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Foreign Direct Investment Inflows and Financial Modernization: A Study of BRICS
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Abstract

This study explores the relationship between the Inward Foreign Direct Investment (FDI) and the financial modernization of the recipient economy. This study uses 30 years of data ranging from 1994 to 2023. Panel ARDL is used to calculate long-term and short-term results. The results show the positive and significant effect of FDI inflows on financial modernization. The results are found to be consistent in long term as well as in the short term although the effect in long term is slightly less significant compared to the short-term coefficient. Further, the country-specific analysis also suggests that significant coefficients are consistent across all cross-sections. For robustness of the results, this study incorporated FMOLS and the results are positive and significant for inward FDI. This study has significant implications for policymakers regarding the inflow of foreign direct investment. The policies must be supporting the FDI inflows for the hosting country.

Keywords: *Financial Modernization, Foreign Direct Investment, Financial Development, Economic Development, Trade Liberalization.*

Introduction

A good financial system is the backbone of the contemporary economy and the main source for endorsing growth in various sectors of a country. A strong financial mechanism helps savings to utilize for good investment opportunities and helps in allocating resources in a disciplined manner (Aibai, Huang, and Peng, 2019). Le and Tran-Nam (2018) highlighted the necessity of developing a sound financial system, as a developed financial mechanism is required to foster the key economic activities such as proper allocation of financial resources and implementation of monetary policy in the region.

Le and Tran-Nam (2018) in their research, proxy the financial modernization for financial development and have found significant linkages between financial modernization and economic development. Researchers have found various determinants of financial development, but this study only attempts to analyze the impact of FDI inflows in determining financial modernization. As reported by Aibai, Huang, and Peng (2019) that FDI significantly influences financial development. It can help in developing financial markets along with the financial system in a

country. Furthermore, FDI is believed to be a major source of capital inflow and also the main factor in promoting and developing the industries through technology.

An effective and developed financial system helps in improving the supply of funds, reducing the transaction charges of financial activities, and improving efficacy in the formation of capital. In the last two decades, the economy of the world has entered the third segment of financial globalization. The focus of developed economies is now to be more inclined toward the global financial schemes and additional capital inflows. This helps the financial system in increasing access to capital hence improving the financial infrastructure (Bhattacharya, Inekwe, and Paramati, 2018). Majeed et al. (2021) stated that the financial system supports transforming reserves into different investments and further optimizing resource allocation.

FDI has attracted academic researchers and policymakers due to the increasing volume of trade in the world. Inward FDI has been considered an important basis of competitiveness through technology and know-how transfer (Bayar et al., 2020). As per Organization for Economic Cooperation and Development (OECD), the volume of global FDI rebounded to 870 billion dollars in the first half of 2021. FDI inflows in the OECD area surged to 421 billion dollars which were 30% higher than in 2019. This increase in inward FDI has attracted academic researchers to revisit and analyze the effects of inward FDI on financial modernization. The figure below reports the global flow of FDI in the global market.

This paper attempts to analyze the influence of FDI inflows on financial modernization. According to Furlong and Kwan (2000), financial systems have been marked by a push globally towards financial modernization. They also described the forces behind financial modernization, which includes the continued advancement in technological aspects, information processing, and innovation in product and market. These forces are making financial modernization larger and more complex. This complexity is due to the increasing array of financial services offered by financial institutions and the proliferation of financial instruments and securities they use, which causes complexity in assessing the financial position and risk (Furlong and Kwan, 2000). Financial modernization allows companies to integrate technological innovation and collaborative investments.

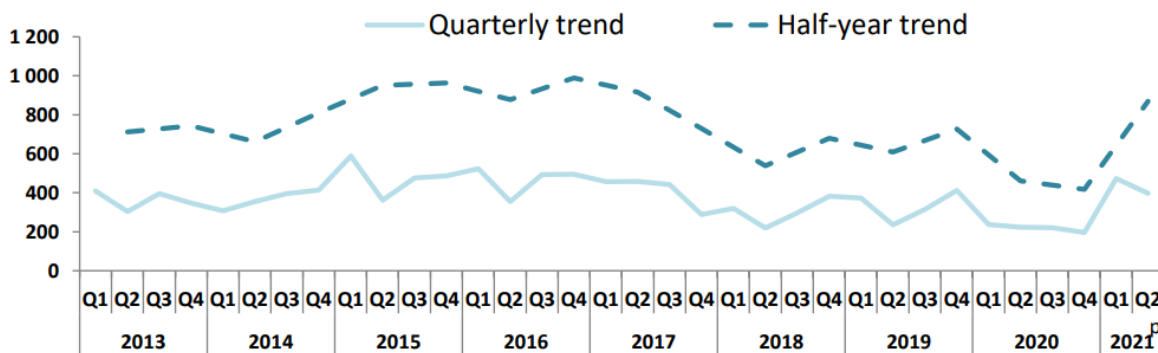


Fig. 1: Global DFI flows, Q1 2013- Q2 2021 (USD Billion)
 “Source: OECD International Direct Investment Statistics Database”

Literature Review

Financial modernization is a broadly discussed topic post recent financial crises (crises of 2007 and Covid-19) in Asia, Russia, and Latin America. Moreover, the trend of globalization also acknowledges the growth of the financial market including FDI. The extent of financial modernization can be gauged through economic indicators, especially FDI, GDP, GFCF, and others. In this paper, we majorly focus on FDI's role in financial modernization.

Numerous current research highlights that financial modernization is directly linked with economic prosperity (Pagano, 1993; Levine, 2005). Financial progress was the instrumental

factor for trade and growth, which linked with economic development (O'Rourke and Williamson, 1999). Several studies by Borensztein et al., 1998; Ehimare, 2011; Grancay et al., 2015; Slusarczyk, 2018; and Meyer and Meyer, 2020, depicted that FDI has the capacity for constructive influence on economic development and growth. It has not solitary increased technical progress but also creates employment but also boosts gross domestic savings and investments.

Beck, Levine, and Loayza (2000) said that financial advancement stimuli capital allocation and development in economies worldwide. The scope of financial improvement tends toward economic growth, FDI, and other economic indicators for the expansion purpose (Johansen, 1998; 2003). Thus, the study of Johansen's integration will be implicating to know if there is a relationship between economic growth, FDI and financial development exist. FDI is the major catalyst of capital inflow and an agent for disruptive change in technology and industrial advancement. Most recent studies have paid a significant look to the FDI's role in financial modernization.

Al-Nasser and Soydemir (2010) have analyzed the Granger causality test between financial development and FDI variables from 1978 to 2017 in 14 L. A (Latin American) countries and found that the well operational financial markets are important for finding the figures of FDI influx in these Latin American countries. Choong and Lam (2011) find the factor which is necessary for the constructive effect of FDI on economic advancement is financial modernization. Some studies also examine the positive relationship between economic development and FDI in the existence of development in the financial sector for some specific countries in contrast to cross-sectional studies. For instance, the study of Shahbaz (2011) explored the instance of Portugal and concluded with the help of financial progress and FDI inflows that, there is an affirmative influence on the growth of the economy. The same conclusions are found for Malaysia and Thailand (Choong & Lim, 2009; Ang, 2008).

Dutta and Roy (2008) study the impact of political influence on FDI and Financial modernization. After doing research over 20 years from 97 countries, they found an irregular relationship between FDI influxes and financial modernization. There further examination had mentioned that for some context, FDI inflows occurred due to financial development; however, beyond this edge it becomes undesirable. A huge literature also related free trade and export orientation to sustainable growth. Bordo and Rousseau (2012) examined currently developed economies from the period 1880 to 2010 and discovers that the cross-correlation between trade and financial development before World War I that disappears after World War II.

Financial modernization provides benefits to a country from FDI. Choong (2012) in his research from 1983 to 2006 of 95 developing and developed countries, related FDI to diverse levels of development in the financial sector. The study found that when FDI interconnects with financial indicators, it is termed as normally confident and consequently shows the significance of financial sector development that benefitted due to FDI. Few authors also examined the stimulus of financial system progress on FDI influx and finds financial modernization had been a base tool for a positive link between economic progress and FDI flows (Alfaro et al., 2004; Adjasi et al., 2012).

Korgaonkar (2012) also investigate the link between FDI inflows from 1980 to 2009 from 78 nations by using the data-mining tool and found that financial progress was a catalytic approach to fascinating inflows of FDI. Desbordes and Wei (2014) by using a panel regression model disclosed that there is a direct link between financial modernization and arrivals of FDI in 83 nations from 2003 to 2006. Moreover, Bayer and Ozel (2014) also tested the reasons for FDI influx in European Union countries from 1997 to 2011 and finds that advancement in the

financial sector exerts an impact on FDI flows. The other study by Sahin and Ege (2015) also investigate the fundamental link between financial advancement in Bulgaria, Greece, Macedonia, and Turkey from 1996 to 2012 using bootstrapping causality test and found two-way causality in Turkey from FDI flows to financial modernization and one-way causality in Bulgaria and Greece.

Le et al. (2016) significantly verified the connection between development in the financial sector and free trade from the Asian-Pacific region. FDI inflows boost funds supplies from international investors, but it can influence an adverse impact on financial progress in terms of alternative financial inclusion, which is also regarded as a competitor for the host financial market. However, recent studies by Desbordes and Wei (2017) have shown that financial development promotes FDI through external finance, which supports the aggregate economy. The research of Yao et al. (2018) tested the influence of host-location financial development (HFD) on FDI from 166 locations in China from 2003 to 2009. It infers the predictions of financial improvement and development in these countries.

Finally, few researchers have examined the relationship between establishments of capital market and capital inflow and found a direct influence of inflows of FDI and overseas investment on market enlargement (Raza et al., 2015; Evrim-Mandaci et al., 2013). It may be concluded that financial advancement was a key feature of FDI influxes as many studies showed that inflows of FDI have made considerable assistance to development in the financial sector. However, few researchers have shown the negative impact of FDI inflows on those countries that are financially under-developed and weak economies due to market capitalization by foreign investors. Although, one should consider that FDI has a conflicting result on financial development; however, most researchers found it lucrative as FDI inflows contribute to the development of the financial sector in the economy of a country.

Data and Methodology

The variables of this research are examined to check stationarity in the data. The data for a particular variable shows a trend that may or may not be predictable, so stationarity is the main issue for such variables. Further, not only does the selection of econometric models lead to stationarity of the data but also it reduces the anomalies that may lead the results to false conclusions. So, for checking the stationarity of the data three different unit root tests are used in the study. First, Levin, Lin, and Chu (LLC). Second, Im, Pesaran, Shin (IPS), and third, Hadri. LLC and IPS shared the same hypothesis that there is a unit root in the data or data is not stationary. Hadri unit root test has a null hypothesis that the data is stationary which the opposite of LLC and IPS is.

A balanced panel of five BRICS countries (i.e. Brazil, Russia, India, China, and South Africa) is selected. This study has used 30 years of data from 1994 to 2023. Foreign Direct Investment inflows (Balance of Payment, constant USD), GDP per capita 2010 constant USD which as a measure of economic development, Total Trade in merchandising (Balance of Payment, constant USD) as a measure for trade liberalization, Real free exchange rate (RFFER), Gross fixed capital formation (GFCF) as it shows the capital formation within a country. The last variable is financial modernization and for this, a composite indicator is built by using principal component analysis. The proxies taken to construct the index are liquid liabilities to Gross Domestic Product (GDP), credit issued to the private sector by banks and other financial mediators, and commercial bank resources to the sum of commercial bank assets and state bank assets.

This research is based on a panel data framework and uses a quantitative methodology. This study has adopted the pooled mean group (PMG) based panel ARDL approach introduced by Pesaran et al. (1999) for analysis of results. Panel ARDL provides short-run results along with

long-term results. The long-term coefficients are the same for all the cross-sections whereas the short-term results are allowed to vary across all the cross-sections.

The following equation represents the mathematical expression for long-term panel ARDL estimation. To develop the equations and make interpretation easy the variables are converted into the natural log.

$$\ln FM_{it} = \sum_{j=1}^p \alpha_{ij} \ln FM_{i,t-j} + \sum_{j=0}^q \beta_{ij} \ln GDP_{i,t-j} + \sum_{j=0}^q \gamma_{ij} \ln FDI_{i,t-j} + \sum_{j=0}^q \delta_{ij} \ln TRADE_{i,t-j} + \sum_{j=0}^q \phi_{ij} \ln GFCF_{i,t-j} + \sum_{j=0}^q \chi_{ij} \ln REER_{i,t-j} + \mu_i + \varepsilon_{it}$$

Here i is used for the country observation t is used for the time and α_{ij} , β_{ij} , γ_{ij} , δ_{ij} , ϕ_{ij} and χ_{ij} are the long-term coefficients for the variables in the given equation μ_i represents the fixed effect and ε_{it} shows indicated the disturbing component.

Further, for estimation of short-term results of panel ARDL following equation is established that represents mathematical expression of the short-term estimates.

$$\Delta \ln FM_{it} = \sum_{j=1}^p \alpha'_{ij} \Delta \ln FM_{i,t-j} + \sum_{j=0}^q \beta'_{ij} \Delta \ln GDP_{i,t-j} + \sum_{j=0}^q \gamma'_{ij} \Delta \ln FDI_{i,t-j} + \sum_{j=0}^q \delta'_{ij} \Delta \ln TRADE_{i,t-j} + \sum_{j=0}^q \phi'_{ij} \Delta \ln GFCF_{i,t-j} + \sum_{j=0}^q \chi'_{ij} \Delta \ln REER_{i,t-j} + \lambda(ECM)_{t-1} + \varepsilon_{it}$$

Where α_{ij} , β_{ij} , γ_{ij} , δ_{ij} , ϕ_{ij} and χ_{ij} are the short-term coefficients along with the Δ which represents the difference. The parameter λ represents the error correction or coefficient for speed of adjustment. If the $\lambda = 0$, then there is no relationship in the long-term. This parameter of mistake correction should be undesirable and significant to provide evidence of long-term equilibrium.

Results and Analysis:

Table 1 presents the summary statistics of concerned variables. Mean, median, maximum, and minimum values along with standard deviation are provided in the table. The second column reports the averages of the variables followed by the median in the third column. The standard deviation of the variables is also reported in column sixth. For data normality, Jarque-Bera test is used with null hypothesis that the data is not normal. The significance of Jarque-Bera results states that the data is normally distributed.

Table 01. Descriptive Statistics

Variables	Mean	Median	Max:	Min:	Std. Dev:	Obs:	Jarque-Bera	Prob.
<i>lnFM</i>	-0.361	-0.439	1.817	-1.416	1.001	120	11.041	0.000
<i>lnFDI</i>	23.443	23.842	26.396	19.741	1.651	120	5.061	0.079
<i>lnGDP</i>	8.405	8.737	9.392	6.460	0.894	120	16.039	0.000
<i>lnGFCF</i>	26.408	26.434	29.093	24.115	1.172	120	7.136	0.018
<i>lnREER</i>	4.486	4.520	4.867	3.870	0.187	120	19.645	0.000
<i>lnTRADE</i>	26.558	26.282	29.179	24.765	1.117	120	7.598	0.022

Table 2 reports the results for the correlation between variables. These results of correlations illustrate that there is not any robust correlation between the variables that can cause the issue of multicollinearity. The correlation between GFCF and FDI is 0.681 and 0.571 between GFCF and TRADE. The positive correlation between FDI and FM shows that there might exist potential effect of foreign direct investment (inflows) on financial modernization. In a nutshell, no higher correlation is observed between the variables concerned.

Table 02. Correlation Analysis

Variables	lnFM	lnFDI	lnGDP	lnGFCF	lnREER	lnTRADE
lnFM	1.000	-	-	-	-	-
lnFDI	0.471	1.000	-	-	-	-
lnGDP	0.345	0.494	1.000	-	-	-
lnGFCF	0.236	0.681	-0.145	1.000	-	-
lnREER	0.416	0.231	-0.111	0.204	1.000	-
lnTRADE	0.288	0.647	0.063	0.576	0.306	1.000

The results for unit root test are reported in the following Table 03. The table presents results for three tests where LLC and IPS share the same hypothesis that there is unit root in the data while Hadri has the opposite hypothesis that there is no unit root in the data. The overall results of unit root test show stationarity in the data at first difference. The results for LLC and IPS for all variables are strongly significant at first difference that clearly shows the stationarity in the data series. Whereas Hadri loses its significance for most of the variables at first difference. So, all the tests show the similarity in the results that the data is stationary at first difference but apart from the first difference the results are opposite, and all variables are non-stationary at level and to justify that all three tests are showing insignificant results and supporting the null hypothesis.

Table 03. Unit Root Analysis

Variables	LLC		IPS		Hadri	
	Intercept		Intercept		Intercept	
lnFM	-0.478		0.981		6.747***	
lnGDP	-0.055		2.665		7.944***	
lnFDI	-2.252**		-2.025**		6.598***	
lnTRADE	-1.302*		1.066		7.335***	
lnGFCF	-1.530*		1.356		7.660***	
lnREER	-1.417*		-1.168		4.084***	
ΔlnFM	-3.048***		-3.861***		-0.403	
ΔlnGDP	-4.121***		-3.402***		0.279	
ΔlnFDI	-9.304***		-8.847***		-0.079	
ΔlnTRADE	-7.040***		-5.275***		0.199	
ΔlnGFCF	-5.001***		-3.974***		0.142	
ΔlnREER	-7.979***		-7.174***		-0.843	

“Note: ‘*’, ‘**’, ‘***’ indicate significance at 10%, 5%, and 1% respectively”.

Table 04 Panel A, with reference to equation 1, reports long-term coefficients of panel ARDL. The results show significance across all the independent variables and report positive signs to their respective beta coefficients. Results show that FDI has a positive and statistically significant impact on financial modernization in the region concerned. The beta coefficient is significant at 1% significance level supporting the literature as the financial modernization is significantly and

positively influenced by the foreign direct investment (inflow). Other control variables also show positive results, and all are significant at various levels.

Panel B represents the short-term results for panel ARDL. The results are consistent with long term results as the foreign direct investment do have predictive power and show significantly positive impact on financial modernization. The results are significant at 5% significance level with coefficient of 0.025. GDP, GFCG and REER have lost significance in the short term.

Table 04. ARDL Results

Variables	Coefficient	Std. Error	t-Stat	Prob.
<i>Panel A: Long-run Estimates</i>				
<i>lnFDI</i>	0.116	0.058	1.989	0.050*
<i>lnGDP</i>	1.817	0.399	4.553	0.000***
<i>lnGFCF</i>	0.364	0.209	1.736	0.087*
<i>lnREER</i>	0.431	0.185	2.327	0.023**
<i>lnTRADE</i>	0.978	0.176	5.543	0.000***
<i>Panel B: Short-run Estimates</i>				
<i>ECT_{t-1}</i>	-0.224	0.048	-4.634	0.000***
Δ <i>lnFDI</i>	0.025	0.012	2.098	0.039**
Δ <i>lnGDP</i>	0.701	1.956	0.359	0.721
Δ <i>lnGFCF</i>	0.208	0.276	0.756	0.452
Δ <i>lnREER</i>	-0.192	0.247	-0.774	0.441
Δ <i>lnTRADE</i>	-0.315	0.114	-2.761	0.007***
<i>C</i>	-4.071	0.832	-4.891	0.000***

*"Note: *, **, *** indicate significance at 10%, 5%, and 1% respectively".*

The Error Correction Term (ECT t-1) is significantly ECT t-1 is significant at 1% level having coefficient of -0.224. The ECT indicates the speed of adjustment in the equilibrium. The ECT term must be significant and negative. The negative signs of the ECT show the convergence rate of the FDI and control variables in the long run. In other words, it illustrates the adjustment speed to maintain the equilibrium stage and how quickly the variables converge to the equilibrium.

Table 05. Country Specific Short-term ARDL Results

	Brazil	Russia	India	China	South Africa
<i>ECT_{t-1}</i>	-0.244***	-0.208***	-0.048***	-0.316***	-0.305***
Δ <i>lnFDI</i>	0.006***	0.008***	0.022***	0.063*	0.037***
Δ <i>lnGDP</i>	0.194	0.573	-0.903***	7.087	5.250
Δ <i>lnGFCF</i>	0.195	0.852***	0.031*	0.678	-0.715**
Δ <i>lnREER</i>	-0.097***	-0.177***	0.046***	-1.163	-0.115
Δ <i>lnTRADE</i>	0.231***	0.546***	0.075***	-0.342***	-0.533***
<i>C</i>	-4.424	-3.971*	-1.036***	-6.028	-4.899

*"Note: *, **, *** indicate significance at 10%, 5%, and 1% respectively".*

Country-Specific results for panel ARDL are reported in Table 5. LFDI is positively significant in all the countries in the panel. The results for FDI are significant across the panel but the level of significance is much higher as only in China, the significance level is 10% but in all other countries the significance level is 1%. Control variables are showing mixed results REER is mostly negative across the panel and trade is showing significant and negative results in China and South Africa. The error correction term is showing negative and significant (at 1% level) result.

Table 06. FMOLS Analysis

Variables	Coefficient	Std. Error	t-Stat	Prob.
<i>lnFDI</i>	0.247	0.083	2.964	0.004***
<i>lnGDP</i>	0.379	0.013	29.343	0.000***
<i>lnGFCF</i>	0.621	0.031	20.055	0.000***
<i>lnREER</i>	0.051	0.057	0.889	0.376
<i>lnTRADE</i>	0.148	0.059	2.488	0.014**

“Note: ‘*’, ‘**’, ‘***’ indicate significance at 10%, 5%, and 1% respectively”.

For robustness analysis this study has used Fully Modified Ordinary Least Square (FMOLS). The results of FMOLS show similar patterns as under the panel ARDL. The results show positive and significant impact except REER. The main independent (FDI) is positively affecting the financial modernization with coefficient of 0.247 and significant at 1% with t-value of 2.964.

Conclusion:

This study attempts to analyze the Impact of foreign direct investment inflows on financial modernization in BRICS. The results are found to be consistent with the literature. Literature has reported number of different variables that explain the development from a financial perspective. Le and Tran-Nam (2018) constructed an index named it as “Financial Modernization” and this study also used the same method to construct the index and used it as dependent variable in this study. The data for 30 years has been collected and the panel ARDL is used to analyze both the estimates, i.e. long-term and short-term results for this research. All the variables are stationary at first difference at intercept across all the variables. The results are consistent for all three unit-root tests i.e. LLC, IPS and Hadri.

The results of ARDL are significant and positive in long run results for all variables in the model. FDI inflows along with other control variables are having positive impact on financial modernization. If the financial institution is well integrated to support economic activity, then ultimately it will help saving to transform into investment. The results also support this narrative that investment flowing into the country will also help in financial modernization. The results are also consistent in short run showing positive impact on Financial Modernization. The error correction term is significant and negative which confirms the existence of long run relationship. The results in countries specific to FDI inflows are consistent across all countries and the error correction term is also significant and negative.

References

- Abdul Malik, Ihtisham, and Shehla Amjad. 2013. Foreign direct investment and stock market development in Pakistan. *Journal of International Trade Law and Policy* 12: 226–42.
- Adjasi, C. K., Abor, J., Osei, K. A., & Nyavor-Foli, E. E. (2012). FDI and economic activity in Africa: The role of local financial markets. *Thunderbird International Business Review*, 54(4), 429-439.
- Aibai, A., Huang, X., Luo, Y., & Peng, Y. (2019). Foreign direct investment, institutional quality, and financial development along the belt and road: An empirical investigation. *Emerging Markets Finance and Trade*, 55(14), 3275-3294.
- Al Nasser, O. M. and G. Soydemir, 2010, “Domestic and International Determinants of Foreign Direct Investment in Latin America”, FMA Annual Meeting, New York, USA.
- Alfaro, L., A. Chanda, S. Kalemli-Ozcan, and S. Sayek. 2004. “FDI and Economic Growth: The Role of Local Financial Markets.” *Journal of International Economics* 64 (1): 89– 112.
- Al-Qudah, L., Piontek, B., & Oláh, J. (2021). Economic Growth and Foreign Direct Investment in the Context of Financial Development: Evidence from Jordan. *European Research Studies*, 24(2B), 762-782.

- Ang, J. B. (2008). Determinants of foreign direct investment in Malaysia. *Journal of Policy Modeling*, 30, 185–189
- Bayar, Y., & Gavrilitea, M. D. (2018). Foreign direct investment inflows and financial development in Central and Eastern European Union countries: A panel cointegration and causality. *International Journal of Financial Studies*, 6(2), 55.
- Bayar, Y., & Ozel, H. A. (2014). Determinants of foreign direct investment inflows in the transition economies of European Union. *International Journal of Research in Commerce, Economics and Management*, 4(10), 49–53.
- Beck, T., R. Levine, and N. Loayza. 2000. "Finance and the Sources of Growth." *Journal of Financial Economics* 58 (1): 261–300.
- Bhattacharya, M., Inekwe, J., & Paramati, S. R. (2018). Remittances and financial development: empirical evidence from heterogeneous panel of countries. *Applied Economics*, 50(38), 4099–4112.
- Bordo, M.D., and P.L. Rousseau. 2012. Historical evidence on the finance-trade-growth nexus. *Journal of Banking & Finance* 36: 1236–1243.
- Borensztein, E., De Gregorio, J., & Lee, J.-W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115–135.
- Carkovic, M., & Levine, R. (2005). Does foreign direct investment accelerate economic growth. *Does foreign direct investment promote development*, 195, 220.
- Choong, C. K., & Lam, S. Y. (2011). Foreign direct investment, financial development and economic growth: Panel data analysis. *The IUP Journal of Applied Economics*, 10(2), 57–73.
- Choong, C. K., & Lim, K. P. (2009). Foreign direct investment, financial development, and economic growth: The case of Malaysia. *Macroeconomics and Finance in Emerging Market Economies*, 2, 13–30.
- Choong, C.-K. (2012). Does domestic financial development enhance the linkages between foreign direct investment and economic growth? *Empirical Economics*, 42(3), 819–834.
- D’Onofrio, A., & Rousseau, P. L. (2018). Financial development, trade openness and growth in the first wave of globalization. *Comparative Economic Studies*, 60(1), 105–114.
- Desbordes, R., & Wei, S.-J. (2014). The effects of financial development on foreign direct investment. Policy Research Working Paper No. 7065. World Bank Group, Washington, DC. Retrieved from <https://openknowledge.worldbank.org/handle/10986/20515>
- Desbordes, R., & Wei, S.-J. (2017). The effects of financial development on foreign direct investment. *Journal of Development Economics*, 127, 153–168.
- Dutta, N., & Roy, S. (2008). Foreign direct investment, financial development and political risks. MPRA Working Paper No. 10186. Retrieved from <https://mpra.ub.uni-muenchen.de/10186/>.
- Ehimare, O.A. 2011. Foreign Direct Investment and its effect on the Nigerian economy. *Business Intelligence Journal*, 4(2), 253–261.
- Evrin-Mandaci, Pinar, Bora Aktan, Guluzar Kurt Gumus, and Manuela Tvaronavičiene. 2013. Determinants of stock market development: evidence from advanced and emerging markets in a long span. *Business: Theory and Practice* 14: 51–56.
- Furlong, F., & Kwan, S. (2000). Financial modernization and regulation. In *Financial Modernization and Regulation* (pp. 5–10). Springer, Boston, MA.
- Grančay, M., Grančay, N., Drutarovská, J., Mura, L. 2015. Gravity Model of Trade of the Czech and Slovak Republics 1995–2012: How Have Determinants of Trade Changed? *Politická Ekonomie*, 63(6), 759–777.
- Johansen, S. 1988. Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control*, 12(2-3), 231–254.

- Johansen, S. 2003. Likelihood-Based Inference in Cointegrated Vector Autoregressive Models. Oxford University Press, New York.
- Korgaonkar, C. (2012). Analysis of the impact of financial development on foreign direct investment: A data mining approach. *Journal of Economics and Sustainable Development*, 3(6), 70–79.
- Le, T. H., & Tran-Nam, B. (2018). Trade liberalization, financial modernization and economic development: An empirical study of selected Asia–Pacific countries. *Research in Economics*, 72(2), 343-355.
- Le, T.-H., Kim, J., & Lee, M. (2016). Institutional quality, trade openness, and financial sector development in Asia: An empirical investigation. *Emerging Markets Finance and Trade*, 52(5), 1047-1059.
- Majeed, A., Jiang, P., Ahmad, M., Khan, M. A., & Olah, J. (2021). The Impact of Foreign Direct Investment on Financial Development: New Evidence from Panel Cointegration and Causality Analysis. *J. Compet*, 13, 95-112.
- Meyer, N., Meyer, D.F. 2020. Entrepreneurship as a Predictive Factor for Employment and Investment: The Case of Selected European Countries. *Euroeconomica*, 39(2), 165-180.
- O'Rourke, K.H., and J.G. Williamson. 1999. Globalization and history: The evolution of a 19th century Atlantic economy. Cambridge, MA: MIT Press.
- Pagano, M. (1993). Financial markets and development: An overview. *European Economic Review*, 37, 613–622.
- 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.
- Raza, Syed Ali, Syed Tehseen Jawaid, Sahar Afshan, and Mohd Zaini Abd Karim. 2015. Is stock market sensitive to foreign capital inflows and economic growth? Evidence from Pakistan. *Journal of Chinese Economic and Foreign Trade Studies* 8: 142–64.
- Sahin, S., & Ege, I. (2015). Financial development and FDI in Greece and neighboring countries: A panel data analysis. *Procedia Economics and Finance*, 24, 583–588.
- Shahbaz, M., Leit˜ao, N. C., & Malik, S. (2011). Foreign direct investment-economic growth nexus: The role of domestic financial development in Portugal. *Economics Bulletin*, 31(4), 2824–2838.
- SHAHBAZ ET AL. 23 Retrieved from <https://ssrn.com/abstract=3120148> or <https://doi.org/10.2139/ssrn.3120148>
- Shahbaz, M., Mateev, M., Abosedra, S., Nasir, M. A., & Jiao, Z. (2021). Determinants of FDI in France: role of transport infrastructure, education, financial development and energy consumption. *International Journal of Finance & Economics*, 26(1), 1351-1374.
- Ślusarczyk, B. 2018. Tax incentives as a main factor to attract foreign direct investments in Poland. *Administratie si Management Public*, (30), 67-81.
- Soumaré, I., & Tchana Tchana, F. (2015). Causality between FDI and financial market development: Evidence from emerging markets. *The World Bank Economic Review*, 29(suppl_1), S205-S216.
- Yao, Y., Chen, G., Smyth, R., & Zhang, L. (2018). Host-location financial development and foreign direct investment: City-level evidence from China. Working Paper (January 12, 2018).