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Attaining Economic Growth Through Financial Development and External Debts: Evidence from Emerging Economies

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Current study examines whether in emerging countries, financial development (FD) and external debts (EXD) has an impact on the economic growth (EG) collectively by focusing on two main debt theories i.e., debt overhang theory by Krugman & Debt-Laffer curve. Annual data on external debts (EXD), financial development (FD), trade openness, inflation, capital formation, debt servicing, population growth and economic growth are derived from the "World Development Indicators" (WDI) from the year 1980 to the year 2019 for the emerging countries: Brazil, China, Indonesia, Mexico, South Africa, Turkey, Nigeria, Pakistan, Poland, Russia, Thailand. Autoregressive distributed lag (ARDL) model is used to estimate the long-run relationships among the variables in the model, and the effect of EXD on EG is determined using the pool mean group (PMG) model. This study shows the negative and significant relationship between external debt (EXD) and GDP growth and positive and significant relationship is found between financial development (FD) and EXD in the long-run. Similarly, in the long-run, Debt servicing, trade openness and inflation have a significant and negative relationship with GDP growth While population growth and gross capital formation has significant and positive correlation with GDP growth.

Introduction

The gap between rich and poor today is much greater than what economists from the 18th and 19th centuries could have ever imagined. Developed countries are becoming more aware of how this economic inequality can hinder the growth of poorer nations. Social scientists are currently examining how the correlation between debt and economic growth impacts various nations. External funding has a significant impact on the elasticity of the relationship between foreign debt and economic growth in Nigeria. (Essien & Onwioduokit, 1998). If the return on investment from outside borrowing is higher than that of its cost of borrowing, then it is not a problem. To end poverty and improve living conditions, we must have focus on improving health, reducing inequality, education, tackling climate change, promoting economic growth and conserving oceans and forests. One of the objectives is to promote sustainable economic growth, higher productivity, and technological advancement by encouraging decent work and economic growth. (Eisenmenger et al., 2020).

Economic growth is a significant indicator of economic growth of any country. It refers to a rise in capacity, to manufacture goods and provide services, of any country over a certain period of time. This increase in production capacity is achieved by increasing the quantity and quality of production factors, such as industrial goods, schools, infrastructure, service sector, and capital goods (Gafur & Rochaida, 2022; Indayani & Hartono, 2020). For instance, a country can increase its industrial production capacity by investing in new technology, expanding manufacturing facilities, or improving the skills of its workforce. It can also improve its education system by building more schools, hiring more qualified teachers, and providing better educational resources. Similarly, a country can enhance its infrastructure by building new roads, bridges, and ports to ease the movement of goods and people. The service sector can also contribute to economic growth by providing employment opportunities and generating revenue for the country. Capital goods, such as machinery and equipment, can also be upgraded or expanded to increase production capacity. The ability of a country to enhance its production factors is crucial to increasing its production capacity and, ultimately, achieving economic growth. Achieving sustainable economic growth and development necessitates a commitment to investing in education, infrastructure, technology, and human capital, among other things.

Research by Nainggolan et al. (2021) and Gafur and Rochaida (2022) suggests that high economic growth can have a significant effect on poverty. This is because, as economic growth rises, production of goods and services increases, which in turn creates more jobs and increases per capita income, thereby reducing poverty levels. The increased income also makes it easier for people to meet their basic needs. Furthermore, study by Alrakhman and Susetyo (2022) indicate that high economic growth can also help reduce unemployment, which provides more opportunities for people to earn a living and support their families.

There are several factors that can influence economic growth, one of which is government expenditure. The calculation of Gross Domestic Product (GDP) can be done by dividing it into four parts, which are household consumption, government spending, investment, and net exports (export-import), as explained by Mangkoesoebroto and Algifari (1998), cited by Hikmah and Sugiharti (2022). Emerging market countries are seen as attractive destinations for investors due to their potential for economic growth. According to Dunning's eclectic paradigm, foreign investment can positively influence national economic productivity by transferring technology, management, and expertise from the investing country, leading to increased output and productivity. As a result, economic growth can occur, which in turn can attract more investors to invest in the country, as explained by Safitriani (2014). Lasbrey et al. (2018) research has demonstrated that foreign direct investment (FDI) can have a beneficial impact on the growth of the economies of nations that receive it.

The Ricardian Equivalence theory suggests that financing the government's budget deficit through external debt does not directly affect economic growth, according to Rachmadi (2013). However, excessive external debt can lead to a debt overhang, where the government's burden is higher than its capacity to pay, resulting in debt arrears. In such situations, the government may impose high taxes on private companies to compensate for underpayment under the contract, which can reduce incentives to save, invest, and engage in productive activities. This can lead to potential funds being used to pay off debt instead of investing, which may negatively impact economic growth.

The impact of external debt on a country's GDP can be both positive and negative. On one hand, it can lead to infrastructure development and short-term growth of economies. Conversely, excessive external debt can lead to a debt overhang and eventually become unsustainable, leading to a crisis that can shrink the economy. Onafowora and Owoye (2019) and Mumba and Li (2020) have found that external debt can have an adverse impact on the growth of GDP if it is not appropriately utilized and managed. This is because the state must pay interest on the debt and comply with the lender's policies, which limits its ability to set financial policies and use the borrowed funds at its discretion.

According to Agyeman et al. (2022), both capital flight and external debt can have a detrimental impact on economic growth. High levels of capital flight can exacerbate the negative effects of external debt on economic growth. Therefore, managing external debt in sub-Saharan Africa should prioritize reducing capital flight to promote economic growth. Musa et al. (2023) examined how public debt affects economic growth in 44 developing nations, considering the role of governance. The research has indicated that public debt inhibits economic growth at all levels. However, when good governance is present, public debt can promote economic growth to maximum level. Overall, the study suggests that governance is very crucial to boost up the economic growth.

Sharaf (2022) utilized the NARDL model to examine the impact of external debt on economic growth in Egypt. The findings revealed a significant and negative impact on economic growth from both negative and positive external debt shocks in the long term. The magnitude of the negative impact was greater than that of the positive effect. The study also discovered evidence that supports the concept of a specific ratio between external debt and GDP, beyond which external debt has an adverse impact on economic growth. Specifically, the negative impact on growth occurs when the ratio of external debt to GDP equals or surpasses 96.7%. Furthermore, the impact of external debt on economic growth is symmetrical in both the short and long term. Trade openness, which refers to the balance between a nation's exports and imports, can foster real economic growth by facilitating the allocation of resources efficiently, technology transfer, on-the-job learning, and foreign exchange provision. Various research studies indicate that trade openness has a substantial positive effect on economic growth and can enhance the quality of economic growth in the short and long run. Trade openness can also enhance productivity and efficiency in the medium term, according to Çevik et al. (2019) and Raghutla (2020).

In light of the challenges that emerging economies face in achieving sustainable economic growth while simultaneously managing external debt, there is a pressing need to examine the intricate relationship between economic growth, financial development, and external debt. This challenge is further compounded by the paucity of financial development in these economies. As a result, it is crucial to comprehend how financial development and external debt impact economic growth and how policy interventions can be crafted to attain sustainable economic growth while concurrently managing external debt. The current study delves into the impact of financial development and external debt on economic growth, taking into account publication bias and investigating variations in recorded estimates. The results of this study reveal a significant correlation between physical well-being, financial development, and economic growth. Furthermore, the study explores the connection between financial development and external debt on economic growth in emerging economies, with the aim of providing a deeper understanding of how these variables interact and the role of financial development in enhancing economic growth in the presence of external debt.

The rationale for examining the interplay among financial development, external debt, and economic growth lies in the desire to comprehend how developing countries can attain lasting and equitable economic advancement. Many developing nations are facing the challenge of managing their external debt while promoting economic growth. This issue is compounded by the lack of financial development, which is critical to mobilizing resources and promoting investment in the economy. Consequently, a comprehensive investigation into the management of financial development and external debt is indispensable to foster economic growth in developing nations. Indeed, the findings of this study can serve as a valuable resource for policymakers and academics alike in the field of development economics. The relationship among financial development, external debt, and economic growth is complex, and there is much debate on how best to manage

these factors to achieve sustained economic growth. By providing insights into the nature of this relationship, the study can inform policymakers on the design of effective policies to promote economic growth while managing external debt. Additionally, the study can contribute to the existing literature on the topic, particularly in the context of developing countries, by shedding light on new empirical evidence and exploring the potential differences in recorded estimates. Ultimately, the study has the potential to make a meaningful contribution to the broader goal of achieving sustainable and inclusive economic growth in emerging economies.

The primary objective of this study is to examine the intricate relationship between external debt (EXD), financial development (FD), and economic growth (EG) in emerging markets. Using Pakistan as a case study, this research aims to explore how EXD and FD are interrelated and how they influence the EG of developing economies. While there are numerous studies on the relationship between economic growth and external debt, there is a dearth of research on the connection between EXD and FD and their impact on EG in developing economies. Thus, this study seeks to fill this gap in the literature and provide critical insights for policymakers and economists. The findings of this research can aid in the development of effective policies that support sustainable economic growth, address external debt issues, and foster the growth of the country's financial sector. The study's results can also inform the government's decision-making process regarding policies that affect external debt, financial sector development, and overall economic growth.

The research objectives of this study are multi-fold. Firstly, the study aims to investigate the relationship between financial development and economic growth, with the intention of understanding how the former influences the latter. Secondly, the study aims to examine the influence of external debts on economic growth, with a view to understanding the extent to which such debts have an impact on economic growth. Thirdly, the study aims to examine the influence of debt servicing on economic growth, with a view to understanding the role that debt servicing plays in economic growth. Fourthly, the study aims to examine the influence of inflation on economic growth, with the intention of understanding how inflation affects economic growth. Fifthly, the study aims to examine the influence of gross capital formation on economic growth, with the intention of understanding the role of investment in economic growth. Sixthly, the study aims to examine the influence of population growth rate on economic growth, with the intention of understanding how demographic changes affect economic growth. Finally, the study aims to examine the influence of trade openness on economic growth, with the intention of understanding how trade can promote economic growth.

The research questions for this study aim to investigate the relationship between various economic factors and economic growth in emerging markets, specifically using Pakistan as an example. The first research question explores the influence of financial development (FD) on economic growth (EG), while the second research question looks at the influence of external debts (EXD) on economic growth (EG). The third research question investigates the impact of debt servicing (DS) on economic growth (EG), and the fourth research question focuses on the influence of inflation (INF) on economic

growth (EG). Additionally, the study aims to examine the impact of gross capital formation (GCF) on economic growth (EG), population growth rate (PGR) on economic growth (EG), and trade openness (TDO) on economic growth (EG). The findings from this study will provide valuable insights into the complex relationships among these factors and their impact on economic growth in developing economies. The results can be used by policymakers to develop effective policies that promote sustainable economic growth and address external debt issues while supporting the growth of the financial sector. Remaining paper will proceed in this way: Section 2 contains literature review, operationalization of variables, framework; Section 3 consists of methodology; Section 4 consists of results; Section 5 consists of discussions and section 6 consists of conclusion

Literature Review

In empirical literature relation between FD and EG has great importance and argued topic. A huge number of literatures are available concluding FD that shows a positive and main part in the growth of economy. In 1966, Patrick noted that in a market-oriented economy that utilizes a resource allocation price system, the process of economic growth over time is marked by an increase in both the variety and quantity of financial institutions, resulting in a significant expansion of the financial sector beyond its previous proportion. According to Gregorio and Guidotti (1995), the relationship between long-term economic growth and financial development (FD) was empirically explained using the ratio of private-sector bank credit to GDP. This measure was found to have a positive association with growth in a comprehensive study across various countries, but the effect varied across different countries, and in the case of Latin America, the panel results showed a negative effect.

Khan and Senhadji (2003) conducted a comprehensive analysis of the relationship between FD and EG using a large sample of countries. Their findings indicated that FD had a positive impact on economic growth. However, the size of this effect varied depending on the method of measurement, the frequency of the data, and the functional form of the relationship between FD and EG. For the period 1952–2001, Liang and Jian-Zhou (2006) they looked at the relation between financial progress and EG in China. A VAR framework was used; the empirical results show that financial stability and EG are connected in a unidirectional manner. In a trivial vector autoregressive (VAR) system, Abu-Bader and Abu-Qarn (2008) between 1960 and 2001, also checked causal association between FD and EG in Egypt. Their findings are same as before except that causality was bi-directional. Zhang et al. (2012) also examined positive relation between FD and EG by using the data of 286 Chinese cities from 20021 to 2006. Rudra et al. (2016) examined relations between FD, EG and innovation in 18 Eurozone countries between 1961 and 2013, using panel vector auto-regressive model. Our analytical findings suggest that Eurozone's financial sector improvement and growing innovative capability add to regions long-term. Asteriou and Spanos (2019) analyzed relation among FD and EG in the light of the recent financial issues and crisis by using a panel data collection of 26 European Union nations from 1990 to 2016. Findings indicated that FD encouraged EG before the issues or crisis, while economic activity was hampered

after the crisis. Nigo and Gibogwe (2023) applied GMM method on panal data of 14 SSA countries from 1990 to 2020. Results indicate a positve impact of FD on EG in case of improvement in institutional factors.

Third World debt in the 1980s became so high that many economists consider it to be the world's biggest economic challenge. In the 1970s, debt rose at an annual rate of 21%, largely due to an enormous rise in non-concessional commercial bank loans. The debt overhang theory explains the strongly negative association among growth and debt. Debt extension has an effect on development not only via investment but also through output (Cordella et al., 2010). Further domestic and foreign investments, according to this theory, are prevented where the future debt of country becomes higher than its capability to repay it (Krugman, 1988). Chowdhury (2001) used two separate nation groups by using next level boundary analysis for random coefficient approach, sensitivity tests, fixed and the mixed and random coefficient method indicates that each of the four debt indicators has a significant negative impact on EG in both national classes. It was observed by the researchers that the neoclassical growth model was utilized to investigate the linear and non-linear impacts of debt on investment and growth.

Ayadi and Ayadi (2008) were studied Nigeria's and South Africa's foreign debts in a different way. The researchers found a negative impact of debt servicing requirements on growth in South Africa and Nigeria. While South Africa has been able to use external loans to speed up its development better than Nigeria, according to the study. Additionally, Malik et al. (2010) employed time series econometric techniques to analyze the relationship between economic development and foreign debt in Pakistan between 1972 and 2005. EXD has a -ve and significant relationship with EG, according to the study. Using Nigeria as a case study, Ogunmuyiwa (2011) investigated whether EXD stimulates economic development in developing countries. In regression equation different econometric methods applied on time series data from 1970 to 2007. A weak causation of EXD and growth was present and negligible in Nigeria, suggesting that there is no causality between EXD and EG. Ramzan and Ahmad (2014) explores the effect of EXD over the period 1970-2009 on EG in Pakistan.

The empirical investigation of the impact of external debt (EXD) on economic growth (EG) used the co-integration methodology of autoregressive distributed lag (ARDL). The findings indicated that EXD has a negative effect on EG. Siddique et al. (2017) also proved the same results. Benli (2020) seeks to examine the long-term dynamics of the EXD burden-EG nexus and the nonlinearity of Turkey's external debt - economic growth association for the period 1970-2018. Using cointegration method of ARDL. The empirical results suggest that the burden of EXD is harming Turkey's economic development. Udeh et al. (2016) examined to know how foreign debt influenced Nigeria's economic development between 1980 and 2013 by using OLS. They discovered that EXD had a favorable short-term link with Gross Domestic Product, however a poor long-term link. Ale et al. (2023) used the CS-ARDL method on a panel of five SA countries

for the period of 1980-2020 and concluded that a significant relation between EXD and EG exists, both in short run and long run.

EXD and FD are two most important factors affecting the EG of any country. Here are some studies present in literature showing the combined influence on EG.

Clements et al. (2003) investigated how a significant decrease in excess debt service (EXD) for heavily indebted emerging nations might directly boost annual per capita income growth by about 1%. By affecting public spending, cuts to the EXD service could also indirectly stimulate the economy. If, without raising the budget deficit, 50% of all debt service relief was directed for such resolutions, growth could increase by an additional 0.5 percentage point a year in some HIPCs.

This study focuses on briefly discussed some economic theories relating to economic growth like Krugman debt overhang theory, according to Krugman (1988), a higher debt stock alters the benefits of both the creditor and the debtor economies, but debt relief may be beneficial to both parties in the long run. Debt relief refers to the reorganization of debt terms in order to provide some measure of debt relief to the indebted nation. This includes lowering the outstanding principal amount of loans, lowering the interest rate on loans, and revising the term of loans in order to provide relief to the debtor country. 2ndly According to Krugman (1988), a higher debt stock alters the benefits of both the creditor and the debtor economies, but debt relief may be beneficial to both parties in the long run. Debt relief refers to the reorganization of debt terms in order to provide some measure of debt relief to the indebted nation. This includes lowering the outstanding principal amount of loans, lowering the interest rate on loans, and revising the term of loans in order to provide relief to the debtor country. As mentioned above there is very little research present on impact of EXD on financial-growth nexus. To extend the literature this study was adopted. Following are the hypotheses of the current study.

H_1: There is correlation between financial development (FD) and economic growth (EG)

H_2: There is correlation between external debts (EXD) and economic growth (EG)

H_3: There is correlation between debt servicing (DS) and economic growth (EG)

H_4: There is correlation between inflation (INF) and economic growth (EG)

H_5: There is correlation between gross capital formation (GCF) and economic growth (EG)

H_6: There is correlation between population growth rate (PGR) and economic growth (EG)

H_7: There is correlation between trade openness (TDO) and economic growth (EG

Research Methodology

Annual data on EXD, FD, trade openness, inflation, capital formation, debt servicing, population growth and economic development are derived from the WDI World Development indicators from 1980 to 2019. This study uses the data over the period from 1980–2019 across

emerging countries; namely Brazil, China, Indonesia, Mexico, South Africa, Turkey, Nigeria, Pakistan, Poland, Russia, Thailand. Emerging market will constitute the sample for the research.

Independent variables in this study are EXD and Interest payment on the debt. Dependent variable of this study is EG. Inflation, debt servicing, gross capital formation, trade openness, and population growth rate are all control variables based on traditional neoclassical growth theory.

Growth rate of Gross domestic product (annual %) is used for EG following K. M. Guei (2019). Investment or public investment refers to any method for increasing the amount of capital for investment and production purposes. Percentage of GDP is used for gross capital formation following Ibrahim and Rajah (2016). Inflation (INF) is introduced to capture macroeconomic consistency and the business climate (Guei, 2019). TDS is total debt service to exports ratio (to capture crowding out effects) (Frimpong & Oteng-Abayie 2006). Human capital was proxied by population growth rate (Zaghdoudi, 2019).

Some researchers, such as Gantman and Dabos (2012) have devised their own metrics to measure the FD, such as the proportion of domestic credit assets to GDP or current liabilities to GDP. Here we measured FD alternatively by domestic credit by private sector by bank (% of GDP) (as proxy for banking sector development) following Lamia & Samir (2017). Trade openness (Open) is one more important explanatory variable. Proxy used for EXD is the EXD as a percentage of GNI, previously used by Taha Zaghdoud (2019).

Computing descriptive statistics is an important basic step in any research project, and, this should always be performed prior to doing inferential statistical comparisons. While correlation analysis used to check the influence of one variable on another variable positively or negatively. Autoregressive distributed lag (ARDL) model is used to estimate the long-run relationship among the variables, and the effect of EXD on EG is determined using the pool mean group (PMG) model. Pesaran et al. (1999) and Pesaran et al. (2001) developed the ARDL bounds testing method for cointegration. The key limitation of traditional cointegration methods is that these methods make, all the constructs in the specific model, non-stationary at different levels but they remain combined in the same order. The current ARDL solution, resolves this problem since it works regardless of the order in which the regressors are integrated, whether I (0), I (1), or a mixture of them. Apart from that, the ARDL model has the advantage of allowing for the collection of an appropriate number of lags in a general-to-specific modelling framework to track the method of data creation.

To establish the order of cointegration, the 1st stage is to run unit root tests. Second, the ARDL uses the Wald test to determine whether the variables have a long-term connection. Diagnostic testing is the third phase. The ARDL regression model is assessed and reparametrized into an error correction model in the fourth step. The ECM provides data on the long-term attitude of the model's factors.

Econometric model is shown as Equation (1):

$$\Delta RGDP_{it} = \beta_0 + \beta_1 DEBT_{it} + \beta_2 FD_{it} + \beta_3 DS_{it} + \beta_3 INF_{it} + \beta_4 PGR + \beta_5 GCF_{it} + \beta_6 TDO_{it} + \mu_i + \varepsilon_{it}$$

According to the ARDL approach of cointegration by Pesaran et al. (2001) following equation is being derived:

$$\Delta RGDP_{it} = \beta_{it} + \beta_{10i}\Delta DEBT_{it} + \beta_{20i}\Delta FD_{it} + \beta_{30i}\Delta DS_{it} + \beta_{30i}\Delta INF_{it} + \beta_{40i}\Delta PGR_{it} + \beta_{50i}\Delta GCF_{it} + \beta_{60i}\Delta TDO_{it} + \beta_{11i}\Delta DEBT_{it-1} + \beta_{21i}\Delta FD_{it-1} + \beta_{31i}\Delta DS_{it-1} + \beta_{31i}\Delta INF_{it-1} + \beta_{41i}\Delta PGR_{it-1} + \beta_{51i}\Delta GCF_{it-1} + \beta_{61i}\Delta TDO_{it-1} + \mu_i + \varepsilon_{it}$$

Given below ECM equation is being derived by a single-vector autoregressive & the lag length criterion:

$$\Delta RGDP = \beta_0 + \sum_{j=1}^{p} \beta_1 \Delta RGDP_{it-j} + \sum_{j=0}^{p} \beta_2 \Delta DEBT_{it-j} + \sum_{j=0}^{p} \beta_3 \Delta FD_{it-j} + \sum_{j=0}^{p} \beta_3 \Delta DS_{it-j} + \sum_{j=0}^{p} \beta_4 \Delta INF_{it-j} + \sum_{j=0}^{p} \beta_5 \Delta PGR_{it-j} + \sum_{j=0}^{p} \beta_6 \Delta GCF_{it-j} + \sum_{j=0}^{p} \beta_7 \Delta TDO_{it-j} + \beta_8 ECT_{it-j}$$

Where ECT_{it-j} is the error correction term can be explained as Equation (4):

$$ECT_{it} = \Delta RGDP_{it} - \beta_0 - \sum_{j=1}^{p} \beta_1 \Delta RGDP_{it-j} - \sum_{j=0}^{p} \beta_2 \Delta DEBT_{it-j} - \sum_{j=0}^{p} \beta_3 \Delta FD_{it-j} - \sum_{j=0}^{p} \beta_3 \Delta DS_{it-j} - \sum_{j=0}^{p} \beta_4 \Delta INF_{it-j} - \sum_{j=0}^{p} \beta_5 \Delta PGR_{it-j} - \sum_{j=0}^{p} \beta_6 \Delta GCF_{it-j} - \sum_{j=0}^{p} \beta_7 \Delta TDO_{it-j}$$

Here, the error correction term is speed of adjustment. It shows how the estimate of the long-run equilibrium error term is adjusted for short-run disequilibrium. As a result, much of the disequilibrium is being addressed over time.

Results analysis & discussions:

In this section, the study analyzes the empirical model and interprets and discusses the results.

The first step in analysis is to check if the time series are stationary, and if they aren't, the order of integration is crucial, because no I(2) is allowed in the ARDL model. We utilize a range of tests in panel datasets to check the stationarity, considering the sample size and the tests' asymptotic features: the Breitung test (Breitung & Das, 2005), the Levin–Lin–Chu test (Levin et al. , 2002),

the Fisher-ADF (Choi, 2001) and the Im–Pesaran– Shin test (Im et al., 2003). In level, the unit root test results attained from ADF, LLC, PP and IPS indicated that the variables like DS, RGDP, GCF, INF and TDO are stationary at level or constant or at trend. While DEBT and FD series are stationary at first level (I (1)). As a result, the model's variables are a combination of I(1) and I(0), which is required to estimate a panel ARDL.

The bound F-statistic calculation or the Wald test is used in the 2nd phase to examine the existence of a long-term relationships among the variables. The hypothesis that the lag level variables' coefficients are equal to zero will be tested.

H_0: There is no cointegration among the variables. H1: There is cointegration among the variables. As F-statistics value is significant because p value is lower than 5%. Here H_0 is rejected and H_1 is accepted.

TableNo1: Wald Test Results:

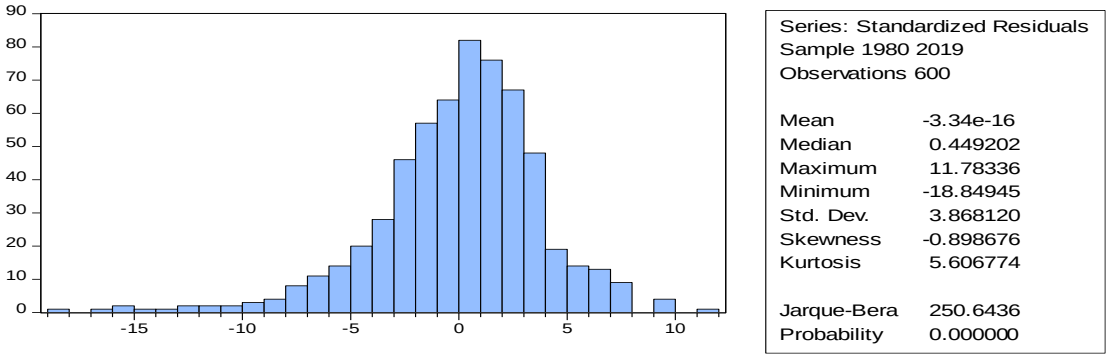
Test Statistic	Value	Prob.
F-statistic	12462.56	0.0000

Next for a panel of emerging countries, a diagnostic test is performed. The findings in Table 42 show that the model is suitable for the analysis. The panel noticed residual normalcy in emerging countries. As a result, the diagnostic test for the ARDL model is passed.

H_0= residual is normally distributed

H_1= residual is not distributed normally.

Table No 2: Diagnostic test results



The long run model is represented in table 4.3, The key variable, EXD, is -ve and significantly associated to GDP growth, according to the model's baseline data. This assessment is in some ways in line with the findings of the study of Pattillo et al. (2002) & Silva (2020). In this research second main variable is FD (FD), which is positively and significantly associated to GDP growth. These outcomes are somehow same as the study of FanYang (2019) and Hussain et al. (2021). The other factors are consistent with the a priori prediction. In the long run, debt servicing, trade openness,

and inflation all have a -ve and considerable impact on GDP growth. In the long run, population growth and gross capital formation are +ve and significant bonding to EG.

Table No 3: Panel ARDL Long Run Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DEBT	-0.073738	0.008278	-8.908207	0.0000
DS	-0.036769	0.013596	-2.704373	0.0074
PGR	0.597372	0.238563	2.504039	0.0130
FD	0.022003	0.004772	4.611034	0.0000
GCF	0.155899	0.013518	11.53262	0.0000
INF	-0.001247	0.000515	-2.420350	0.0163
TDO	-0.046672	0.003661	-12.74905	0.0000

Table No 4: Short Run Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
C	-0.014505	0.142744	-0.101616	0.9191
D(DEBT)	-0.152571	0.015250	-10.00477	0.0000
D(DS)	-0.048109	0.019096	-2.519274	0.0120
D(PGR)	1.624170	2.190227	0.741553	0.4587
D(FD)	0.029066	0.016627	1.748126	0.0810
D(GCF)	0.063066	0.035480	1.777497	0.0760
D(INF)	-0.001372	0.000333	-4.124439	0.0000
D(TDO)	0.011178	0.019706	0.567236	0.5708
ECT(-1)	-0.523215	0.034365	-15.22523	0.0000

Table 4 shows the results of the short run ECM. In the short run, the EXD coefficient is significant and has a negative relationship with GDP growth rate. The strong and negative relationship between debt and EG is same like KM Guei's (2019). In the short run, the FD coefficient is insignificant and positively associated with GDP growth. The debt servicing coefficients on the debt, as well as inflation, are significant. In the short run, both variables are influencing significantly and negatively on RGDP. These results are consistent with Abdulaziz & Kabir (2020). In the short run, the coefficients of gross capital formation, population growth and trade openness are insignificant. The error correction coefficient ECMt-1 represents the speed with which the dynamic model adjusts to regain equilibrium after a disruption. In the full panel ARDL regression, the value of coefficient is -0.523215. This value imply that equilibrium is reached in the period of less than two years. The results are consistent with the study (Awan and Qasim, 2020).

Conclusion

This research observed the short and long run causal link of FD, EXD and EG. This research is about how both variables influencing the EG collectively in emerging countries from 1979 to 2019. This study is carried to make a clear picture of tri-lateral relationship of EXD, FD and EG. The core consequences of the model indicating that the core variable, EXD has significant and negative relationship with GDP growth rate in long run. In this research second main variable is FD (FD), which is positively and significantly related to EXD in long-run.

These findings have significant policy implications for developing market policymakers. Firstly, they should be cautious about accumulating debt as a method of assisting income growth. Second, the findings show that fiscal policies lose their effectiveness with time, implying that monetary policies might play a part in emerging nations.

Future studies should consider the impact of political variables on FD and debt accumulation, and it should be expanded to include additional areas and nations so that comparisons may be made. In the future, FD might be used as a mediator or moderator in the casual nexus of EXD and EG.

References

Abu-Bader, S., & Abu-Qarn, A. S. . (2008). Financial development and economic growth: The Egyptian experience. *Journal of Policy Modeling*, 30(5), 887-898.

Adamu, I. M., & Rasiah, R. . (2016). External debt and growth dynamics in Nigeria. *African Development Review*, *28(3)*, 291-303.

Aggarwal, R., Demirguc-Kunt, A., & Martinez Peria, M. S. (2006). Do workers' remittances promote financial development? *The World Bank*.

Agyeman, G., Sakyi, D., & Oteng-Abayie, E. F. (2022). External debt and economic growth in selected sub-Saharan African countries: The role of capital flight. Research in Globalization, 5, 100091.

Ale, S. A., Islam, M. S., & Nessa, H. T. . (2023). Does External Debt Affect Economic Growth: Evidence from South Asian Countries. *International Journal of Economics and Financial Issues, 13(1)*, 83.

Alrakhman, D., & Susetyo, D. (2022, March). Effect of Unemployment Rate, Inequality and Investment Against Economic Growth on The Island of Sumatra. In 7th Sriwijaya Economics, Accounting, and Business Conference (SEABC 2021) (pp. 49-57). Atlantis Press.

Asteriou, D., & Spanos, K. . (2019). The relationship between financial development and economic growth during the recent crisis: Evidence from the EU. *Finance Research Letters*, 28, 238-245.

Awan, A. G., & Qasim, H. . (2020). The impact of external debt on Economic Growth of Pakistan. *Global Journal of Management, Social Scienes and Humanities, 6(1)*, 30-61.

Ayadi, F. S., & Ayadi, F. O. . (2008). The impact of external debt on economic growth: A comparative study of Nigeria and South Africa. *Journal of sustainable development in Africa, 10(3)*, 234-264.

Benli, M. (2020). External debt burden–economic growth nexus in Turkey. *Sosyal Bilimler Araştırma Dergisi*, 9(1), 107-116.

Breitung, J. (2001). *The local power of some unit root tests for panel data*. Emerald Group Publishing Limited.

Breitung, J., & Das, S. . (2005). Panel unit root tests under cross-sectional dependence. *Statistica Neerlandica, 59(4)*, 414-433.

Cevik, E. I., Atukeren, E., & Korkmaz, T. (2019). Trade openness and economic growth in Turkey: A rolling frequency domain analysis. Economies, 7(2), 41.

Choi, I. . (2001). Unit root tests for panel data. *Journal of international money and Finance, 20(2)*, 249-272.

Chowdhury, A. (2001). External debt and growth in developing countries: A sensitivity and causal analysis. *WIDER-Discussion Papers*.

Clements, B., Bhattacharya, R., & Nguyen, T. Q. . (2003). External debt, public investment, and growth in low-income countries.

Cordella, T., Ricci, L. A., & Ruiz-Arranz, M. . (2010). Debt overhang or debt irrelevance? *IMF Staff Papers, 57(1)*, 1-24.

De Gregorio, J., & Guidotti, P. E. (1995). Financial development and economic growth. *World development*, 23(3), 433-448.

Dey, S. R., & Tareque, M. (2020). External debt and growth: Role of stable macroeconomic policies. *Journal of Economics, Finance and Administrative Science.*, 50-62.

Easterly, W., & Levine, R. . (1997). Africa's growth tragedy: policies and ethnic divisions. *The quarterly journal of economics*, 1203-1250.

Eisenmenger, N., Pichler, M., Krenmayr, N., Noll, D., Plank, B., Schalmann, E., ... & Gingrich, S. (2020). The Sustainable Development Goals prioritize economic growth over sustainable resource use: a critical reflection on the SDGs from a socio-ecological perspective. *Sustainability Science*, 15, 1101-1110.

Essien, E. A., & Onwioduokit, E. A. . (1998). *Nigeria's economic growth and foreign debt: an analytical re-examination.* Nigeria : Central Bank of Nigeria, *Research Department.*36 (1). 22 - 50.

Fishkin, J., Keniston, K., & McKinnon, C. . (1973). Moral reasoning and political ideology. *Journal of Personality and social Psychology, 27(1)*, 109.

Frimpong, J. M., & Oteng-Abayie, E. F. . (2006). The impact of external debt on economic growth in Ghana: a cointegration analysis. *Journal of Science and Technology (Ghana), 26(3)*, 122-131.

Gantman, E. R., & Dabos, M. P. (2012). A fragile link? A new empirical analysis of the relationship between financial development and economic growth. *Oxford Development Studies, 40(4)*, 517-532.

Goldsmith, R. W. (1969). Financial structure and development. *No. HG174 G57*.

Guei, K. M. . (2019). External debt and growth in emerging economies. *international Economic Journal, 33(2),* , 236-251.

Hermes, N., & Lensink, R. . (2003). Foreign direct investment, financial development and economic growth. *The journal of development studies*, 40(1), 142-163.

Hikmah, C. C., & Sugiharti, R. (2022). Dinamika Perekonomian Indonesia Sisi Pengeluaran: Sebelum dan Setelah Adanya Covid-19. Jurnal Ecodemica: Jurnal Ekonomi, Manajemen Dan Bisnis, 6(1), 11-18.

Hussain, A., Oad, A., Ahmad, M., Irfan, M., & Saqib, F. . (2021). Do financial development and economic openness matter for economic progress in an emerging country? Seeking a sustainable development path. *Journal of Risk and Financial Management, 14(6)*, 237.

Im, K. S., Pesaran, M. H., & Shin, Y. . (2003). Testing for unit roots in heterogeneous panels. *Journal of econometrics, 115(1)*, 53-74.

Indayani, S., & Hartono, B. (2020). Analisis pengangguran dan pertumbuhan ekonomi sebagai akibat pandemi covid-19. *Perspektif: Jurnal Ekonomi Dan Manajemen Akademi Bina Sarana Informatika*, 18(2), 201-208.

Jalil, A., & Feridun, M. . (2011). Impact of financial development on economic growth: empirical evidence from Pakistan. *Journal of the Asia Pacific Economy, 16(1)*, 71-80.

Jamel, L., & Maktouf, S. . (2017). The nexus between economic growth, financial development, trade openness, and CO2 emissions in European countries. *Cogent Economics & Finance, 5(1)*, 1341456.

Kasidi, F., & Said, A. M. . (2013). Impact of external debt on economic growth: A case study of Tanzania. *Advances in Management and Applied economics, 3(4)*, 59.

Khan, M. S., & Senhadji, A. S. . (2003). Financial development and economic growth: A review and new evidence. *Journal of African Economies*, 12(suppl_2), ii89-ii110.

Krugman, P. . (1988). Financing vs. forgiving a debt overhang. *Journal of development Economics, 29(3)*, 253-268.

Lasbrey, A., Enyoghasim, M., Tobechi, A., Uwajumogu, N., Chukwu, B., & Kennedy, O. (2018). Foreign direct investment and economic growth: Literature from 1980 to 2018. *International Journal of Economics and Financial Issues*, 8(5), 309-318.

Levin, A., Lin, C. F., & Chu, C. S. J. . (2002). Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of econometrics, 108(1)*, 1-24.

Liang, Q., & Jian-Zhou, T. . (2006). Financial development and economic growth: Evidence from China. *China economic review, 17(4)*, 395-411.

Lucas Jr, R. E. (1988). On the mechanics of economic development. *Journal of monetary economics, 22(1)*, 3-42.

Malik, S., Hayat, M. K., & Hayat, M. U. . (2010). External debt and economic growth: Empirical evidence from Pakistan. *International Research Journal of Finance and Economics, 44(44)*, 1450-2887.

Mangkoesoebroto, G. (1998). Algifari. Teori Ekonomi Makro.

Masâ, A. G., & Rochaida, E. (2022, January). Determinan tingkat pertumbuhan ekonomi dan tingkat kemiskinan. In FORUM EKONOMI (Vol. 24, No. 1, pp. 92-102).

Masih, M., Al-Elg, A., & Madani, H. . (2009). Causality between financial development and economic growth: an application of vector error correction and variance decomposition methods to Saudi Arabia. *Applied Economics, 41(13)*, 1691-1699.

Masoud, N., & Hardaker, G. (2012). The impact of financial development on economic growth: Empirical analysis of emerging market countries. *Studies in Economics and Finance*, Vol. 29 No. 3, pp. 148-173.

Muhammad Abdulaziz, M., & Kabir, A. (2020). Impact of external debt servicing on economic growth in Nigeria: An ARDL approach. *Muhammad, M. A., & Abdullahi, K. (2020). Impact of external debt servicing on econInternational Journal of Business and Technopreneurship*, , 10(2), 257-267.

Mumba, C. S., & Li, J. H. (2020). The impact of external debt on economic growth: Evidence from Southern Africa. *Journal of Finance and Economics*, 8(3), 135-141.

Musa, K., Sohag, K., Said, J., Ghapar, F., & Ali, N. (2023). Public Debt, Governance, and Growth in Developing Countries: An Application of Quantile via Moments. *Mathematics*, 11(3), 650.

Nainggolan, M., Tanjung, D. S., & Simarmata, E. J. (2021). Pengaruh Model Pembelajaran SAVI terhadap Hasil Belajar Matematika Siswa di Sekolah Dasar. *Jurnal Basicedu*, 5(4), 2617-2625.

Nigo, A. R., & Gibogwe, V. . (2023). Empirical Research on Financial Efficiency and Economic Growth in Sub-Saharan Africa. *MPRA Paper*, 116041.

Ogunmuyiwa, M. S. . (2011). Does external debt promote economic growth in Nigeria. *Current research journal of economic theory, 3(1)*, 29-35.

Onafowora, O., & Owoye, O. (2019). Public debt, foreign direct investment and economic growth dynamics: Empirical evidence from the Caribbean. *International Journal of Emerging Markets*, 14(5), 769-791.

Patrick, H. T. . (1966). Financial development and economic growth in underdeveloped countries. *Economic development and Cultural change*, 14(2), 174-189.

Pattillo, C. A., Poirson, H., & Ricci, L. A. (2002). External debt and growth. *Available at SSRN 879569.*

Pesaran, H.M. & Shin, Y. (1999). *Autoregressive distributed lag modelling approach to cointegration.* Cambridge, MA.: Cambridge University Press.

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

Pradhan, R. P., Arvin, M. B., Hall, J. H., & Nair, M. . (2016). Innovation, financial development and economic growth in Eurozone countries. *Applied Economics Letters, 23(16)*, 1141-1144.

Rachmadi, A. (2013). Analisis Pengaruh Utang Luar Negeri Terhadap Pertumbuhan Ekonomi Indonesia (Studi Kasus Tahun 2001-2011) (Doctoral dissertation, Universitas Brawijaya).

Raghutla, C. (2020). The effect of trade openness on economic growth: Some empirical evidence from emerging market economies. *Journal of Public Affairs*, 20(3), e2081.

Ramzan, M., & Ahmad, E. . (2014). External debt growth nexus: Role of macroeconomic polices. *Economic Modelling*, 38, 204-210.

Saci, K., & Holden, K. . (2008). Evidence on growth and financial development using principal components. *Applied Financial Economics, 18(19)*, 1549-1560.

Safitriani, S. (2014). Perdagangan internasional dan foreign direct investment di Indonesia. *Buletin Ilmiah Litbang Perdagangan*, 8(1), 93-116.

Sharaf, M. F. (2022). The asymmetric and threshold impact of external debt on economic growth: newevidence from Egypt. Journal of Business and Socio-economic Development, 2(1), 1-18.
Siddique, H. M. A., Ullah, K., & Haq, I. U. (2017). External debt and economic growth Nexus in Pakistan. *International Journal of Economics and Empirical Research*, 5(2), 73-77.

Silva, J. . (2020). Impact of public and private sector external debt on economic growth: the case of Portugal. *Eurasian Economic Review, 10(4)*, 607-634.

Udeh, S. N., Ugwu, J. I., & Onwuka, I. O. . (2016). External debt and economic growth: The Nigeria experience. *European Journal of Accounting Auditing and Finance Research, 4(2)*, 33-48.

Yang, F. . (2019). The impact of financial development on economic growth in middle-income countries. *Journal of International Financial Markets, Institutions and Money, 59,*, 74-89.

Zaghdoudi, T. . (2019). Threshold effect in the relationship between external debt and economic growth: A dynamic panel threshold specification. *Journal of Quantitative Economics*, 1-10.

Zhang, J., Wang, L., & Wang, S. . (2012). Financial development and economic growth: Recent evidence from China. *Journal of Comparative Economics, 40(3)*, 393-412.