indicators of development and fiscal needs. Among the important variables; infrastructure, poverty, backwardness, revenue generation capacity, efficiency aspects, inverse population density and likewise should be reviewed and most appropriate of these should be taken into account for solving the economic discrepancies of provinces through adequate resource transfer.

A best working federal transfer system should take both the competitive as well as cooperative aspect of federalism. Although, these aspects are somewhat contrary to one another but to ensure balanced growth and considering welfare of the people, a balance should be brought between the two sides of federalism. A transfer system should be such that it can enhance economic efficiency and productivity through incentives as well as competition. Competitive federalism would take provinces towards innovation in revenue generation and better service provision through the increased competition among the federating units. Thus competitive federalism would induce higher economic growth that result from increased efficiency and would also help in achieving better governance.

To sum up, key to successful public service delivery is adequacy, sufficiency, transparency and regular flow of funds to the stake holders. There should be an integration of other resource distributions tied to the development unit and all channels of resource flow to the provinces should be identified. Thus a bottom up approach is required which include all levels of formula, straight transfers and non-formula adhoc transfers. This should be accompanied with clearly identified aims and objectives of the financing and service delivery assignments; this will lead to an optimal level of growth and equity. Government has already focused on the devolution of power, which if accompanied with an adequate financial devolution would result in maximum economic returns.

There should be more provincial autonomy and national cohesion that would result in better understanding of the needs of the federating units keeping the regional affiliation at the side. Financial autonomy will give more resources, more confidence and would also make the federating unit more accountable. Decentralized set up will reduce
the dependence of the provinces on the centre and centre would be allowed to concentrate more on the national issues and only engage in the collection of those resources which can be economically collected at the federal level. Thus the economic loss due to absence of capacity building mechanism in the provinces as well as engagement of the centre in the provincial matters would be resolved.

In the light of the given discussion, following recommendations can be suggested which would enhance the performance of the federation and result in higher economic growth:

1. Administrative decentralization should be accompanied with the adequate fiscal decentralization and capacitating the provinces with the delegation of appropriate taxation powers.
2. Specialized and independent institutions should be developed to ensure smooth and judicious Intergovernmental resource distribution.
3. There should be a permanent body of NFC with a specialized secretariat and professionals of the subject as consultants.
4. The criteria used for addressing horizontal resource distribution should be broadened by incorporating the criteria of tax collection efficiency, lag in infrastructure and area.
5. Data availability and its quality should be improved to ensure better assessment of sub-national revenue potentials as well as to enhance transparency in resource flow.

REFERENCES


