Determining Pakistan's Financial Dependency: The Role of Financial Globalization and Corruption

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ABSTRACT

This article has analyzed the role of financial globalization and corruption in determining financial dependency in Pakistan from 1980 to 2020. For checking the stationary of the data Augmented Dickey-Fuller and Zivot-Andrew structural break unit root tests. For examining the cointegration autoregressive distributed lag method has been applied. The results explain that the level of corruption has a positive and significant impact on financial dependency in Pakistan. Financial globalization has a negative and significant impact on financial dependency in Pakistan. The estimated outcomes explain that the unemployment rate and balance of payments have a positive and significant impact on financial dependency in Pakistan. The findings of this article suggest that for the reduction of financial dependency, the government of Pakistan should increase financial globalization and depresses corruption, unemployment, and balance of payments.

Keywords: Financial dependency, financial globalization, corruption, budget deficit

JEL Codes: D73, F36, F38, H61

1. INTRODUCTION

Since, the beginning of the 21st century, financial dependence has become a rampant source among developing countries to meet the necessary financial needs. Historically, the dynamic of financial dependency is attached to war financing and business cycle fluctuations, whereas budget surpluses and deficits are instrumental. Traditionally, rationalization and tax-smoothing consider the best way to reduce financial dependency (Barro, 1979; Ali & Naeem, 2017). But the rising trend of

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financial dependency since the 1980s', has surprised policymakers when rationalization and tax-smoothing failed badly. Moreover, the recent hike in globalization also highlighted the intensity of financial dependency.

Before the recent financial crisis, the world developed a high tolerance for the issue of financial dependency. This is probably due to the relatively calm times in the global economy in the 20 years preceding the crisis, especially at the beginning of the 21st century in the presence of a global saving glut and very low-interest rates. This made reliance on debts a preferable option for several countries and unsurprisingly high increases in both government and external debts were observed. The debt levels in several advanced economies exceed 100% of GDP and lower but progressively growing debt levels in less developed countries. It seems as if the world had forgotten the debt crisis of the 1980s and its severe consequences for economies. Following the debt crisis of the 1980s, many studies investigated the issue of high debts and their sustainability, but primarily focused on developing economies and with little relevance for advanced countries. Several studies have shown the danger of high and increasing indebtedness for less developed countries. In the context of developing economies, various theoretical contributions argued that in the long run, the expected effects of high levels of debt on economic activity are principally negative. While it is recognized that there is also a possibility of a positive impact of debts on economic growth. Theoretically, higher public debts may be considered as endangering the private debts through the crowding out effect and thus reduce expectedly more productive private investment, and in consequence, reduce the potential long-run economic growth. In addition, there may be also an effect on the long-term interest rate (which is expected to increase under the pressure of increasing public debt), again it may reduce the long-term growth, with a possibility even of a non-linear effect. Thus, in theory, both positive and negative effects of debt are possible. However, the

extensive literature emphasizes the negative relationship between economic growth and debt e.g., Reinhart and Rogoff (2011), and Ali (2015, 2018).

Financial globalization is understood as the integration of a country's local financial system with international financial markets and institutions. This integration typically requires that governments liberalize the domestic financial sector and the capital account. Integration takes place when liberalized economies experience an increase in cross-country capital movement, including active participation of local borrowers and lenders in international markets and widespread use of international financial intermediaries (Ali & Rehman, 2015; Ali & Audi, 2018). Although developed countries are the most active participants in the financial globalization process, developing countries (primarily middle-income countries) have also started to participate. Historically, financial globalization is not a new phenomenon, but the current depth and breadth of financial globalization are unprecedented. Capital flows have existed for a long time. In fact, according to some measures, the extent of capital mobility and capital flows a hundred years ago is comparable to today's. In the past, few countries and sectors had participated in financial globalization. Capital flows tended to follow the migration and were generally directed towards supporting trade flows. Mostly, capital flows took the form of bonds and they are long-term in nature. International investment is dominated by a small number of freestanding companies, and financial intermediations are concentrated on a few family groups. The international system is still dominated by the gold standard, or gold-backed national currencies (Taylor, 1996; Obstfeld & Taylor, 1998; Baldwin & Martin, 1999; Collins, 1999; Bordo et al., 1999; Eichengreen & Mody, 2000; World Bank, 2000; Ali & Ahmad, 2014; Ali and Audi, 2016; Ali & Bibi, 2017).

Developing countries like Pakistan are inclined to attract foreign resources to meet the domestic needs of physical capital (Ali et al., 2016; Ali & Zulfiqar, 2018; Ali & Senturk, 2019; Audi et al.,

2021; Ahmad et al., 2022; Audi et al., 2022; Ali et al., 2022; Audi et al., 2022). The inflow of these financial resources is supposed to increase investment and economic growth, but there are only a few success stories regarding financial dependency and economic growth. With other developing countries in South Asia, Pakistan has received a significant amount of financial resources, but their role is critical to explain as these countries are still poor and deprived. The financial indebtedness of Pakistan doesn't show us an attractive picture, as the average debt stock was 32.4 share of GDP during the 1970s which further increased to 38 percent of GDP in the 1990s, still Pakistan has the highest debt rate in the region. This growing foreign dependency provides a signal for Pakistan, if the present trend is still going Pakistan is likely to default. This scenario increases the importance of financial dependency to study, as Pakistan needs better management of foreign financial resource inflow.

2. LITERATURE REVIEW

A sufficient amount of studies related to the optimal choice considered financial dependency as a part of the business cycle (Barro, 1979; Lucas and Stokey, 1983; Aiyagari et al., 2002; Angeletos, 2002; Chari et al., 1994; Marcet and Scott, 2009; Sulehri & Ali, 2020). Aiyagari and McGrattan (1998) and Shin and Sohn (2006) highlight the importance of physical capital in the process of economic growth. In these studies, the role of government is to provide safety when agents are subject to uninsurable idiosyncratic risk. The government accumulates debt to crowd out private capital, which is inefficiently high due to precautionary savings. Krusell and Rios-Rull (1999), Corbae et al., (2009), and Bachmann and Bayer (2013) mention that government expenditures on transfer payments force the government to rely on external sources of finances. Alesina and Tabellini (1990), Persson and Svensson (1989), Battaglini and Coate (2008), Caballero and Yared

(2008), Ilzetzki (2011), Aguiar and Amador (2016) and Song et al., (2012) further mention that it is political economy, which decides the pattern of external dependency of a nation. Klein and Marmor (2006) and Azzimonti et al., (2014) point out that tax structure plays important role in determining the external dependency and fiscal deficit of the country. Chang (2008) explains that international liberalization of capital markets changes the borrowing pattern of developing countries. Backus and Kehoe (1989), Mendoza and Tesar (2005), and Quadrini (2005) mention that developing countries cannot find a balanced budget with the help of developed countries and financial institutions. Siddiqui and Malik (2001) claim that foreign resource inflow increased resource availability and as a result, it contributes to economic growth. Caballero et al., (2008), Mendoza et al., (2009), and Angeletos and Panousi (2011) mention that cross-country domestic heterogeneity in financial markets disturbed the financial self-sufficiency of developing countries and their position in the international financial market.

Over the years, the lack of financial resources urges the governments of Pakistan to rely on foreign financial resources. The domestic financial markets in Pakistan are trying to cope with this issue, and Pakistan opted for the era of liberalization to integrate its markets both domestically and internationally. In the process of self-sufficiency in financial resources, Pakistan is a financial dependency on developed countries (Uppal, 1993; Malik et al., 2006). Empirical evidence reveals that the domestic investment strategies of Pakistan also do not favor to opt more globalized economic system (Farid et al., 1995; Hussain et al, 2002; Hameed et al., 2006). These issues urge us to study the impact of financial globalization on financial dependency in Pakistan.

Availability of financial resources is one of the main requirements in the process of economic growth, but developing countries like Pakistan have lesser financial resources. Developing countries are characterized by low economic growth, high poverty, fewer natural resources, and

high dependency on developed countries. An elite corrupt class comprised of few people is controlling the whole resources of these countries (Jaffrey, 2002). In this globalized era, financial dependency has become a topic of discussion among policymakers, and the emergence of the IMF, the World Bank, and WTO has lightened up the world with globalized finances. Now, developing countries rely on debt and foreign aid to meet their financial requirements. Historically, highly indebted economies have effectively responded with a variety of policy approaches, and three different options are available in this regard. First, a growth-supporting policy mix is inevitable for debt reduction and fiscal consolidation. Second, fiscal consolidation must emphasize persistent structural reforms to public finances over temporary or short-lived fiscal measures. Third, reducing public debt is bounded to be time taking, especially in the context of a weak external environment. Since 1951, domestic savings in Pakistan are not been enough for domestic investment, and the investment has been substantially funded by foreign resources (Ahmad and Amjad, 1984). Over time domestic financial markets in Pakistan have become more integrated with both the world economy and Pakistan's real domestic economy over the era of globalization. This evidence has made Pakistan an interesting case to study, so, this study has examined the impact of financial globalization and corruption on financial dependency in the case of Pakistan. This type of study is hardly available in the existing literature. Being novel in nature, this study is a healthy contribution to the respective literature.

3. THEORETICAL LINKS TO EMPIRICAL MODEL

The concept of dependency theory was first introduced during the late 1960s, but it got much importance with the work of Ahiakpor (1985). It points out that today's developed countries also face similar situations in past, so with the help of developed countries, developing countries can

achieve a higher level of economic growth. Thus, financial dependency refers that when a country is unable to meet its required financial needs domestically, it should rely on developed countries or international financial institutions i.e. the World Bank and IMF. Normally, financial dependency has been witnessed by developing countries, as these countries have low economic growth, high levels of poverty, inefficient utilization of natural resources, and high inflation rate (Jaffrey, 2002). Khapoya (2015) mentions that imperialism is the main cause of financial dependence in African countries, the West had colonized these countries and snatched their natural resources. The leadership of developing and colonized countries are still brainwashed and inspired by developed countries. It is observed that due to leadership dependency, the level of corruption is increasing the financial dependency among developing countries (Gyimah-Brempong, 2001). The internal and external conditions of developing countries like Pakistan impact the utilization of economic surplus and reduce the chances to overcome the financial dependency of these countries. Developing countries are still confused between capitalism and socialism (Adil, 2007). Financial globalization is a greater contributor to the financial dependency of developing countries because it smooths the routes to the extraction of economic resources towards national and international peripheral societies. The opponents of globalization, consider it a loophole where developed countries exploit developing countries. Some internal factors are responsible for financial dependency i.e. poor investment, lack of motivation, political instability, outdated cultural practices, corruption, and overpopulation.

There is a direct or traditional channel through which financial globalization impacts financial dependency. The neoclassical growth theory explains that financial globalization leads to an inflow of capital in developing countries from developed countries when there are higher returns attached to this capital. It is assumed that financial inflow should complement limited savings in developing

countries and the level of investment can be increased in these countries. Certain types of financial inflows are attached to technological spillovers and managerial and organizational expertise. There are collateral benefits are attached to financial flows, which drive economic growth, improvement of institutions, development of domestic financial sectors, and betterment in macroeconomic policies (Levine, 2005; Kose et al., 2006; Mishkin, 2006, 2008; Senturk & Ali, 2022). Stulz (2005) explains that financial globalization reduces different agency issues by decreasing the cost of outside finance, it is beneficial for firms that have less capital. Based on mentioned studies, the function of this study model becomes as:

$FIND_t=f(CORR_t, FING_t, DEFICIT_t, UNEM_t, BOP_t,)$ (1)

FIND=Financial dependency (For the measurement of financial dependency, an index has been constructed with the help of Principle Component Analysis (PCA). For the construction of the financial dependency index, total debt, foreign aid and official development assistance have been used.)

COR=Corruption level (The level of corruption has been measured by the corruption perception index constructed by Transparency International. It is the composite index of different indicators based on 13 surveys and corruption assessments and the data of selected variables have been collected from a variety of reputed institutions.)

FGLB=Financial Globalization (Financial globalization index has been measured by the KOF index, for the measurement of financial globalization, this index has leading indicators i.e. private credit to GDP, de facto trade openness, the standard deviation of CPI inflation, and government revenue from tariff.)

DEFICIT= Budget deficit (Budget deficit measures the difference between government revenue and government expenditure. If the revenues are greater than the expenditures, it is budget surplus.)

UNEM=unemployment rate (Unemployment rate measures the percentage of the total labor force willing to work but cannot find work.)

BOP=Balance of Payment (Balance of payments measures the difference between receipts and payments of a country to the rest of the world. If the receipts are higher than the payments, the balance of payments is in surplus but if the receipts are less than the payments balance of payments is in deficit.)

t= time-period (1980-2020)

From the above functional form, we can drive the econometric model:

$$FIND_t=\alpha+\beta_1 COR_t+\beta_2 FING_t+\beta_3 DEFICIT_t+\beta_4 UNEM_{t+}\ \beta_5 BOP_t+U_t \quad (2)$$

All the variables are explained above:

α= intercept/constant coefficient

$\beta_{'s}$= slope coefficient

U= error term

This study is going to examine the impact of financial globalization on financial dependency in the case of Pakistan. The empirical analysis taken will be taken from 1980 to 2020. Data on selected variables will be taken from the World Bank, Ministry of Finance Pakistan, and State Bank of Pakistan. KOF index of financial globalization will be taken from Gutenberg University, and corruption data will be taken from Transparency International.

4. ECONOMETRIC METHODOLOGY

In empirical studies, applying the tools of econometrics is a very important part of the study. The macroeconomic data have the issues of time trends, these time trends make the estimated results biased (Nelson and Plosser, 1982; Lumsdaine and Papell, 1997). The existence of a time trend

makes the time series data non-stationarity and data has unit root issues. There are many procedures available that check the unit root issue in the data, these unit root tests help the researcher to check the reliability of the data. Stationary data have impermanent shocks and series convergence in the long-run equilibrium path. But non-stationary time series never converge in the long-run equilibrium path, and the estimated results of this data are not reliable. While explaining the non-stationary data, Dickey and Fuller (1979) point out that there are positive or negative shocks in the data. Before any further analysis, the removal of these shocks is necessary. There are many unit root tests are available that help to remove unit root issues in the time series data. For checking the stationarity of our time series data, the present study has used Augmented Dickey-Fuller (ADF) (1981). The functional form of ADF becomes as:

$$\Delta X_t = \delta X_{t-1} + \sum_{j=1}^{q} \phi_j \Delta X_{t-j} + e_{1t} \quad (3)$$

$$\Delta X_t = \alpha + \delta X_{t-1} + \sum_{j=1}^{q} \phi_j \Delta X_{t-j} + e_{2t} \quad (4)$$

$$\Delta X_t = \alpha + \beta t + \delta X_{t-1} + \sum_{j=1}^{q} \phi_j \Delta X_{t-j} + e_{3t} \quad (5)$$

4.1.ZIVOT AND ANDREW STRUCTURAL BREAKS UNIT ROOT TEST

The problem with PP, DF-GLS, and ADF is that these tests don't highlight the existence or non-existence of structural breaks in the data. Zivot and Andrews (2002) propose a unit root test to solve this issue. Zivot and Andrew's test proceeds with three model models to test for a unit root; model A uses a one-time change in the level of series; model B allows for a one time-change in the slope of the trend function; model C combines one-time changes in the level and the slope of trend function of the series.

Model A; $\Delta y = c + \alpha y_{t-1} + \beta t + \gamma DU_t + \sum_{j=1}^{k} d_j \Delta y_{t-j} + \varepsilon_t$ (6)

Model B; $\Delta y = c + \alpha y_{t-1} + \beta t + \Theta DT_t + \sum_{j=1}^{k} d_j \Delta y_{t-j} + \varepsilon_t$ (7)

Model C; $\Delta y = c + \alpha y_{t-1} + \beta t + \Theta DT_t + \gamma DU_t + \sum_{j=1}^{k} d_j \Delta y_{t-j} + \varepsilon_t$ (8)

where DU_t is an indicator dummy variable for a mean shift occurring at each possible break-date (TB) while DT_t is the corresponding trend shift variable. Formally,

$DU_t = \{^{1 \text{------} if\ t>TB}_{0 \text{-------} otherwise}$ and

$DT_t = \{^{t-TB \text{------} if\ t>TB}_{0 \text{-------} otherwise}$

$\alpha=0$ is the null hypothesis for the above three equations, this reveals the series contains a unit root with a drift that excludes any structural break, while the alternative hypothesis $\alpha<0$ implies that the series is a trend-stationary process with a one-time break occurring at an unknown point in time. The Zivot and Andrews test consider every point as a potential break-date (TB) and runs a regression for every possible break-date sequentially. From amongst all possible break-points (TB), the procedure selects its choice of break date ($\overline{TB}$) the date which minimizes the one-sided t-statistic for testing $\hat{\alpha}(=\alpha -1) =1$. According to Zivot and Andrews, the presence of the endpoints causes the asymptotic distribution of the statistics to diverge towards infinity. Therefore, some regions must be chosen such that the endpoints of the sample are not included. Zivot and Andrews suggest the 'trimming region' be specified as (0.15T, 0.85T). Perron and Qu (2007) suggest that most economic time series can be adequately modeled using either model A or model C. As a result, the subsequent literature has primarily applied model A and/or model C. In another study, Pesaran et al., (1999) show that if one uses model A, when in fact the break occurs according to model C then there will be a substantial loss in power. However, if a break is characterized

according to model A, but model C has been used then the loss in power is minor, suggesting that model C is superior to model A. Based on these observations, we choose model C for our analysis of unit roots.

4.2.AUTOREGRESSIVE DISTRIBUTIVE LAG MODEL TO CO-INTEGRATION

Following applied econometrics, numerous techniques are available which examine the cointegration among the variables of the model. Well-known techniques are Engle-Granger's (1987) technique based on error term, Johansen and Juselius's (1990) and Johansen's (1991/1992) techniques based on Maximum Likelihood. The common thing with all these traditional techniques, these techniques required identical order of integration for examining the cointegration among the variables of the model. These traditional techniques become invalid in the presence of mixed or different orders of integration among the variables of the model. Moreover, these techniques are unable to present unbiased estimates in the presence of structural breaks. In this advanced age, the structural changes in the economies are changing the whole socioeconomic and institutional scenarios of the economies, and with the help of traditional techniques, we are unable to examine unbiased results (Perron, 1989, 1997; Leybourne and Newbold, 2003). Pesaran and Pesaran (1997), Pesaran et al., (1999), and Pesaran et al., (2001) have developed a new technique of cointegration which is ARDL (Autoregressive Distributive Lag).

Following the procedure of the ARDL technique, this technique has some advantages over the old and outdated techniques of cointegration. First, ARDL can be used in the presence of mixed order of integration among the variables of the model (Pesaran et al., 1999). Moreover, ARDL can be applied to either variables that have the same order of integration or mixed order (Pesaran et al., 1999). Second, ARDL can provide better estimates in the case when we have a small sample size

of the data set (Mah, 2000) but the old techniques are unable to provide better estimates in the case of a small data set. Third, the ARDL procedure allows the researcher to use a sufficient number of lags in the modeling process of final estimates (Laurenceson and Chai, 2003). Third, ARDL provides valid and sufficient information about structural breaks in the time series variable. Pesaran and Pesaran (1999) mention that "appropriate modification of the orders of the ARDL model is sufficient to simultaneously correct for residual serial correlation and the problem of endogenous variables".

The Unrestricted Vector Error Correction Model is used as the bases for the ARDL procedure and ARDL has unique properties for long-run and short-run equilibrium rather than old methods of cointegration (Pattichis, 1999). Pesaran et al., (1997), after four years Pesaran et al., (2001) point out that during a few cases, the long-run correlation of the variables can be examined with the help of the ARDL. As we have selected the required lag order for ARDL, the OLS procedure can be utilized for estimation and identification. Now we can estimate valid coefficients and inferences in the presence of long-run co-integration. Alam and Quazi (2003) point out that ARDL analysis can be possible even when we have endogenous variables in the model as well. ARDL can be used for mixed order of integration among the variables of the model. But in the presence of all the good qualities ARDL is unable to provide valid estimates if either variable is stationary at the 2nd difference. ARDL procedure can be applied as follows:

$$\Delta \ln Y_t = \beta_1 + \beta_2 t + \beta_3 \ln Y_{t-1} + \beta_4 \ln X_{t-1} + \beta_5 \ln Z_{t-1} + ...$$

$$+ \sum_{h=1}^{p} \beta_h \Delta \ln Y_{t-h} + \sum_{j=0}^{p} \gamma_j \Delta \ln X_{t-j} + \sum_{k=0}^{p} \phi_k \Delta \ln Z_{t-k} + ... + u_{it} \quad (9)$$

Here the dependent variable is $\ln Y_t$; time presented with t; the lag of the dependent variable can be presented with $\ln Y_{t-1}$; the first independent variable is presented by $\ln X_t$; the second

independent variable is presented by $\ln Z_t$ and so on. The rate of change can be measured with the help of Δ. First, we will examine the direction of the relationship for the variables in the case of Pakistan with the help of the F test and W test. F-statistic and W-test decide the order of integration for the variables, here we can use either time trend or intercept for the analysis procedure.

Estimated F-Statistic and W-test are used for the comparison of tabulated values of Pesaran and Pesaran (1997) or Pesaran et al., (2001) which was further revised by Narayan (2005). In case the calculated F-test statistic and W-test are higher than the upper bound value, we can reject the null hypothesis and conclude that there is cointegration among the variables of the model. But in case the calculated F-test statistic and W-test statistic are not greater than the upper bound value. Then we can conclude that there is no cointegration among the variables of the model. On the other hand, if the calculated F-test statistic lies between the lower and upper bound, we can conclude that the relationship is inconclusive. The procedure to write null and alternative hypothesis of the ARDL bound test is as follow:

$H_0 : \beta_3 = \beta_4 = \beta_5 = 0$ (no co-integration among the variables)

$H_A : \beta_3 \neq \beta_4 \neq \beta_5 \neq 0$ (co-integration among variables)

After that we found a long relationship among the variables, we can use VECM (Vector Error Correction Model) for examining the short-run relationship among the variables. VECM procedure can be explained as:

$$\Delta \ln Y_{it} = \beta_1 + \beta_2 t + \sum_{h=1}^{p} \beta_h \Delta \ln Y_{it-h} + \sum_{j=0}^{p} \gamma_j \Delta \ln X_{t-j} + \sum_{k=0}^{p} \phi_k \Delta \ln Z_{it-k} + \omega ECT_{t-1} + u_t \qquad (10)$$

Lagged error correction can be presented by ECT_{t-1}; all the other variables that have been explained in the earlier equation. The results of the error correction term explain the speed of adjustment from the short run towards the long run. To determine the goodness of fit of the ARDL

model, diagnostic tests are conducted. The diagnostic or sensitivity tests examine autoregressive conditional heteroscedasticity, serial correlation, normality, and heteroscedasticity associated with the model.

5. RESULTS AND DISCUSSION

This part of the study is comprised of empirical results and discussion. The results of descriptive statistics have been given in table 1. The results present the mean, median, maximum, minimum, and standard deviation of the selected variables of the model. The estimated outcomes show that financial dependency, level of corruption, budget deficit, and unemployment rate are negatively skewed, whereas financial globalization and balance of payment are positively skewed. All the selected variables have positive Kurtosis values over the selected period. The estimated Jarque-Bera value probability values of the selected variables are insignificant which reveals that the selected data of all the variables is normally distributed.

Table-1

Descriptive Statistic						
	FIND	CORR	FING	DEFICIT	UNEM	BOP
Mean	0.778866	2.273333	43.08333	6.253889	5.596667	6.338889
Median	0.659390	2.250000	43.00000	6.320000	5.750000	6.000000
Maximum	0.306321	3.000000	54.00000	9.100000	8.270000	12.80000
Minimum	1.871715	1.000000	34.00000	2.300000	3.050000	1.300000
Std. Dev.	0.633666	0.497514	4.783155	1.716782	1.473866	3.075937
Skewness	-0.069079	-0.249614	0.354502	-0.262352	-0.035744	0.207340
Kurtosis	2.014677	2.718253	2.704903	2.306675	2.424844	2.018734
Jarque-Bera	1.484923	0.492916	0.884654	1.134021	0.503872	1.702263
Probability	0.475941	0.781564	0.642540	0.567219	0.777295	0.426932
Sum	-28.03919	81.84000	1551.000	225.1400	201.4800	228.2000
Sum Sq. Dev.	14.05363	8.663200	800.7500	103.1569	76.02980	331.1486
Observations	40	40	40	40	40	40

The estimated results of the correlation matrix have been given in table 2. The results show that financial dependency has a positive and significant correlation with the level of corruption in the case of Pakistan, whereas financial dependency has a negative and significant correlation with financial globalization. The estimates show that the budget deficit has a negative but insignificant correlation with financial dependency in Pakistan. The unemployment rate has a positive and insignificant correlation with financial dependency, whereas financial dependency has a positive and significant correlation with the balance of payments in the case of Pakistan. The results show that corruption has a negative and significant correlation with financial globalization, whereas it has a positive and significant correlation with the balance of payments in the case of Pakistan. The results reveal that budget deficit and unemployment rate have a positive but insignificant correlation with corruption in the case of Pakistan over the selected period. The outcomes show that financial globalization has a negative and significant correlation with the budget deficit and balance of payments but it has a positive and significant correlation with the unemployment rate in the case of Pakistan. The budget deficit has a negative and significant correlation with the unemployment rate but it has a positive but insignificant correlation with the balance of payments. The results reveal that there is a negative and significant correlation between the balance of payments and the unemployment rate in the case of Pakistan. The results of the main model show that most of the independent variables have a significant correlation with the dependent variable i.e. financial dependency of Pakistan. The overall results of the correlation matrix show that most of the explanatory variables have significant correlation but not very high correlation which becomes the issue of multicollinearity. So, there is no issue of multicollinearity among the explanatory variables of the model.

Table-2

Correlation Matrix						
Variables	FIND	CORR	FING	DEFICIT	UNEM	BOP
FIND	1.000000					
CORR	0.691912***	1.000000				
FING	-0.372567**	-0.480736***	1.000000			
DEFICIT	-0.125370	0.149719	-0.543242***	1.000000		
UNEM	0.244210	0.027805	0.381656**	-0.603529***	1.000000	
BOP	0.467100***	0.399568**	-0.489969***	0.252009	-0.432249***	1.000000
***,**,* represent significant 1 percent, 5 percent, and 10 percent respectively.						

For checking the unit root problem in the data, this study has applied the Augmented Dickey-Fuller unit root test. The results of ADF have been given in table 3. The results show that only the level of corruption is stationary at level. At the first difference, all the selected variables become stationary, so the null hypothesis of non-stationary is rejected at the first difference for all the selected variables. Normally time series data has a time trend, so we have checked the unit root issue in the presence of a time trend. The results of ADF in the presence of time trends show that financial globalization is stationary at a level. The results show that all the selected variables in the presence of a time trend become stationary at the first difference and the null hypothesis of non-stationary is rejected. The results of the ADF unit root test reveal that there is mixed order of integration among the selected variables of the model, this is the best situation to use the autoregressive distributed lag model to examine the cointegration among the variables of the model.

Table-3

Augmented Dickey-Fuller Unit Root Test				
Variables	I(0)	I(1)	I(0) @Time Trend	I(1) @Time Trend
FIND	-1.851718	-6.909915***	-4.795301***	-6.946409***
CORR	-2.808259*	-6.021501***	-3.087831	-5.890252***
FING	-2.178454	-8.715159***	-2.485120	-8.775853***
DEFICIT	-2.219777	-6.544053***	-2.124912	-6.545255***
UNEM	-1.796526	-5.868698***	-1.359098	-6.049437***
BOP	-1.759962	-5.534930***	-2.287427	-5.794094***
***,**,* represent significant 1 percent, 5 percent, and 10 percent respectively.				

For checking the structural break in the data, this study has applied the Zivot-Andrew structural break unit root test. The estimated results of the Zivot-Andrew structural break have been given in table 4. The results show that in the presence of a structural break, no variable of the model is stationary at level, but at the first difference, financial dependency, level of corruption, financial globalization, budget deficit, unemployment rate, and balance of payments are stationary with structural breaks, 2002, 1998, 2001, 2013, 2005 and 2000 respectively. The estimated outcomes show that in the presence of time trends and structural breaks financial globalization and level of corruption are stationary at level. The estimated results show that with time trend all selected variables become stationary at first difference with different structural breaks. The overall results of the Zivot-Andrew structural break reveal that in the presence of different structural breaks, there is mixed order of integration among the selected variables which is a suitable situation to apply the ARDL method of cointegration.

Table-4

Zivot-Andrews Unit Root Test (with Structural-Break)				
Variables	I(0)	I(1)	I(0) @Time Trend	I(1) @Time Trend
FIND	1.299738(2000)	-4.221678***(2002)	-6.08421*** (2001)	-4.242922*(2001)
CORR	-2.094345(1999)	-3.463186*(1998)	-5.681489***(2001)	-3.947343*(2001)
FING	-3.239350(2007)	-5.237157***(2001)	-4.174400(2007)	-6.962503***(2007)
DEFICIT	-2.612361(1998)	-5.931104***(2013)	-2.899916(1998)	-4.318376*(1999)
UNEM	-0.154058(2005)	-4.055652*(2005)	-0.418005(2005)	-4.717809**(2005)
BOP	-1.799899(1997)	-4.833668***(2000)	-3.501160(1997)	-4.084782*(2004)
***,**,* represent significant 1 percent, 5 percent, and 10 percent respectively. Parentheses () present structural break.				

Lag selection is considered one of the prerequisites to examine the cointegration among the variables. Keeping the number of variables and the number of observations in our view and lags required for the co-integration test, a maximum of two lags are allowed for the Vector Auto-Regressive process. The results of the estimated lag order selection criteria have been given in table 5. Here results of logL, LR, FPE, AIC, SC, and HQ have been given. Thus, by following the

LR, FPE, SC, and HQ lag selection criterion maximum lag length 1 has been selected for running the autoregressive distributed lag method of cointegration.

Table-5

Lag Order Selection Criteria						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-307.7290	NA	7.291617	19.01388	19.28597	19.10543
1	-222.8234	133.7906*	0.391364*	16.04990	17.95455*	16.69076*
2	-194.2256	34.66393	0.772165	16.49852	20.03572	17.68868
3	-141.4346	44.79240	0.558584	15.48088*	20.65064	17.22035
* indicates lag order selected by the criterion LR: sequential modified LR test statistic (each test at 5% level) FPE: Final prediction error AIC: Akaike information criterion SC: Schwarz information criterion HQ: Hannan-Quinn information criterion						

This study is going to examine the impact of financial globalization and corruption on financial dependency in the case of Pakistan from 1980 to 2020. For examining the cointegration among the variables of the model autoregressive distributed lag model is applied. The results of the estimated bound tests have been given in table 6. W-statistic and F-statistic are used for testing no cointegration among the variables as the null hypothesis. As the null hypothesis i.e. there is no cointegration among the variables of the model. The calculated F-statistic (4.0321) is greater than the upper bound (3.7320) tabulated value of Pesaran, Shin, and Smith (2001) at 10 percent and the calculated W-statistic (24.1926) is greater than the upper bound (22.3922) tabulated value of Pesaran, Shin and Smith (2001) at 10 percent. So, the null hypothesis of no cointegration can be rejected, and an alternative hypothesis is accepted which confirms the existence of cointegration among the variables of the selected model. This confirms that financial dependency, level of corruption, financial globalization, budget deficit, unemployment rate, and balance of payments have a long-run association in the case of Pakistan.

Table-6

ARDL Bounds Testing Approach				
Dependent Variable FIND ARDL(1,1,1,0,1,0)				
Critical Value	F-Statistics 4.0321		W-statistic 24.1926	
	Lower Bound	Upper Bound	Lower Bound	Upper Bound
95%	3.0301	4.4242	18.1807	26.5450
90%	2.5175	3.7320	15.1051	22.3922

The long-run results of the study have been given in table 7. The estimated outcomes show that the level of corruption has a positive and significant impact on financial dependency, the value of the coefficient shows that a 1 percent increase in the level of corruption brings (.64566) percent increase in financial dependency in the case of Pakistan over the selected period. The estimated results are consistent with Petrou et al., (2014). Several other studies highlight that corruption can damage the economy by putting it under the pressure of internal and external financial dependency (Mauro, 1995; Kisunko, & Kapoor, 1999; Campos et al., 1999; Mauro, 1995; Mauro, 1997; Johnson et al., 1997; Wei, 2000; Friedman et al., 2000; Abed & Davoodi, 2002; Mo, 2001; Tanzi & Davoodi, 1998; Lambsdoff, 2003; Depken & Lafountain, 2006; Schneider, 2005; Schneider et al., 2010; Petrou, 2014; Van et al., 2016; Van et al., 2018). Corruption increases the cost of every project which encourages public spending and the government can arrange funds from foreign aid and foreign debt at the same time. Depken & Lafountain (2006) mention that the level of corruption decides the amount of foreign aid and foreign debt in the country, thus, it is favorable for developing countries to control corruption to overcome financial dependency. Following the historical background, we have witnessed that there is a rising trend in corruption and all types of financial assistance in the case of Pakistan. Under such circumstances, it can be supposed that Pakistan would accumulate a larger financial dependency over the year in the presence of a high level of corruption.

The results in table 7 show that financial globalization has a negative and significant impact on financial dependency, the coefficient shows that a 1 percent increase in financial globalization decreases financial dependency by (-.37964) percent in the case of Pakistan. These findings are consistent with Kono & Schuknecht (1999). There is considerable progress has been witnessed in liberalization since the 1980s in the case of developed and developing countries (Kenen, 2001; Kumar & Debroy, 1999; Gavin, 2001). Broadly speaking, the developed and industrialized countries rely on the multilateral process of economic and financial integration under the panels of WTO, IFM, and the World bank. The economic logic behind this integration is the removal of hurdles to the flow of goods, services, and capital. Following this integration, the countries invest and provide efficient financing both long-term and short-term. An open and efficient financial system at the domestic and international level is the key factor to handle this integration, this further reduces the level of foreign debt and foreign aid among the countries (Dobson & Jacquet, 1998; Cooper et al., 1999; Dailami, 1999; Drabek & Laird, 2001). Under such circumstances, it is favorable for developing countries to adopt financial globalization to overcome financial dependency (Berg et al., 2005).

The estimated results in table 7 show that the budget deficit has a negative but insignificant impact on financial dependency in the case of Pakistan. Kato & Hagendorff (2010) and Ibrahim & Alqaydi (2013) mention that it is not a fiscal deficit that urges developing countries to go for financial assistance, and most of the developing countries have an insignificant relationship between budget deficit and financial dependency.

The results of table 7 show that the unemployment rate has a positive and significant impact on financial dependency, the coefficient shows that a 1 percent increase in the unemployment rate brings (.21776) percent increase in financial dependency in Pakistan. These findings are consistent

with Bianchi et al., (2016). Cahyadin & Ratwianingsih (2020) find a bidirectional causal relationship between unemployment and external debt in the case of developing countries. It has been found that on one side, higher employment simulates economic growth, on the other side higher employment is one of the main sources for getting finances for all types of expenditures (Blanchard & Perotti, 2002; Jermann & Quadrini, 2012; Yue et al., 2015). In the presence of high unemployment, a country cannot achieve its targets. In the case of developing countries, it is high unemployment that becomes the main cause of low domestic financial sources (Altvater, 1988). Under such conditions level of the unemployment rate is positively related to financial dependency in the case of developing countries like Pakistan.

Table-7

Dependent variable is FIND; ARDL (1,1,1,0,1,0); Time Period 1980-2020		
	Long Run Results	**Short Run Results**
Regressor	Coefficients	Co-efficients
CORR	.64566***	.43248
FING	-.037964*	.0025797
DEFICIT	-.034907	-.032849
UNEM	.21776***	.12986
BOP	.081176**	.076391*
C	-2.1178	-
ECT	-	-.94106***
R-Squared .7652; R-Bar-Squared .68070; S.E. of Regression .35994; F-Stat. F(9,25) 9.0536[.000]; Mean of Dependent Variable -.76455; S.D. of Dependent Variable .63698; Residual Sum of Squares 3.2389; Equation Log-likelihood -8.0108; Akaike Info. Criterion -18.010; Schwarz Bayesian Criterion -25.787; DW-statistic 2.446		

The results of table 7 show that the balance of payment has a positive and significant impact on financial dependency, the coefficient reveals that a 1 percent increase in the balance of payment increases financial dependency by (.081176) percent in the case of Pakistan. These findings are consistent with Thirlwall (2012). Thirlwall (1979) points out that when international capital flows and interest payments balance out, to meet international transactions the small open economy relies on external sources. Balance of payments in terms of sustainable ratio deficit in trade to income,

this situation encourages small open economies to accumulate foreign debt (Moreno-Brid, 1998; Barbosa-Filho, 2001; Gouvêa & Lima, 2010; Romero & McCombie, 2016). Thus, developing countries like Pakistan are caught in a foreign financial dependency trap.

The short-run dynamics of the model have been given in table 7. The results show that level of corruption, financial globalization, budget deficit, and unemployment rate have an insignificant impact on financial dependency in the case of Pakistan during the short run. These findings are not consistent with the long-run findings in table 7. The estimated results of table 7 show that the balance of payment has a positive and significant impact on financial dependency, the coefficient shows that a 1 percent increase in the balance of payments (.076391) percent increase occurred in the financial dependency of Pakistan during the short run.

The significant negative value (-.94106) of ECM is theoretically correct and refers to short-run convergence into the long run. Moreover, a significant negative value of ECM refers to the adjustment speed from the short run towards the long run. The estimated coefficient highlights that the short run needs one year around one month to converge in the long run. The estimates show that short variations in the previous year are corrected by (94.106) percent very next year in the case of Pakistan. The lower part of table 7 presents some of the diagnostic tests. The estimated R-square value shows that more than 76 percent of variations in the dependent variable are due to selected explanatory variables of the model. The significant F-stat explains that the selected model is good-fit. The value of the DW statistic shows that there is no issue of autocorrelation in the selected data series, as its value is greater than 2.

The other diagnostic tests have been given in table 8. The null hypotheses for these diagnostic tests are; there is no serial correlation in the data; the model has no functional form issue; data has no normality issue; there is homoscedasticity. So, we accept the null hypothesis of all the diagnostic

tests. The results show that there is no issue of serial correlation, the model has the correct functional form, with normally distributed data, and there is no issue of heteroscedasticity in the data.

Table-8

Diagnostic Tests		
Test Statistics	LM-Version	F-Version
A-Serial Correlation CHSQ(1)	6.0329[.114]*F(1,24)	4.9984[.135]*
B-Functional Form CHSQ(1)	.86296[.353]*F(1,24)	.60670[.444]*
C-Normality CHSQ(2)	1.0150[.602]*	Not- applicable
D-Heteroscedasticity CHSQ(1)	1.8524[.174]*F(1,33)	1.8441[.184]*
A: Lagrange multiplier test of residual serial correlation B: Ramsey's RESET test using the square of the fitted values C: Based on a test of Skewness and kurtosis of residuals D: Based on the regression of squared residuals on squared fitted values		

While discussing the diagnostic tests, the stability of the model is also considered very vital. It enables the researcher to understand whether the selected and estimated model shifts or not over the selected period. Hansen points out that time series estimate biases arise due to the misspecification of the model. In this study, we have applied the Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUMsq) tests to overview the long-run and short-run stability of the selected model (Brown et al., 1975). The estimated Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUMsq) have been given in figure 1 and figure 2. The results show that both the Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUMsq) lied between critical lines and do not go outside the critical lines. The estimates reveal that our selected model is correctly theorized.

Figure-1

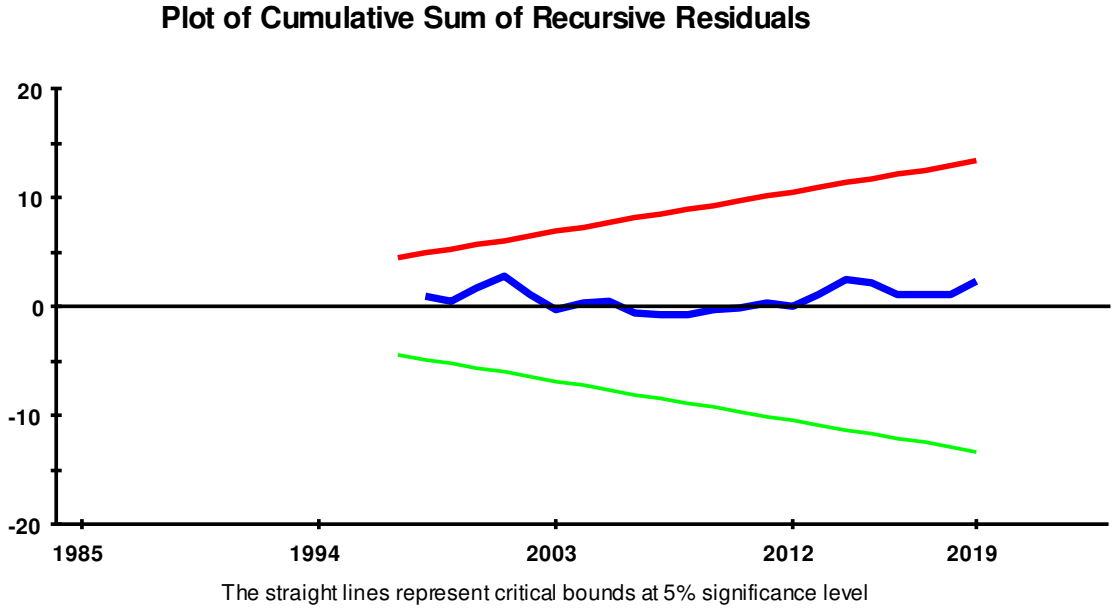
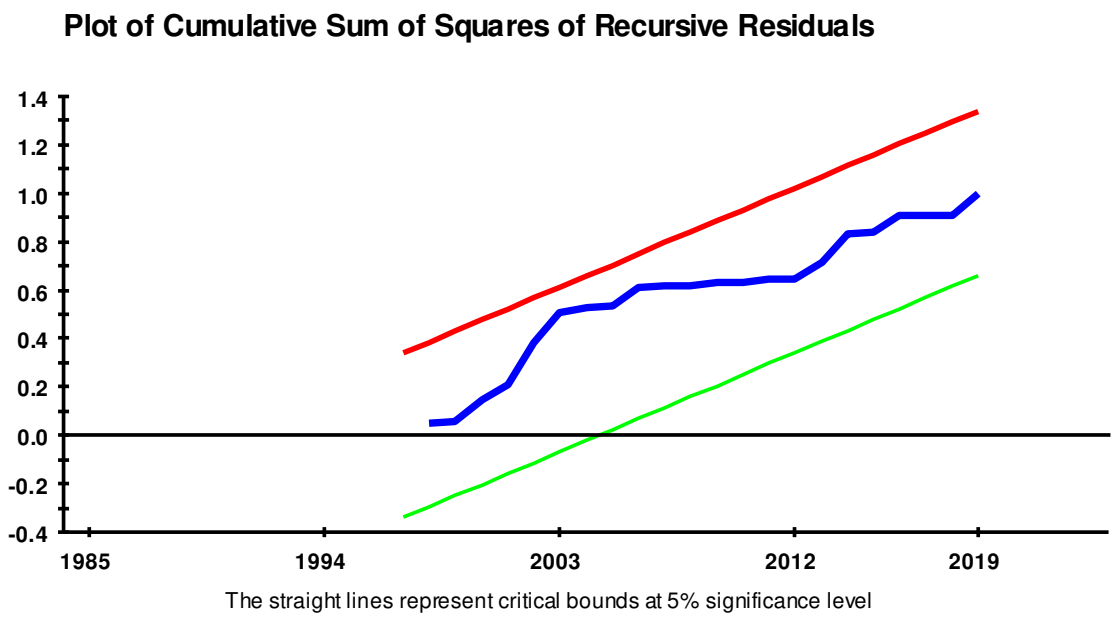


Figure-2



6. CONCLUSIONS AND POLICY SUGGESTIONS

This part of the study is comprised of conclusions and policy implications based on estimated results and discussion. The results explain that the level of corruption has a positive and significant

impact on financial dependency in Pakistan. It has been found that developing countries are facing a rising level of corruption and Pakistan stands 120 out of 180 United Nations members, so, Pakistan is also facing severe financial dependency on developed countries and other financial institutions i.e., IMF. Financial globalization has a negative and significant impact on financial dependency in Pakistan. The estimated outcomes explain that the unemployment rate and balance of payments have a positive and significant impact on financial dependency in Pakistan. Based on the findings, corruption is encouraging financial dependency, this suggests that for the reduction of financial dependency, corruption must be discouraged in developing countries like Pakistan. However, the reduction of corruption is attached to better public institutions and governance, so institutional reforms can reduce the level of corruption which further lowers the financial dependency in Pakistan. The results reveal that financial globalization is discouraging financial dependency, this suggests that for reducing financial dependency, developing countries like Pakistan should encourage foreign investment. As this would increase the level of physical capital which is not attached to foreign aid and debt, thus level of financial dependency will be depressed. The estimated outcomes show that unemployment has a positive and significant impact on financial dependency. This suggests that in the presence of high unemployment, the domestic financial resources cannot meet the required financial needs, which will encourage financial dependency among developing countries. So, for the reduction of financial dependency, the government of Pakistan must reduce the level of unemployment. The findings show that the balance of payment has a positive and significant impact on financial dependency. This reveals that if the balance of payment is negative in the presence of fewer exports, to meet this, the country has to rely on foreign financial resources. Thus, for the reduction of financial dependency, developing countries have to improve their balance of payments. The overall findings suggest that

for the reduction of financial dependency, the government of Pakistan should increase financial globalization and depress corruption, unemployment, and balance of payments.

REFERENCES

Abed, G. T., & Davoodi, H. R. (2000). Corruption, structural reforms, and economic performance in the transition economies.

Adil, M. (2007). Capital formation, Globalization, Imperialism and monopoly capitalism. *International Journal of Business Research*, 277-345.

Aguiar, M., & Amador, M. (2016). Fiscal policy in debt constrained economies. *Journal of Economic Theory*, *161*, 37-75.

Ahiakpor, J. C. (1985). The success and failure of dependency theory: The experience of Ghana. *International Organization*, 535-552.

Ahmad, K., Ali, A., & Yang, M. (2022). The Effect of Trade Liberalization on Expenditure Structure of Pakistan. *Bulletin of Business and Economics (BBE)*, *11*(1), 73-84.

Ahmed, V., & Amjad, R. (1984). The management of Pakistan's economy, 1947–82. Karachi, Pakistan: Oxford University Press.

Aiyagari, S. R., & McGrattan, E. R. (1998). The optimum quantity of debt. *Journal of Monetary Economics*, *42*(3), 447-469.

Aiyagari, S. R., Marcet, A., Sargent, T. J., & Seppälä, J. (2002). Optimal taxation without state-contingent debt. *Journal of Political Economy*, *110*(6), 1220-1254.

Alam, I., & Quazi, R. (2003). Determinants of capital flight: An econometric case study of Bangladesh. *International Review of Applied Economics*, *17*(1), 85-103.

Alesina, A., & Tabellini, G. (1990). A positive theory of fiscal deficits and government debt. *The Review of Economic Studies*, *57*(3), 403-414.

Ali, A. & Naeem, M.Z. (2017). Trade Liberalization and Fiscal Management of Pakistan: A Brief Overview. *Policy Brief-Department of Economics, PU, Lahore*. 2017 (1), 1-6.

Ali, A. (2015). *The impact of macroeconomic instability on social progress: an empirical analysis of Pakistan*. (Doctoral dissertation, National College of Business Administration & Economics Lahore).

Ali, A. (2018). Issue of Income Inequality Under the Perceptive of Macroeconomic Instability: An Empirical Analysis of Pakistan. *Pakistan Economic and Social Review*, 56(1), 121-155.

Ali, A. (2022). Financial Liberalization, Institutional Quality and Economic Growth Nexus: Panel Analysis of African Countries. *Bulletin of Business and Economics*, 11(3).

Ali, A. (2022). Foreign Debt, Financial Stability, Exchange Rate Volatility and Economic Growth in South Asian Countries. *Journal of Business and Economic Options*.

Ali, A. and Bibi, C. (2017). Determinants of Social Progress and its Scenarios under the role of Macroeconomic Instability: Empirics from Pakistan. *Pakistan Economic and Social Review* 55 (2), 505-540.

Ali, A., & Ahmad, K. (2014). The Impact of Socio-Economic Factors on Life Expectancy in Sultanate of Oman: An Empirical Analysis. *Middle-East Journal of Scientific Research*, 22(2), 218-224.

Ali, A., & Audi, M. (2016). The Impact of Income Inequality, Environmental Degradation and Globalization on Life Expectancy in Pakistan: An Empirical Analysis. *International Journal of Economics and Empirical Research*, 4 (4), 182-193.

Ali, A., & Audi, M. (2018). Macroeconomic Environment and Taxes Revenues in Pakistan: An Application of ARDL Approach. *Bulletin of Business and Economics* (BBE), 7(1), 30-39.

Ali, A., & Rehman, H. U. (2015). Macroeconomic instability and its impact on the gross domestic product: an empirical analysis of Pakistan. *Pakistan Economic and Social Review*, 285-316.

Ali, A., & Şenturk, I. (2019). Justifying the Impact of Economic Deprivation, Maternal Status and Health infrastructure on Under-Five Child Mortality in Pakistan: An Empirical Analysis. *Bulletin of Business and Economics*, 8(3), 140-154.

Ali, A., & Zulfiqar, K. (2018). An Assessment of Association between Natural Resources Agglomeration and Unemployment in Pakistan. *Pakistan Vision*, 19(1), 110-126.

Ali, A., Ahmed, F., & Rahman, F. U. (2016). Impact of Government Borrowing on Financial Development (A case study of Pakistan). *Bulletin of Business and Economics* (BBE), 5(3), 135-143.

Ali, A., Ehsan, R., Audi, M., & Hamadeh, H. F. (2022). Does Globalization Promote Financial Integration in South Asian Economies? Unveiling the Role of Monetary and Fiscal Performance in Internationalization.

Altvater, E. (1988). The Two Sides of the Coin: The Relationship between Unemployment and Debt in the World Economic Crisis. *International Journal of Political Economy*, *18*(2), 85-101.

Angeletos, G. M. (2002). Fiscal policy with noncontingent debt and the optimal maturity structure. *The Quarterly Journal of Economics*, *117*(3), 1105-1131.

Angeletos, G. M., & Panousi, V. (2011). Financial integration, entrepreneurial risk and global dynamics. *Journal of Economic Theory*, *146*(3), 863-896.

Audi, M., & Ali, A. (2022). Public Policy and Economic Misery Nexus: A Comparative Analysis of Developed and Developing World.

Audi, M., Ali, A., & Hamadeh, H. F. (2022). Nexus Among Innovations, Financial Development and Economic Growth in Developing Countries. *Journal of Applied Economic Sciences*, *17*(4), 373-393.

Audi, M., Ali, A., & Roussel, Y. (2021). Measuring the Tax Buoyancy: Empirics from South Asian Association for Regional Cooperation (SAARC). *Empirical Economics Letters*, 20(12).

Azzimonti, M., De Francisco, E., & Quadrini, V. (2014). Financial globalization, inequality, and the rising public debt. *American Economic Review*, *104*(8), 2267-2302.

Bachmann, R., & Bayer, C. (2013). 'Wait-and-See'business cycles? *Journal of Monetary Economics*, *60*(6), 704-719.

Backus, D. K., & Kehoe, P. J. (1989). On the denomination of government debt: a critique of the portfolio balance approach. *Journal of Monetary Economics*, *23*(3), 359-376.

Baldwin, R. E., & Martin, P. (1999). Two waves of globalisation: superficial similarities, fundamental differences. *NBER working paper*, (w6904).

Barbosa-Filho, N. H. (2001). The balance-of-payments constraint: from balanced trade to sustainable debt. *PSL Quarterly Review*, *54*(219).

Barro, R. J. (1979). On the determination of the public debt. *Journal of political Economy*, *87*(5, Part 1), 940-971.

Battaglini, M., & Coate, S. (2008). A dynamic theory of public spending, taxation, and debt. *American Economic Review*, *98*(1), 201-36.

Berg, A., Borensztein, E., & Pattillo, C. (2005). Assessing early warning systems: how have they worked in practice? *IMF staff papers*, *52*(3), 462-502.

Bianchi, J., Liu, C., & Mendoza, E. G. (2016). Fundamentals news, global liquidity and macroprudential policy. *Journal of International Economics*, *99*, S2-S15.

Blanchard, O., & Perotti, R. (2002). An empirical characterization of the dynamic effects of changes in government spending and taxes on output. *the Quarterly Journal of economics*, *117*(4), 1329-1368.

Bordo, M. D., Eichengreen, B., Irwin, D. A., Frankel, J., & Taylor, A. M. (1999, January). Is Globalization Today Really Different from Globalization a Hundred Years Ago?[with Comments and Discussion]. In *Brookings trade forum* (pp. 1-72). Brookings Institution Press.

Brown, R. L., Durbin, J., & Evans, J. M. (1975). Techniques for testing the constancy of regression relationships over time. *Journal of the Royal Statistical Society: Series B (Methodological)*, *37*(2), 149-163.

Caballero, R. J., & Yared, P. (2008). *Inflating the beast: political incentives under uncertainty* (No. w13779). National Bureau of Economic Research.

Caballero, R. J., Farhi, E., & Gourinchas, P. O. (2008). *Financial crash, commodity prices and global imbalances* (No. w14521). National Bureau of Economic Research.

Cahyadin, M., & Ratwianingsih, L. (2020). External debt, exchange rate, and unemployment in selected ASEAN countries. *Jurnal Ekonomi & Studi Pembangunan*, *21*(1), 16-36.

Campos, J. E., Lien, D., & Pradhan, S. (1999). The impact of corruption on investment: Predictability matters. *World development*, *27*(6), 1059-1067.

Chang, H. F. (2008). The Economics of International Labor Migration and the Case for Global Distributive Justice in Liberal Political Theory. *Cornell Int'l LJ*, *41*, 1.

Chari, V. V., Christiano, L. J., & Kehoe, P. J. (1994). Optimal fiscal policy in a business cycle model. *Journal of polítical Economy*, *102*(4), 617-652.

Collins, C. (1999). 'Break the chains of debt!'international jubilee 2000 campaign demands deeper debt relief.

Cooper, R. N., Tarullo, D. K., & Williamson, J. (1999). Should capital controls be banished? *Brookings Papers on Economic Activity*, *1999*(1), 89-141.

Corbae, D., Stinchcombe, M. B., & Zeman, J. (2009). *An introduction to mathematical analysis for economic theory and econometrics*. Princeton University Press.

Dailami, M. (1999). *Managing risks of capital mobility*. The World Bank.

Depken, C. A., & Lafountain, C. L. (2006). Fiscal consequences of public corruption: Empirical evidence from state bond ratings. *Public Choice*, *126*(1-2), 75-85.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American statistical association*, *74*(366a), 427-431.

Dickey, D. A., & Fuller, W. A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica: journal of the Econometric Society*, 1057-1072.

Dobson, W., & Jacquet, P. (1998). Financial Services Liberalization in the World Trade Organization. *Peterson Institute Press: All Books*.

Drábek, Z., & Laird, S. (2001). *Can trade policy help mobilize financial resources for economic development?* (No. 01/16). CREDIT Research Paper.

Eichengreen, B., & Mody, A. (2000). Lending booms, reserves and the sustainability of short-term debt: inferences from the pricing of syndicated bank loans. *Journal of Development Economics*, *63*(1), 5-44.

Engle, R. F., & Granger, C. W. (1987). Co-integration and error correction: representation, estimation, and testing. *Econometrica: journal of the Econometric Society*, 251-276.

Esener, S. C., & Ipek, E. (2015). Expanding effects of military expenditures on external debt in developing countries. *Journal of Business Economics and Finance*, 4(4).

Farid, A., Ashraf, J., & Khan, A. H. (1995). Volatility at Karachi Stock Exchange [with Comments]. *The Pakistan Development Review*, *34*(4), 651-657.

Friedman, E., Johnson, S., Kaufmann, D., & Zoido-Lobaton, P. (2000). Dodging the grabbing hand: the determinants of unofficial activity in 69 countries. *Journal of public economics*, *76*(3), 459-493.

Gavin, B. (2001). *The European Union and globalisation: towards global democratic governance*. Edward Elgar Publishing.

Gouvêa, R. R., & Lima, G. T. (2010). Structural change, balance-of-payments constraint, and economic growth: evidence from the multisectoral Thirlwall's law. *Journal of Post Keynesian Economics*, *33*(1), 169-204.

Gyimah-Brempong, K. (2001). Alcohol availability and crime: Evidence from census tract data. *Southern Economic Journal*, 2-21.

Hameed, A., Ashraf, H., & Siddiqui, R. (2006). Stock market volatility and weak-form efficiency: evidence from an emerging market [with Comments]. *The Pakistan Development Review*, 1029-1040.

Hussain, C. M., Shah, S. Z. A., Sohail, N., & Mahmood, I. (2002). *The Impact of Financial Liberalization on East Asian Financial Crisis During 1990s: Lessons for Pakistan* (Doctoral dissertation, University of Glasgow).

Ibrahim, M. E., & Alqaydi, F. R. (2013). Financial literacy, personal financial attitude, and forms of personal debt among residents of the UAE. *International Journal of Economics and Finance*, *5*(7), 126-138.

Ilzetzki, E. (2011). *Fiscal policy and debt dynamics in developing countries*. The World Bank.

Jeffrey, D. (2002). millenium development goals report. UNDP.

Jermann, U., & Quadrini, V. (2012). Macroeconomic effects of financial shocks. *American Economic Review*, *102*(1), 238-71.

Johansen, S. (1991). Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models. *Econometrica: journal of the Econometric Society*, 1551-1580.

Johansen, S. (1992). Determination of cointegration rank in the presence of a linear trend. *Oxford Bulletin of Economics and Statistics*, *54*(3), 383-397.

Johansen, S., & Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration—with appucations to the demand for money. *Oxford Bulletin of Economics and statistics*, *52*(2), 169-210.

Johnson, S., Kaufmann, D., Shleifer, A., Goldman, M. I., & Weitzman, M. L. (1997). The unofficial economy in transition. *Brookings papers on economic activity*, *1997*(2), 159-239.

Kato, P., & Hagendorff, J. (2010). Distance to default, subordinated debt, and distress indicators in the banking industry. *Accounting & Finance*, *50*(4), 853-870.

Kenen, P. B. (2001). *The international financial architecture: What's new? What's missing?* (Vol. 61). Peterson Institute.

Khapoya, V. (2015). *The African Experience*. Routledge.

Kisunko, G., & Kapoor, K. (1999). *Estimating the effects of corruption: implications for Bangladesh*. The World Bank.

Klein, R., & Marmor, T. (2006). Reflections on policy analysis. In *The Oxford handbook of political science*.

Kono, M., & Schuknecht, L. (1999). *Financial services trade, capital flows, and financial stability* (No. ERAD-98-12). WTO Staff Working Paper.

Kose, M. A., Prasad, E. S., & Terrones, M. E. (2006). How do trade and financial integration affect the relationship between growth and volatility? *Journal of international Economics*, *69*(1), 176-202.

Krusell, P., & Rios-Rull, J. V. (1999). On the size of US government: political economy in the neoclassical growth model. *American Economic Review*, *89*(5), 1156-1181.

Kumar, R. and Debroy, B. (1999). The Asian Crisis: An Alternative View. *Asian Development Bank*, Staff Paper 59, 3: 9-11.

Lambsdorff, J. G. (2003). How corruption affects productivity. *Kyklos*, *56*(4), 457-474.

Laurenceson, J., & Chai, J. C. (2003). *Financial reform and economic development in China*. Edward Elgar Publishing.

Levine, R. (2005). Finance and growth: theory and evidence. *Handbook of economic growth*, *1*, 865-934.

Leybourne, S. J., & Newbold, P. (2003). Spurious rejections by cointegration tests induced by structural breaks. *Applied economics*, *35*(9), 1117-1121.

Lucas Jr, R. E., & Stokey, N. L. (1983). Optimal fiscal and monetary policy in an economy without capital. *Journal of monetary Economics*, *12*(1), 55-93.

Lumsdaine, R. L., & Papell, D. H. (1997). Multiple trend breaks and the unit-root hypothesis. *Review of economics and Statistics*, *79*(2), 212-218.

Mah, J. S. (2000). An empirical examination of the disaggregated import demand of Korea—the case of information technology products. *Journal of Asian Economics*, *11*(2), 237-244.

Malik, S., Mahmood-ul-Hassan, & Hussain, S. (2006). Fiscal Decentralisation and Economic Growth in Pakistan. *The Pakistan Development Review*, 845-854.

Marcet, A., & Scott, A. (2009). Debt and deficit fluctuations and the structure of bond markets. *Journal of Economic Theory*, *144*(2), 473-501.

Mauro, P. (1995). Corruption and growth. *The quarterly journal of economics*, *110*(3), 681-712.

Mauro, P. (1997). The effects of corruption on growth, investment, and government expenditure: a cross-country analysis. *Corruption and the global economy*, *83*, 87.

Mendoza, E. G., & Oviedo, P. M. (2009). Public debt, fiscal solvency and macroeconomic uncertainty in Latin America: the cases of Brazil, Colombia, Costa Rica and Mexico. *Economía mexicana. Nueva época*, *18*(2), 133-173.

Mendoza, E. G., & Tesar, L. L. (2005). Why hasn't tax competition triggered a race to the bottom? Some quantitative lessons from the EU. *Journal of monetary economics*, *52*(1), 163-204.

Mishkin, F. S. (2006). *The next great globalization: how disadvantaged nations can harness their financial systems to get rich*. Princeton University Press.

Mishkin, F. S. (2008). How should we respond to asset price bubbles. *Financial Stability Review*, *12*(1), 65-74.

Mo, P. H. (2001). Corruption and economic growth. *Journal of comparative economics*, *29*(1), 66-79.

Moreno-Brid, J. C. (1998). On capital flows and the balance-of-payments-constrained growth model. *Journal of Post Keynesian Economics*, *21*(2), 283-298.

Narayan, P. K. (2005). The saving and investment nexus for China: evidence from cointegration tests. *Applied economics*, *37*(17), 1979-1990.

Nelson, C. R., & Plosser, C. R. (1982). Trends and random walks in macroeconmic time series: some evidence and implications. *Journal of monetary economics*, *10*(2), 139-162.

Obstfeld, M., & Taylor, A. M. (1998). The great depression as a watershed: international capital mobility over the long run. In *The defining moment: The Great Depression and the American economy in the twentieth century* (pp. 353-402). University of Chicago Press.

Pattichis, C. A. (1999). Price and income elasticities of disaggregated import demand: results from UECMs and an application. *Applied Economics*, *31*(9), 1061-1071.

Perron, P. (1989). The great crash, the oil price shock, and the unit root hypothesis. *Econometrica: journal of the Econometric Society*, 1361-1401.

Perron, P. (1997). Further evidence on breaking trend functions in macroeconomic variables. *Journal of econometrics*, *80*(2), 355-385.

Perron, P., & Qu, Z. (2007). A simple modification to improve the finite sample properties of Ng and Perron's unit root tests. *Economics letters*, *94*(1), 12-19.

Persson, T., & Svensson, L. E. (1989). Exchange rate variability and asset trade. *Journal of Monetary Economics*, *23*(3), 485-509.

Pesaran, M. H., & Pesaran, B. (1997). Working with microfit 4.0. *Camfit Data Ltd, Cambridge*.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, *16*(3), 289-326.

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American statistical Association*, *94*(446), 621-634.

Petrou, A. P. (2014). Bank foreign affiliate performance in the face of pervasive and arbitrary corruption. *European Management Review*, *11*(3-4), 209-221.

Petrou, D., Rabinovich, A., & Adam, H. (2014). *U.S. Patent No. 8,670,597*. Washington, DC: U.S. Patent and Trademark Office.

Quadrini, V. (2005). Policy commitment and the welfare gains from capital market liberalization. *European Economic Review*, *49*(8), 1927-1951.

Reinhart, C. M., & Rogoff, K. S. (2011). A decade of debt (No. w16827). National Bureau of Economic Research.

Romero, J. P., & McCombie, J. S. (2016). The Multi-Sectoral Thirlwall's Law: evidence from 14 developed European countries using product-level data. *International Review of Applied Economics*, *30*(3), 301-325.

Schneider, F. (2005). Shadow economies around the world: what do we really know? *European Journal of Political Economy*, *21*(3), 598-642.

Schneider, F., Buehn, A., & Montenegro, C. E. (2010). Shadow economies all over the world: New estimates for 162 countries from 1999 to 2007. *World Bank policy research working paper*, (5356).

Şenturk, İ., & Ali, A. (2022). The Relationship between Institutional Quality and Welfare: Panel-SUR Analysis on BRICS-T Countries. *Journal of Policy Research*, *8*(1), 45-52.

Shin, K., & Sohn, C. H. (2006). Trade and financial integration in East Asia: effects on co-movements. *World Economy*, *29*(12), 1649-1669.

Siddiqui, R., & Malik, A. (2001). Debt and economic growth in South Asia. *The Pakistan Development Review*, 677-688.

Song, Z., Storesletten, K., & Zilibotti, F. (2012). Rotten parents and disciplined children: A politico-economic theory of public expenditure and debt. *Econometrica*, *80*(6), 2785-2803.

Stulz, R. M. (2005). The limits of financial globalization. *The journal of finance*, *60*(4), 1595-1638.

Sulehri, F. A., & Ali, A. (2020). Impact of political uncertainty on Pakistan stock exchange: An event study approach. *Journal of Advanced Studies in Finance*, *11*(2), 194-207.

Tanzi, V., & Davoodi, H. (1998). Corruption, public investment, and growth. In *The welfare state, public investment, and growth* (pp. 41-60). Springer, Tokyo.

Taylor, A. M. (1996). *International capital mobility in history: the saving-investment relationship* (No. w5743). National bureau of economic research.

Thirlwall, A. P. (1979). The balance of payments constraint as an explanation of the international growth rate differences. *PSL Quarterly Review*, *32*(128).

Thirlwall, A. P. (2012). Balance of payments constrained growth models: history and overview. *Models of balance of payments constrained growth*, 11-49.

Tiruneh, M. W. (2004). An empirical investigation into the determinants of external indebtedness. *Prague economic papers*, *3*(2004), 261-277.

Uppal, R. (1993). A general equilibrium model of international portfolio choice. *The Journal of Finance*, *48*(2), 529-553.

Van Vu, H., Tran, T. Q., Van Nguyen, T., & Lim, S. (2018). Corruption, types of corruption and firm financial performance: New evidence from a transitional economy. *Journal of Business Ethics*, *148*(4), 847-858.

Van Vu, H., Tran, T. Q., Van Nguyen, T., & Lim, S. Corruption. (2016). Types of corruption and firm financial performance: New evidence from a transitional economy. Journal of Business Ethics, 1–12.

Wei, S. J. (2000). How taxing is corruption on international investors? *Review of economics and statistics*, *82*(1), 1-11.

World Bank (2000). *World Development Reports*. The World Bank.

Yue, V., Schmitt-Grohe, S., Uribe, M., & Na, S. (2015). A model of the Twin Ds: optimal default and devaluation. In *2015 Meeting Papers* (No. 419). Society for Economic Dynamics.

Zivot, E., & Andrews, D. W. K. (2002). Further evidence on the great crash, the oil-price shock, and the unit-root hypothesis. *Journal of business & economic statistics*, *20*(1), 25-44.