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The Asymmetric relationship Between Capital Inflow and Domestic Investment for Selected Developed and Developing Countries: Fresh Evidence from Panel Nardl Investigation

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Capital Inflows, Domestic Investment, Asymmetric, Exchange Rate, Government Expenditures, Inflation

ABSTRACT

Capital inflows play a key role to enhance domestic investment, which in turn, improves the economic growth and development of a country. However, no extensive evidence is available in the present literature concerning the array of capital inflows, exchange rate, inflation, and government expenditures' effect on domestic investment. Through this research, we focused to fill the gap by figuring out the response to the question of whether the associations among capital inflows, exchange rate, inflation, and government expenditures effect on domestic investment exist symmetric or asymmetric. For the analysis Panel, Non-linear Autoregressive Distributed Lagged from 1995 to 2018 has been used. Non-linear estimate gives the long-run asymmetric relations among capital inflows, exchange rate, inflation, government expenditures, and domestic investment in the case of all developing and developed countries panel. Moreover, in the short-run, the asymmetric relations also confirm for selected nations. Panel ARDL verifies the impact in long run consecutively from government expenditures, flows of capital, and exchange rate to domestic investment in two samples of developed and developing countries. This study suggests that to encourage economic growth and development; a conducive investment environment should be provided, domestic financial market quality should be improved, inflation should be maintained, public expenditures should be balanced and domestic investment should also be enhanced.

INTRODUCTION

In any economy, domestic investment serves as the engine for the growth of the economy, a key source of employment generation, and a great contributor to the growth of the economy. In recent times, many economies rely on capital inflows due to the augmenting role of capital inflow in the promotion of economic growth, and enhancement of domestic investment has developed a central concern for researchers and policymakers.

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The inflow of capital is mostly desired by all economies and specifically by underdeveloped economies as it plays a greater role in overcoming the insufficiency of the domestic resources (Nwokoma, 2013), whereas in the developed and industrialized economies it is required for further development (Obadan, 2004). The work of Ghosh, Qureshi, and Sugawara (2014) highlights that capital inflow from foreign serves as the main driver for achieving the growth of the economy as it leads to enhance investment and development of capital market which ultimately promotes high domestic income and consumption (Boudias, 2015). Furthermore, capital inflows, and foreign direct investment in specific, could be advantageous individually for financiers and domestic economies. Economists are likely to the favor free flow of capital within countries because it permits capital to search out for the maximum rate of return (Hecht et al, 2004). Unobstructed capital flows can too offer numerous further rewards, as illustrated by Feldstein (2000). Firstly, global capital flows decrease the threat encountered by holders of capital, owing to divergence in borrowing and investment. Secondly, the international flexibility of capital might bind the aptitude of governments to follow depraved policies. In addition, Inflows of capital or movement of capita among the different nations are performing for purpose of investment, business or trade production. It has great importance for each economy, irrespective of its level of growth and development. For advanced nations, the inflow of capital is essential for achieving sustainable growth and development whereas for emerging nations; it is used for extending the growth and level of investments to generate circumstances for faster economic development. In the case of transition states, it is valuable to transmit out the improvements essential across the trading economy (Edwards, 2004).

Moreover, economies come to be further open globally and welcoming to capital inflows. Different forms of capital inflows like FDI, External aid, worker remittances, Foreign Debt, are coming from the donor state to the receiver nation. It determines considerably donate alteration of several world nations (Eastrly et.al, 2004). Hence, the motivation for this research is to reveal whether there are sound effects of capital inflow on domestic investment by an asymmetric approach. To analyze the relation, this study implements an econometric strategy known as panel nonlinear ARDL through integrating nonlinear framework suggested by Shin et al. (2014) and transform into panel method through decomposing explanatory variables into two different groups of data set i.e. negative and positive shocks. This work gives new evidence from worldwide panel data of developing and developed economies on assessing the impact of various aspects of capital inflow (FDI flow, Remittances, Portfolio investment and debt flows, and import of capital goods) on domestic investment, along with correlated problem outcome of the exchange rate, government expenditures and inflation on domestic investment.

As capital inflows, FDI in specific might be mutually favorable to investors and the home country. Open economy through the globe is constructive because it permits capital inflow to search out the maximum degree of return. Unhampered flows of capital can also suggest some additional benefits, as explained by

Feldstein (2000). Firstly, global capital flows decrease the danger confronted by holders of capital, by permitting them to expand their borrowing and investment. Secondly, the international assimilation of capital flow market may contribute to the spending of the top performance of business authority, accounting documentations, and authorized civilizations. Thirdly, the international mobility of capital can limit the capacity of governments to carry out bad policies.

So the main objective of this research paper is to reexamine the relationship between domestic investment and external financial assets through concentrating current literature and suggesting empirical investigation over a large sample of developed and developing nations. Firstly, to analyze and compare the factors related to capital inflow influencing domestic investment in selected developed and developing countries. Secondly, to estimate the effect of various factors on domestic investments along with 4 aspects of capital inflow i.e. Remittances, FDI, external debt, and portfolio investment. And thirdly, to analyze the impact of capital inflow of imported capital on the domestic investment

There is ample literature that analyses the capital flows in advanced economies (Krugman, 1998; Edison & Warnock, 2006) and the emerging market (Bosworth & Collins, 1999; Calvo et al. 1993, 1996; Dooley, Fernandez-Arias & Kletzer, 1994; Mileva, 2008; Mody & Murshid, 2005; Serven, 2003; Sompornserm, 2010). However, the extensive scholarly literature on the impacts of capital inflows for least developed countries exists a bit, but the comparison between developed and less developed countries has been neglected and literature has also been silent on this point, and this study aims to fill this gap. Although many previous studies have assessed the impact of FDI inflows on the economy of the host country, only a few have examined the interrelationship between capital inflows and domestic investment (Bosworth & Collins, 1999; Mileva, 2008; Mody & Murshid, 2005). The key contributions of this study are as follows: first, it analyses the main difference of absorptive capacity of capital inflows in these countries, whether advanced are more benefited or more necessary for developing countries. Another main contribution is that only one study is available on the asymmetric relationship on financial variables (i.e capital inflows etc) (Md. Qamruzzaman and Wei Jianguo (2020)) the value of this paper is to full fill the gap on this side. The research paper develops into four sections. Section 1 presents the introduction of the topic, a detailed summary of various research is given in section 2and Section 3 describes the data and methodology section 4 comprises an empirical estimation of this research.

LITERATURE REVIEW

The capital inflow to the developing and developed nations has developed an essential instrument for investment as well as for economic growth and development. Inflows of capital in the shape of portfolio investment, FDI, and some other fiscal tools speed up the economic development and consumption in home states (Bosworth & Collins, 1999). Additional benefits comprise knowledge transmission,

invention and innovation, administration expertise, capability structure, taking of risk, internationalization of home business, manufactured goods branding quality and design structure, competency, and the quality, occupation, capitalization amongst others (Agosin & Mayer, 2000; Javorcik, 2004). While, flows of capital are responsible for generating employment to recipient nations and given that entrance to other republics' home expertise (Moosa, 2002). The UNCTAD (2013) report analyzed that inflows of capital may access to the appreciation of real exchange rate and this could have bad impacts on the competitiveness and development of the industrial sector. Problems of state safety and too much foreign switch have also been referring to harmful impacts of capital inflows (Kurtishi-Kastrati, 2013; Moosa, 2002). Whether the injection of foreign capital will have good or bad impacts are determined by the type of actions that external financiers are involved in them. Foreign investments could source the crowding out of national companies (particularly the inefficient ones) if the investments are in the production of substitute goods or services. However, they could base for crowding in local businesses if investments exist in the manufacture of complementary products and services (Gocer et al., 2014).

Due to the search for a maximum rate of return, various economists support the free movement of capital. The capital movements without limitations result may also give many other benefits (Feldstein, 2000). First and foremost, the global flow of capital decreases the threats which the holders of capital look in letting them to spreading their credits and investments. Secondly, global integration of financial markets can contribute to the spreading of better practices such as good management of enterprises and good rules of accountancy. Third, the international movement of capital inflow can bind the capability of governments to move out wicked policies. A theoretically significant advantage of inflows of capital to developing economies is the reduction of credit controls, expansion of investment means, and, consequently, the acceleration of development (Harrison et al., 2004). For the host economies, foreign capital takes credit, discipline, and knowledge. Those are said to be important for economic development (Tong and Wei, 2011). Furthermore, access to international resources may increase capital formation effectiveness and production, and so development in host economies (Ahmed and Zlate, 2014). So far, many researchers dispute in contradiction of such and many extra affirmative advantages of capital inflows. Such as, inflows of capital may reason an allocation of economic assets commencing tradable to non-tradable regions, which frequently question low output development (Benigno and Fornaro, 2014; Reis, 2013). Moreover, experiences of huge inflows of capital rise the possibility of an unexpected break—which offended economic activities (Calvo and Reinhart, 2000; Gourinchas and Obstfeld, 2012)—and can cause a change of investment and employment out of the industrial sector to non-industrial sectors (Beningo et al., 2015).

The problem of whether inflows of capital encourage local investment takes the main distress especially in emerging nations given their huge reliance on all types of capital inflows Adams**,** Sakyi, and Opoku

(2016). For more confirmation, this study was conducted for the 25 sub-Saharan African states by using pooled mean group (PMG) valuation method to analyzed inflows of capital and domestic investment. Foreign direct investment and foreign debt are used as proxies for inflows of capital. The results discovered the FDI (foreign direct investment) affects significantly positively on domestic investment; however foreign debt takes an adverse effect on domestic investment in a long period. Similarly, Sunny and Unnikrishnan (2018) analyzed the effect of inflows of capital over domestic investment in BRICS[*] countries and identified the inflows of capital in BRICS ensure a positive effect on domestic investment and economic growth. Bosworth and Collins (2013) studied flows of capital to emerging nations, effects for investment and saving, and suggested that around half of every dollar of inflow of capital decodes into a rise in domestic investment. Zhang & Ward (2015) explored evidence assessing the effects of inflows of capital over the domestic economic situation through sub-Saharan Africa states. It's analyzed that FDI through sub-Saharan Africa found to stay the largest ratio contributes to, accounting for 35% of entire capital inflows. The study also found that in both the short term and long term FDI inflows have significant positive effects on domestic investment through sub-Saharan Africa. Further key macroeconomic variables e.g. domestic economic growth, real effective exchange rate, age dependency ratio, terms of trade, and trade openness also show significant parts in defining domestic investment.

Capital inflows in terms of portfolio investment, foreign direct investment, and loans may also decrease the interest rate or raise the credit availability and thus giving impetus to investment activities (Mileva, 2008). For instance, Harrison et al. (2004) find that foreign direct investment, in specific, facilities the investment restrictions of the companies in emerging economies and that this outcome is more helpful for low-income countries than high income. Moreover, these different forms of capital flows may have a varying degree of effect on domestic investment. For instance, Bosworth and Collins (1999) investigate that collective external capital inflows increase domestic investment; nevertheless, the proof over the distant kinds of movements is extra nuanced[†]. However, Feldstein (1995) analyzed that there is an inverse association between the FDI and Domestic Capital Stock. Ranjan and Kumar (2012) found an empirical investigation to influence inflows of capital over domestic investment in India and showed that there is a statistically significant association among the capital inflows on domestic investment in India but its relationship is negative. For emerging economies, remittances are another source of foreign investment, afterward FDIs and formerly formal aid assistance (McKenzie and Sasin, 2007). Contributions of Mundaca (2009) and Giuliano and Ruiz-Arranz (2009) over the performance of remittances stress the role of development of the economic region. Mutually discover that remittances have a significant positive impact on domestic investment. Conversely, Mundaca (2009) discover that financial

[*]Such as China, India, Russia, Brazil and South Africa

[†] They show that the impact of a one-dollar increase in FDI is an 81 -cent contemporaneous rise in domestic investment and a 50-cent rise in foreign loans, while no statistically significant relationship between portfolio flows and capital formation is found.

intermediation raises the receptiveness of growing remittances, and so a better advanced financial sector advantages to directing remittances more competently to creative usages.

Giuliano and Ruiz-Arranz (2009) observed that the remittances effect is weaker on upper levels development of the financial sector. They argued that poor family's usage remittances to investing in informal sectors which is poorly industrialized commercial markets by liquidity restraints. So, for this, remittances contribute low in development of financial markets. They further proposed that remittances recover a nation's affluence and improve its contact with the global capital sector. However, Le Thanh Tung (2018) worked on the effect of remittances on domestic investment in emerging states of the Asia-pacific region and concluded that remittances hurt domestic investment. Thirdly, foreign capital in terms of external debt has great importance, particularly for developing countries. The domestic investment shows a precarious role to make a path towards growth and development of any country shown by the different studies such as Shah, Hasnat, and Li (2010) worked at whether inflows of capital motivate Domestic Investment in Pakistan, they utilized the data from 1990 to 2010 and concluded that credit in motivating domestic investment is insignificant.

Similarly, Javed and Sahinoz (2005) documented that a vast amount of foreign debt might negatively affect domestic investment instead of increasing domestic investment. The idea that the business of capital goods stays the main cause of economic fluctuations is an old one. As Imports of capital things have come to be a rising cause of domestic investment and growth for any country's economy. Cavallo and Landry (2009) explored the relationship between imports of capital goods, investment Precise Production, and growth in the U.S. economy. Results elaborate that model apportionment choices upcoming after fluctuations in comparative prices describe better changes in imports of capital goods in total investment in tools and software, and in U.S. production. In contrast, Ullah et al. (2009) analyzed capital development sources of real imports. Moreover, they showed no causation among capital development, trade such as export of capital, and import of capital. However, Jong-Wha Lee (1995) presented a model of endogenous growth in free trade state in which the income growth rate is greater if goods of imported capital are used comparatively more than goods of domestic capital (i.e. composition of investment) for manufacturing new stock of capital (change in investment)

While, Glas, Hübler & Nunnenkamp (2016) worked on the performance of capital goods imports, FDI inflows, domestic investment, and absorptive capability and showed that the effect of imported capital goods and FDI inflows on economic equilibrium be determined by the local ability to develop state to engage larger know-hows.

Advanced countries favor the flexibility of exchange rate preparations on fixed. The normally experienced flexible exchange rate procedure is achieved drift or muted drift, whereas monetarists permit the price of home currency in contrast to external currency determined through market powers, and rarely interfere in times while the currency departs as of its symmetry. The exchange rate procedure makes instabilities or reservations in the real exchange rate. The correlation between exchange rate uncertainty and domestic investment has involved several considerations in macro studies. Canbaloglu and Gurgun (2018) studied the effect of exchange rate uncertainty on domestic investment through panel analysis for 25 developing economies and emerging markets. The conclusion of the study demonstrates that the effect to be there significant and positive, which can designate being risk impartial or unresponsive domestic financiers to exchange rate uncertainty in these nations. Conversely, the effect of the real exchange rate over domestic investment is creating to be insignificant but negative.

In addition, if investors are risk lovers or risk impartial, they might identify the unstable atmospheres in rapports of exchange rates as a profitable chance to involve in investments. Similarly, Oskooee and Hajilee (2010) analyzed the effects of exchange rate fluctuation on domestic investment. Further, they explore the short-run and long-run impacts of exchange rate floating over domestic investment in every one of the 36 nations through implementing time series data. The presentation of bounds testing technique designates that exchange rate fluctuation has significant impacts on short-run over domestic investment into 27 economies. Moreover, the impacts of short-run are decoded in long run merely in 12 economies.

However, real exchange rate volatility can produce undesirable consequences. For example, Serve´n (2003) analyzed real exchange rate volatility and investment in the private sector of LDCS. By taking a big sample of time series data set of cross-state and GARCH model of real exchange rate volatility the study discover the strong negative impact of exchange rate uncertainty over investment, behind calculating for further standard investment elements and using into explaining their probable endogeneity. The impact of doubt is not identical. But, here are several suggestions of doorstep impacts; as a result that volatility simply problems as the situation go beyond certain critical region. However, the negative impact of real exchange rate volatility over investment is considerably more in markets that are very much unrestricted from those using fewer residential economic structures.

Investment is an essential component of a country's economy. Inflation has a great impact on the investment activities of a country**.** Because inflation generates prices if not correctly achieved and decreases fanaticism intended for investment Nnenna (2014). Furthermore, Nnenna (2014) explained the inflation effect over investment (infrastructural investment) for the Nigerian economy; Inflation distresses equally private and public areas of investment and also each person. The study showed the significant and

negative impact of inflation over-investment in the economy of Nigeria. As a result, this research paper suggested that management would switch toward sensible fiscal strategies to stay away from unnecessary printing of money which targeting inflation should attain through price maintenance and as well encourage investment environment in the economy of Nigeria.

Inflation distresses equally private and public sectors along with individuals. It initiates prices if not appropriately achieved and decreases the passion for investment; an investment is a crucial phase of a country's economy. The result of inflation over investments takes place directly or indirectly. Inflation raises information and trades cost which hinders economic growth and development. For instance, while inflation creates indeterminate nominal prices, investment development comes to be challenging. Individuals might be hesitant to arrive at deals while inflations may not be forecast, constructing comparative prices tentative. This hesitancy to go into an agreement on time drive constrains investment which disturbs economic development and consequence in a monetary slump (Hellerstein, 1997).

The study of Bosworth and Collins (1999) revealed that portfolio investment negatively affects domestic investment. Mileva (2008) exhibits the same results as the analysis of Bosworth and Collins by a model of developing markets. Flows of foreign equity capital decrease the charge of equity capital into emerging economies for the interaction of four major components: better sharing of risk between home and overseas businessmen, reduction of financial limitations such as additional foreign capital come to be accessible, improved liquidness of stock market, and taking on improved business governance performances through local organizations to fascinate other cultured foreign stockholders. From a theoretical perspective, as developing nations change after business autarky and develop further open to foreign investment, the physical investment would rise consequently, such as a lesser price of equity capital increases portfolio of the positive net present value of investments in any country (Bekaert, Harvey, & Lundblad, 2005; Chari & Henry, 2004; Henry, 2000; Levine & Zervos, 1998; Stulz, 2005)

Though philosophies explaining improved investment due to greater financial openness are rationally comprehensive, in practice, the situation is much difficult. As a substitute, imported portfolio investment is frequently responsible for disturbing domestic financial markets, for its short period nature aggravates uncertainty and volatility, really hampering new investment as businesses are not willing in increasing their capital stocks because firms do not believe imported capital will remain here for a long period (Singh & Weisse, 1998; Stiglitz, 2000). Indeed, topical empirical suggestion expresses that throughout the times of financial variabilities, such as in the year 2008 worldwide financial crisis, external equity investors redistributed substantial amounts of portfolio investments from developing countries to developed countries (Fratzscher, 2012). As regulating capital stocks is expensive, doubt for equity evaluations produced through imported investment impulsive difficulties could dampen new investment.

Likewise, portfolio investment is not beneficial for a country economy to their procyclicality, such as it raises when markets are growing but fast departures while markets are slow down, for the hotness of exchange rates and for encouraging foams in a physical country estate and prices of a financial asset (Aizenman & Pasricha, 2013). Furthermore, empirical research sturdily recommends that organizational quality shows a significant role as well, functioning as a substance directing all the above-mentioned advantages from flows of capital to actual variables, for example, economic growth, production, and investment (Ayhan Kose, Prasad, & Taylor, 2011; Bekaert, Harvey, & Lundblad, 2011; Slesman, Baharumshah, & Wohar, 2015).

While Colombo assure for valuable impacts of flows of equity capital on domestic investment, this worthy association is probable distressed by interfering policies and civil disorder. Lastly, Fouladi (2010) studied the effect of government expenditure on the gross domestic product, employment ratio, and domestic private investment through the approach of the CGE model by dividing public expenses into two groups, 1st group consumption expenses, and 2nd group investment expenses. Moreover, investment outlay has been deliberated into different five sub-groups as construction, oil, and gas, agricultural, mineral, and industry and service. The outcomes showed that public spending affects a country's economic situation in numerous ways, be determined by the nature of expenditures. Raising the public consumption expenses is the root cause of the decline in production, investment, and employment.

Moreever, Mallick (2013) examined the government expenditure, income, and investment in the private sector of India. This study located that, although government spending crowds out private investment, government spending of all kinds and nature significantly contributes to public revenue because of the enclosure of several productive costs in the revenue account. Entirely revenue expenses are not growth hindering, and exclusively, infrastructure investment might be used as a tool by the Central and State-owned governments directly for reasonable distribution of private investment to attain stable income through states and much economic growth and development.

In current ages, investigators are attracted to analyzing the asymmetric impact of Capital inflows on domestic economies in both emerging and advanced economies. In their research, Md. Qamruzzaman and Wei Jianguo (2020) discover a study over the relationship among flows of foreign capital, trade openness, financial development, and renewable energy consumption by using Panel NARDL estimation, is Non- linear investigation confirms the asymmetric relations among capital flows, renewable energy consumption, financial development, and trade openness, over the long run, for all the three selected subsamples countries that is, low income, middle income, and upper-middle-income countries panel. Moreover, for the period of the short run, the asymmetric association too confirms excepting in Lower-income nations.

RESEARCH METHODOLOGY

Model and Methodology

To capture the effect of capital inflows on domestic investment, the study uses the model developed by the (Shah et al.2010) which is further based on the Hecht, Razin, and Shinar (HRS) model for Pakistan through which Hecht et al. (2004) tried to measure the effects of different types of investment inflows. The model is further based on an equation where the association of domestic investment (DI) with foreign direct investment (FDI), remittances (R), external debt(ED) along with Exchange rate (EXR), Government Expenditures (GEX), and Inflation (INF) are Independent variables. All the measures of Capital inflow are taken in one equation to see the combined and separate effect of each type of capital inflow. Such as the comprehensive literature confirms that inflows of capital impact domestic investment in different ways and processes. Therefore, coefficients for each capital inflow for every country will be calculated by Fixed and Random effects Mode, to have the idea of a true representation of reality. The superiority of this model is that it captures the effect of all types of investment inflows, comprising foreign direct investment (FDI), on the home economy. This will throw light on the importance of foreign direct investment (FDI) in the presence of other kinds of investments from a different angle.

So our model for domestic investment will be taken as the following form;

$$\mathbf{DI_{i,t} = f\ (FDI,\ REM,\ EBDT,\ IMPC,\ EXR,\ GEX,\ INF,\ PROTF)}$$

Therefore, to estimate the parameters β, the equation can take the following form;

$$\mathbf{DI_{i,t} = \beta_0 + \beta_{1it}FDI + \beta_{2it}REM + \beta_{4it}EDBT + \beta_{5it}IMPC + \beta_{6it}EXR + \beta_{7it}\ GEX + \beta_{8it}INF + \beta_{9it}PROTF + \varepsilon_{it}} \quad \mathbf{\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (1)}$$

This equation tells the impact of FDI, worker's remittances, foreign aid, external debt, portfolio investment, and import of capital goods on Domestic investment along with control variables such as inflation, exchange rate, and Government expenditures in Developing and developed countries.

Where, DI is the domestic investment rate (i.e., the ratio of gross investment to GDP), is the dependent (endogenous) variable being the ratio of domestic investments to GDP in the equation. Whereas exogenous (independent) variables include: FDI which is foreign direct investment,
REM shows the remittances, EXTD represents external debt, IMPC shows the import of capital goods, EXR which is the exchange rate, GEX which represents Government Expenditure, INF which shows inflation, PROT present the portfolio investment and ε is the error term.

Foreign direct investment net inflows measured as the percentage of GDP, FDI is net inflows of investment to attain a long-lasting administration curiosity in a business functioning in a country

economy other than that of the investor. It is the summation of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as presented in the balance of payments.

Overall government expenditures (G) are calculated as the percentage of GDP. Overall government expenditures comprise all recent expenditures for acquisitions of goods and services (including salaries and wages). It too contains utmost spending on state defenses and security, nevertheless discounts government military expenses that are a portion of government capital creation.

Gross domestic investment (I) (percentage of GDP) Gross domestic investment comprises expenditures on accompaniments to immovable resources of a state economy and above net variations in the glassy of portfolios. Immobile resources comprise land development (ditches, drains, fences, and so on, etc); machinery, plant, and purchases of equipment; and railways building, roads, and similar resources, plus industrial and commercial houses, organizations, institutes, hospitals, and private inhabited apartments. Inventories are shares of things detained by businesses to see provisional or unanticipated variations in manufacture or transactions.

Portfolio investment (P), (current US$) Portfolio investment apart from accountabilities organizing foreign consultants' capitals covers businesses in debt securities and equity securities. Data and information are collected in current US dollars. This sequence was distributed in the corresponding GDP to acquire portfolio investment as per a part of GDP.

Import of capital goods is used for the technology-specific goods, machinery, and equipment from the advanced and technologically developed economies in the shape of investments and transfer of capital and goods and services. It has been measured directly by measuring the imports of capital goods in one country or by the imports of machinery and equipment. The exchange rate is the indicator for external stability. The exchange rate has been taken as a real effective exchange rate (REER). An increase in the REER is likely to increase the value of domestic currency per dollar in the global market. Furthermore, Inflation has been measured through CPI.

Remittance refers to money that is sent or transferred to another party. Remittances can be sent via a wire transfer, electronic payment system, mail, draft, or check. Remittances can be used for any type of payment including invoices or other obligations. It has been measured as current US$ in this research.

External debt entails the payment of principal and/or interest by the debtor at a single or several points in the future. External debt is measured by a most common indicator that is gross external debt, which measures the total debt a country owes to foreign creditors, i.e. it considers only the liabilities of that country.

Selections of the countries are based on capital inflows from the world investment report of 2019 published by the United Nations conference on trade and development (UNCTAD). In this report, FDI inflows of the top 40 (20 developed and 20 developing) host economies are selected as a sample for this research. This study uses panel data collected from different sources such as WDI (World Bank indicators) and OECD (Organization for Economic Co-operation and Development) for a period ranging from 1995 to 2018 on all variables for selected 40 countries (20 developed + 20 developing). In this study, the researcher will utilize nonlinear ARLD methodology to investigate the impact of capital inflow on domestic investment in developed and developing countries. Primarily, the study will apply panel unit root tests on data. Secondly is apply the cointegration technique and lastly used NLARDL for estimation of the relationship between variables.

It is one of the problems of Panel data, which means the dependency one variable is dependent on the other cross-sectional term. There are different tests to estimate the issue of cross-sectional dependency, which includes LM test introduced by Breusch and Pagan (1980) and CD_{lm} represent by Pesaran (2004). Lm test is used for estimation of cross-sectional dependency of a variable. lM test is suitable in the condition when N (cross-section term) is smaller than t (number of the term) Breusch and Pagan (1980). The Lm test is based on the following given equation below.

$$LM = T\sum_{i=1}^{N-1}\sum_{j=i+1}^{N}\hat{\rho}_{IJ} \rightarrow X^2N(N+1)2$$

Where, $\hat{\rho}$ denotes pairwise correlation of the residuals.

When the lm test is not applicable in condition N (cross-section term) is larger than t (number of the term). CD test is a suitable situation is when N (cross-section term) is larger than t (number of term Pesaran et al. (2008). CD test is based on the following equation.

$$CD_{lm} = \sqrt{\frac{2}{N(N-1)}}\sum_{I=1}^{N-1}\sum_{J=i+1}^{N}\left(\frac{(T-K)\hat{\rho}_{ij}^2 - U_{Tij}}{V_{Tij}^2}\right)\vec{d}(N,0)$$

Panel unit root method is used for the estimation of the stationarity level of variables. there are different methods are used for estimation of unit root, in which Levin test, Breitung test, Fisher ADF, and fisher PP test will be used in this study. The null hypothesis of this method is there is unit root or non-stationarity (Jamel and Derbali, 2016).

The panel cointegration method is used for time series when series are non-stationary at the second difference. There are different methods are used for panel cointegration. The study applied the Koa test for cointegration.

Different economic variables have a non-linear relationship. It means always x variable is not same change transmits in y variable. As suggest their name of nonlinear Meo (2018). The non-linear ARDL method is introduced by Shin et al., 2014. it is used decomposition method for generated the variables in form of nonlinear. Comparatively NARDL model is better than the classical cointegration model. The first advantage of NARDL is better for estimating the cointegration association between variables in a small size of simple. Romilly et al., 2001). The second advantage of NARDL is applicable when series are stationary at I(0) or I(1). The third advantage of NARDL is not only to estimate the asymmetries short period and long period impacts of variables and also estimate the hidden cointegration Meo (2018).

$$\Delta DI_{i,t} = \beta 0 + \beta 1 FDI_{i,} + \beta 2\, REM_{i,t} + \beta 3\, FAID_{i,t} + \beta 4\, EDBT_{i,t} + \beta 5 IMPC_{i,t} + \beta 6 EXR_{i,t}^{-} + \beta 7 EXR_{i,t}^{+} + + \beta 8 GEX_{i,t} + \beta 9 INF_{i,t} + \sum_{j=1}^{m-1} y_{ij}\Delta DI_{i,t-j} + \sum_{j=1}^{m-1} y_{ij}\Delta FDI_{i,t-1} + \sum_{j=1}^{m-1} y_{ij}\Delta REM_{i,t-1} + \sum_{j=1}^{m-1} y_{ij}\Delta FAID_{i,t-1} + \sum_{j=1}^{m-1} y_{ij}\Delta EDBT_{i,t-1} + \sum_{j=1}^{m-1} \left(y_{ij}\Delta EXR_{i,t-1}^{-} + y_{ij}\Delta EXR_{i,t-1}^{+}\right) + \sum_{j=1}^{m-1} \beta_{ij}\Delta GEX_{i,t-1} + \sum_{j=1}^{m-1} p_{ij}\Delta INF_{i,t-1} + \varepsilon it$$

Where the above EXR^{+} and EXR^{-} show the positive exchange rate and native exchange rate. The long period coefficient are found $EXR^{+} = \frac{\beta_6^{+}}{\beta_1^{+}}$ and $EXR^{-} = \frac{\beta_6^{-}}{\beta_1^{-}}$ respectively. The decomposition approach is used to estimates the shocks of positive and negative is given below.

$$EXR_i^{+} = \sum_{k=1}^{t} \Delta EXR_{ik}^{+} = \sum_{k=1}^{t} MAX(\Delta EXR_{ik}, 0)$$

$$EXR_i^{-} = \sum_{k=1}^{t} \Delta EXR_{ik}^{-} = \sum_{k=1}^{t} MIN(\Delta EXR_{ik}, 0)$$

4. Empirical Estimation

This section of research contains outcomes of different econometrics techniques, which include panel unit root test, panel cointegration, linear ARDL, and nonlinear ARDL method.

Table 1 Cross-sectional dependency test

Developing countries			
Variables	Test		
	Breusch-Pagan LM	Pesaran scaled LM	Pesaran CD
Dinvs	1049.11*	44.07*	3.11*
DEBT	1038.109*	43.50706*	1.523433

FDI	393,41*	10.43*	6.62*
GEXP	3891.60*	189.88	62.08*
PINVS	263.91*	3.79*	0.82
IMPORT	1002.66*	41.68*	12.78*
INF	959.77*	39.48*	23.66*
EXR	902.13*	36.53*	3.05*
REMITT	1025.07*	42.83*	6.39*

Developed countries			
Variables	Test		
	Breusch-Pagan LM	Pesaran scaled LM	Pesaran CD
Dinvs	1037*	43*	6.43*
DEBT	1653.80*	75.09*	12.001*
FDI	401.24*	10.83*	11.22*
GEXP	3712.75*	180.71*	60.37*
PINVS	300.71*	5.67*	0.47
IMPORT	2370.53*	111.85*	47.26
INF	1233.92*	53.55*	28.86*
EXR	1091.73*	46.25*	10.24*
REMITT	1230.03*	53.35*	2.37*

In the above table, a cross-sectional dependency test was applied and its results confirmed that there exists cross-sectional dependency among the variables. Concerning related P-value, the null hypothesis of cross-sectional independence for government expenditures, exchange rate, inflation, crosses broader flows of capital, and domestic investment. Given fact is that all variables under consideration have a cross-sectional dependency. Hence, one may assume that exchange rate, cross-border flows of capital, and domestic investment look to reveal some common dynamism to all nations.

Any correlation near 0 shows no linear association among variables. The symbol of coefficient depicts the direction of the relationship. If both variables have tended together to decrease or increase, the coefficient is positive. A correlation matrix is a table displaying correlation coefficients between variables. Every cell in the given table indicates the correlation between two variables.

The correlation matrix is calculated to check the presence of multicollinearity among the concerned variables and it was evident in the below table that there is no problem of multicollinearity for developed and developing countries.

Table 2 Correlation Matrix

Developing Countries									
	DINVS	DEBT	FDI	GEXP	GPINVS	IMPORT	INF	GEXP	REMITT
DINVS	1								
DEBT	-0.02	1							

FDI	0.004	0.08	1						
GEXP	-0.45	0.11	0.003	1					
PINVS	0.07	-0.03	0.03	-0.05	1				
IMPORT	-0.17	-0.08	0.28	-0.03	-0.008	1			
INF	-0.11	0.04	-0.14	0.10	-0.008	-0.10	1		
EXR	0.30	-0.06	0.13	-0.11	0.06	0.08	-0.37	1	
REMITT	0.09	0.21	0.03	0.03	0.07	-0.03	-0.02	-0.31	1

Developed Countries

	DINVS	DEBT	FDI	INF	EXR	PINVS	IMPORT	GEXP	REMITT
DINVS	1	-							
DEBT	-0.14	1							
FDI	-0.17	-0.05	1						
INF	0.19	-0.23	-0.08	1					
EXR	-0.09	-0.17	-0.01	-0.01	1				
PINVS	0.03	0.03	-0.03	0.12	-0.01	1			
IMPORT	0.15	-0.32	-0.22	0.12	-0.09	0.06	1		
GEXP	-0.06	0.31	-0.34	-0.18	0.14	-0.03	-0.09	1	
REMITT	-0.02	0.10	0.37	-0.05	0.01	-0.01	-0.04	-0.31	1

Panel unit root test is used for estimation of stationarity of variables. There are different panel unit root techniques, which include LLC, Breitling, IPS, Fisher ADF, and Fisher PP methods. Outcomes of panel unit root tests are reported in the below table.

Table 3 Panel Unit root test

Developed countries					
	LLC	Breitlung	IPS	Fisher ADF	Fisher PP
Dinvs	-0.80	-1.59**	-0.23	39.99	22.64
Δdinvs	-6.55*	-6.60*	-6.35*	112.55*	193.14*
Debt	-2.28**	0.45	0.23	41.78	13.04
Δdebt	-3.08*	-2.81*	-3.70*	81.93*	114.64*
Exr	-0.17	-2.22*	-1.28***	51.40	35.06
Δexr	-7.69*	-5.33*	-5.34*	93.03*	134.44*
Fdi	-3.01*	-1.75**	-2.98*	69.85*	129.24*
Δfdi					
Gexp	-2.53*	-0.43	0.14	44.26	12.71
Δgexp	-4.69*	-5.11*	-4.60*	87.37*	104.04*
Import	1.64	-1.71**	1.79	22.99	20.21
Δimpot	-6.56*	-5.21*	-6.82*	115.99*	209.82*
Inf	-7.50*	-6.40*	-6.23*	107.57*	110.65*
Δinf					
Pinvs	-1.65*	-4.71*	-2.63*	62.41*	104.72*
Δpinvs					
Remit	-0.84	-0.71	-2.32*	66.81*	311.10*
Δremit					

Developing countries

	LLC	Breitlung	IPS	Fisher ADF	Fisher PP
Dinvs	-3.09*	-1.53**	-2.88*	78.88*	42.77
Δdinvs					
Debt	-4.17*	-0.46	-3.27*	75.87*	41.51
Δdebt					
Exr	-2.01**	-1.76**	-1.11	48.40	30.72
Δexr	-6.75*	-5.69*	-5.85*	102.12*	171.56*
Fdi	-4.64*	-5.57*	-4.95*	95.18*	105.66*
Δfdi					
Gexp	0.84	-0.09	0.95	31.67	30.90
Δgexp	-5.89*	-4.12*	-3.83*	81.15*	154.41*
Import	-1.49*	-2.71*	-0.31	38.61	53.61***
Δimpot	-7.78	-4.88*	-9.16*	156.13*	889.82*
Inf	-4.02*	-0.02*	-5.41*	106.30*	533.28*
Δinf					
Pinvs	-7.48*	-8.98*	-6.20*	106.96*	258.91*
Δpinvs					
Remit	-2.46*	-1.52***	-1.88**	59.67**	59.58**
Δremit					

*is represents 1 percent, ** is represented 5 percent and *** is represents 10 percent level of significance

Variables of this research study order of integration were determined through applying numerous unit root tests for panel data set which named as, the I'm–Pesaran–Shin test (Im et al., 2003), the Levin–Lin–Chu test (Levin et al., 2002), the Breitung test (Breitung, 2001), the Fisher-ADF (Maddala and Wu, 1999) which have the null hypothesis all the panel comprises a unit root. Furthermore, Hadri (Hadri, 2000) Lagrange multiplier (LM) test has the null hypothesis that all panels are stationary.

The panel unit root test result shows in the Table given above. The panel unit test comprised the integration of mixed order, which suggests that variables are stationary either at the level or come to be stationary after the first difference, however, no variables in the model indicated stationary after the second difference. The integration of mixed order variables permits estimating relationships in long run through implementing panel ARDL explained by Pesaran et al. (1999) between financial government expenditures, exchange rate, and inflation, foreign capital flows, domestic investment.

Such as outcomes of panel unit root method suggests that some variables are integrated at the level and some are I (1), which includes Remittance, inflation, pinvs, FDI, debt, and dinvs are integrated at the order I(0) other variables import, gexp, and exr are integrated order I(1). When all variables are integrated order 1 next step to estimates the cointegration method is suitable for estimation.

The next, this research work examines the possible long-run relationship among government expenditures, trade exchange rate, inflation, foreign capital flows, and domestic investment through applying the panel cointegration test suggested by Kao (1999).

So Kao Panel cointegration test is applied for estimation of cointegration among all selected variables for developed and developing countries. Outcomes of panel cointegration test presenting in a 4 table. Which mentioning in the estimation of the related p values for developing countries i.e Model -1 and developed countries i.e model -2, are statistically significant on the 1% significance level.

Table 4 panel cointegration

Koa cointegration test					
Developing countries			Developed countries		
	T statistic	Prob		T statistic	Prob
ADF	-4.39*	0.00000	ADF	-2.18	0.013

*is represents 1 percent, ** is represented 5 percent and *** is represents 10 percent level of significance

Outcomes cointegration test confirmed that there exists cointegration among variables. This indicates that the null hypothesis is rejected, as there is no cointegration in the null hypothesis of the Koa cointegration test. So, on the other hand, confirming the long-run relationship among government expenditures, exchange rate, inflation, cross-broader capital flows, and domestic investment.

Now this study performs panel regression estimation by assuming a symmetry relationship between government expenditures, exchange rate, inflation, capital flows, and domestic investment by applying panel ARDL estimation.

Linear ARDL is applied for the estimation of the linear impact of independent variables on the dependent variable. Outcomes of Linear ARDL in both developed and developing countries are reported in table 5.

Table 5 Linear ARDL

Linear ARDL						
Developing Countries				Developed countries		
Selected Model: ARDL(3, 1, 1, 1, 1, 1, 1, 1, 1)				**Selected Model: ARDL(1, 1, 1, 1, 1, 1, 1, 1, 1,)**		
Variable	**Coefficient**	**t-Statistic**	**Prob.***	**Coefficient**	**t-Statistic**	**Prob.***
Long Run Equation				**Long Run Equation**		
DEBT	-0.036113	-9.143036	0.0000	0.045297	3.070409	0.0024
FDI	0.052137	1.663017	0.0977	-0.046390	-5.323590	0.0000
GEXP	0.083551	5.865271	0.0000	-5.325004	-4.397122	0.0000
PINVS	-0.025042	-2.684474	0.0078	0.037005	2.480538	0.0138
IMPORT	-0.272326	-9.214811	0.0000	0.000580	0.013527	0.9892
INF	-0.043955	-1.516171	0.1308	0.281201	1.995436	0.0471
EXR	-2.729196	-3.741681	0.0002	0.303965	2.062261	0.0402
REMITT	-0.348962	-1.847785	0.0659	2.800257	5.185889	0.0000
PEXR						
NEXR						
Short Run Equation				**Short Run Equation**		
COINTEQ01	-0.466404	-4.035437	0.0001	-0.213391	-3.920270	0.0001
D(DINVS(-1))	0.311684	3.896571	0.0001			
D(DINVS(-2))	0.068193	0.983885	0.3262			
D(DEBT)	0.028580	0.811398	0.4180	-0.004608	-0.132155	0.8950
D(FDI)	-0.001940	-0.012825	0.9898	0.065617	1.399261	0.1630
D(GEXP)	0.484248	0.215135	0.8299	3.376563	0.627519	0.5309

D(PINVS)	0.025549	1.817872	0.0704	-0.010704	-1.387228	0.1666
D(IMPORT)	0.096234	2.205033	0.0284	0.141850	1.420203	0.1568
D(INF)	0.077986	1.810167	0.0716	0.150780	2.217949	0.0275
D(EXR)	7.221549	2.119979	0.0351	0.897913	1.424352	0.1556
D(REMITT)	1.337834	0.665667	0.5063	8.027282	1.393487	0.1647
D(PEXR)						
D(NEXR)						
C	25.88886	4.034133	0.0001	26.44498	4.105253	0.0001

Table 5 represents the short-run and long-run impact of explanatory variables on the dependent variable. Outcomes reveal FDI and GEXP have positive change transmits in DINVS otherwise DEBT, PINVS, IMPORT, INF, EXR, and REMITT have adversely connection with DINVS (like the work of Adams et.al 2016) in long period for developing countries. in case of developed countries, Outcomes highlights FDI and GEXP have adverse effects transmits in DINVS but DEBT, PINVS, IMPORT, INF, EXR, and REMITT have boosted impacts on DINVS for long period. It is proposing that in the long run domestic investment will be improved with more development in the exchange rate, inflation, and cross-border flows of capital in a country's economy. More precisely, increase in a 1% exchange rate, inflation, and flows of capital will make additional domestic investment by 0.303%, 0.281%, and 0.045, 0.037, 0.800, 0.0005%, respectively. For short period, FDI has degraded the DINVS but GEXP, DEBT, PINVS, IMPORT, INF, EXR, and REMITT have increases impacts on DINVS for developing countries. Results also suggest that 46 percent speed of adjustment and convergent to equilibrium. In the case of developing nations, the finding suggests the GEXP and DEBT has negative impacts on DINVS otherwise FDI, PINVS, IMPORT, INF, EXR, and REMITT have boosted relationship with DINVS. ECM term highlights that 21 percent speed of adjustment and convergent to equilibrium

Further, this research moved to estimate the nonlinearity between government expenditures, exchange rate, inflation, capital flows, and domestic investment following panel form Non-linear ARDL model, which is transmitted by adopting the nonlinear ARDL idea suggested by Shin et al. (2014). Table *6* presents the NARDL estimation of every sample, the first half of the table exhibits long-run coefficients results, the second half of the table represents short-run coefficients results. Moreover, table 6 displays the relationship summary between the positive and negative shock of exogenous variables and domestic investment both in the short and long run.

Non- Linear ARDL is applied for the estimation of nonlinear impacts of independent variables on the dependent variable. Outcomes of Non- Linear ARDL in both developed and developing countries reports in table 6.

Table 6 Non- Linear ARDL

Non-Linear ARDL						
Developing Countries				Developed countries		
Selected Model: ARDL(3, 1, 1, 1, 1, 1, 1, 1, 1)				Selected Model: ARDL(1, 1, 1, 1, 1, 1, 1, 1, 1)		
Variable	Coefficient	t-Statistic	Prob.*	Coefficient	t-Statistic	Prob.*
Long Run Equation				Long Run Equation		
DEBT	0.009956	0.454427	0.6500	0.015841	4.339670	0.0000
FDI	0.065524	1.005199	0.3159	-0.037076	-4.561022	0.0000
GEXP	0.264924	2.032396	0.0434	-4.722126	-11.13827	0.0000
PINVS	0.044355	2.225284	0.0271	-2.13E-05	-0.010564	0.9916
IMPORT	-0.021079	-0.629015	0.5300	0.019349	1.900248	0.0587
INF	-0.122746	-3.541657	0.0005	0.551468	11.59778	0.0000
EXR						
REMITT	-0.232332	-0.541080	0.5890	2.245564	4.613069	0.0000
PEXR	-0.073217	-0.017876	0.9858	18.44206	26.60330	0.0000
NEXR	-33.30277	-5.166743	0.0000	9.792539	18.39353	0.0000
Short Run Equation				Short Run Equation		
COINTEQ01	-0.262940	-7.993621	0.0000	-0.360071	-4.749083	0.0000
D(DINVS(-1))	0.296125	4.328816	0.0000			
D(DINVS(-2))						
D(DEBT)	2.30E-05	0.001050	0.9992	-0.018277	-0.538389	0.5908
D(FDI)	-0.061565	-0.448001	0.6546	0.038067	1.077335	0.2825
D(GEXP)	6.382242	2.201197	0.0288	5.856361	1.149446	0.2516
D(PINVS)	-0.002358	-0.158503	0.8742	-0.000231	-0.026350	0.9790
D(IMPORT)	0.023149	0.578849	0.5633	0.123568	1.423524	0.1559
D(INF)	-0.005448	-0.070552	0.9438	0.058939	0.848018	0.3973
D(EXR)						
D(REMITT)	0.810795	0.320939	0.7486	8.341472	1.461023	0.1454
D(PEXR)	2.301582	0.800654	0.4242	-9.231816	-1.567243	0.1184
D(NEXR)	-1.155538	-0.226674	0.8209	4.655386	1.676583	0.0950
C	4.910498	9.034507	0.0000	49.06117	4.778798	0.0000

Table 6 represents the short and long-run nonlinear effects of independent variables on the dependent variable. Outcomes reveal DEBT, FDI, PINVS, IMPORT, and GEXP have positive change transmits in DINVS (like the study of Adams et.al 2016) otherwise, INF, PEXR (positive shock in the exchange rate), NEXR (negative shock in the exchange rate) and REMITT have adversely connection with DINVS in long period for developing countries. in case of developed countries, Outcomes highlights PINVS, FDI and GEXP have adverse effects transmit in DINVS but DEBT, IMPORT, INF, EXR, and REMITT have boosted impacts on DINVS for long period (like work of Amadou, 2011 on the effect of foreign capital flows on domestic investment in Togo). For a short period FDI, PINVS, INF, and NEXR (negative shock in the exchange rate) has degraded the DINVS but GEXP, DEBT, IMPORT, PEXR (positive shock in the exchange rate), and REMITT have increases impacts on DINVS for developing countries such as the study of (Tung,2018, Canbaloglu and Gurgun (2018)). Results also suggest a 26 percent speed of adjustment and convergent to equilibrium. In the case of developing nations, the finding suggests DEBT, PINVS, and PEXR (positive shock in the exchange rate) have positive impacts on DINVS otherwise FDI, GEXP, IMPORT, INF, and NEXR (negative shock in the exchange rate) and REMITT have an inverse

relationship with DINVS (Feldstein (1995, Akinlo and Oyeleke (2018)). ECM term highlights that 36 percent speed of adjustment and convergent to equilibrium.

CONCLUSION AND RECOMMENDATION

The inflow of capital is mostly desired by all economies and specifically by underdeveloped economies as it plays a greater role in overcoming the insufficiency of the domestic resources (Nwokoma, 2013), whereas in the developed and industrialized economies it is required for further developing the economies (Obadan, 2004). Economic growth is the result of association amongst different macroeconomic variables, which comprises domestic investment, Exchange rate, flows of foreign capital, and several more. This research paper mainly focused on replying to the question of whether the impact of government expenditures, exchange rate, and capital flows on domestic investment is symmetric or asymmetric. The research applied model estimation containing two samples of panel data specifically, developing and developed nations spanning the period from 1995-2018. For exploring the relationship in the long run we adopted panel ARDL explained by Pesaran et al. (1999) and for asymmetric estimations by employing nonlinear framework explained by Shin et al. (2014), which is broadly accepted as nonlinear ARDL.

Model estimates along with panel ARDL established impacts in long run consecutively from government expenditures cross border flows of capital, and exchange rate to domestic investment in two samples of developed and developing countries. Hence, it can be supposed that in the long run domestic investment will be augmented with government revenue expansion, exchange rate through more goods, financial services, and further inflows of imported capital in the economy of any country. Moreover, short-run impacts were also analyzed which confirms the relationship between selected variables. Study outcomes through nonlinearity estimation confirm asymmetric relationship among Government expenditures, exchange rate, flows of foreign capital, and domestic investment, in the long and short run, implementable for developed and developing countries. In respect of investment policy concerns, and so, it is important to discuss the variability in macroeconomic parameters specifically, government expenditures, exchange rate, inflation, and cross-border flows of capital. It is due to interaction impacts not only related to domestic investment but also connected with macroeconomic economic development.
In addition, of course, the huge inflows of capital are subject to various kinds of nation precise environments, comprising the nature of fundamental capital inflows- specifically, the degree to which they reveal domestic investment or external factors and the level to which the capital inflows are estimated to be determined - the phase of the business cycle and fiscal policy condition. Furthermore, the domestic financial markets quality also plays a key role.

Less inflation also employs a discipline on prices, raising struggles to increase production and hence increase the domestic investment. Moreover, keeping a view on public expenditure growth balanced may help on limitation of real currency appreciation and raise well economic growth and investment products. Secondly, restriction on nominal exchange rate appreciation over pasteurized interference is expected to be unproductive when the inflow of capital is determined. Thirdly, restraining capital controls has not in common been related with superior results. So, higher financial development motivates to development of upcoming investment levels, suggesting an effective long-run impact of financial development over domestic investment. The outcomes indicate that financial development may encourage economic growth and development through capital accumulation.

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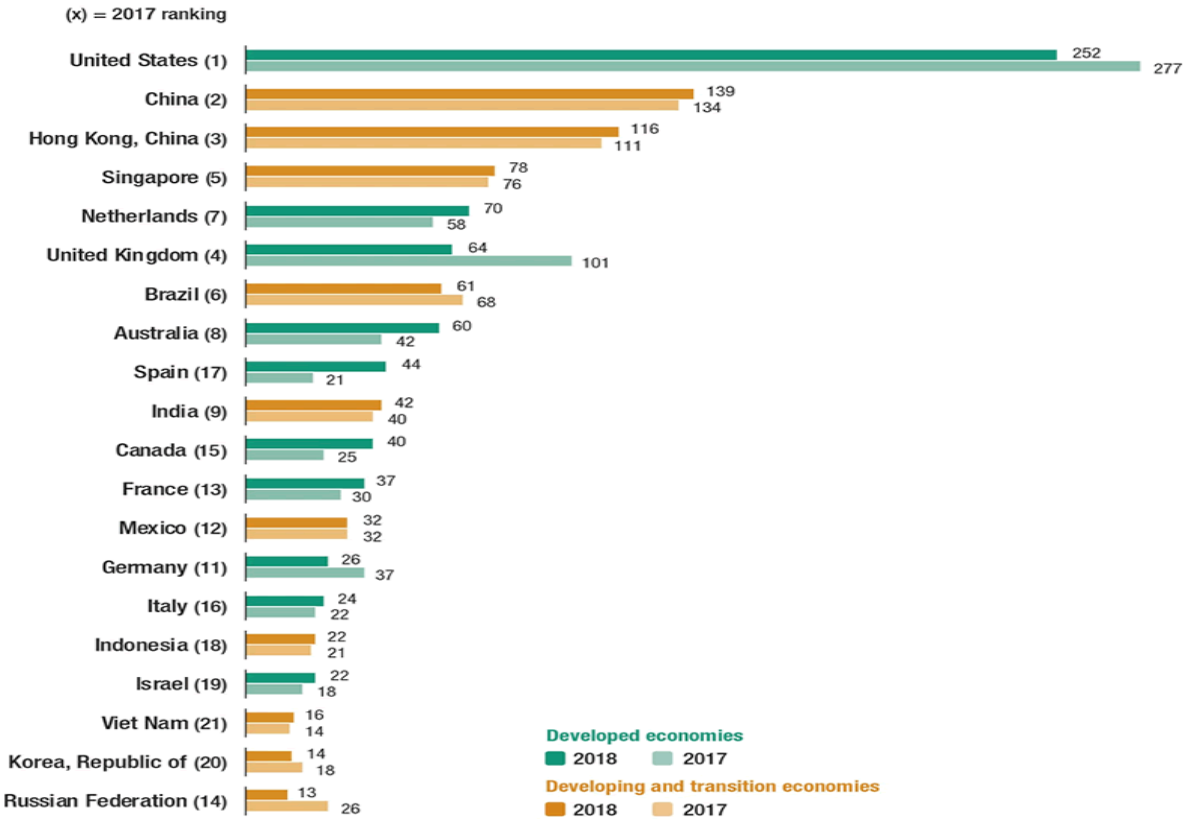
APPENDIX A

FDI inflows, top 20 host economies, 2017 and 2018
(Billions of dollars)



Source: UNCTAD (World investment report, 2019).

APPENDIX B

FDI inflows, top 40 host economies, 2017 and 2018
(Billions of dollars)

1. Rank	**2. Name of selected TOP 20 developed countries** **3.**	**4. Name of selected TOP 20 developing countries**
5.	**6. United States**	**7. China**
8.	**9. Netherlands**	**10. Hong Kong, china**
11.	**12. United kingdom**	**13. Singapore**
14.	**15. Australia**	**16. Brazil**
17.	**18. Span**	**19. India**
20.	**21. Canada**	**22. Mexico**
23.	**24. France**	**25. Indonesia**
26.	**27. Germany**	**28. Viet Nam**
29.	**30. Italy**	**31. Korea, Republic of**
32.	**33. Israel**	**34. Russian federation**
35.	**36. Ireland**	**37. Hungary**
38.	**39. Switzerland**	**40. Saudi Arabia**
41.	**42. Belgium**	**43. Poland**
44.	**45. Sweden**	**46. Thailand**
47.	**48. Japan**	**49. Colombia**
50.	**51. Norway**	**52. Kazakhstan**
53.	**54. Chile**	**55. Turkey**
56.	**57. Cyprus**	**58. South Africa**
59.	**60. Austria**	**61. Malaysia**
62.	**63. Portugal**	**64. Nigeria**

Source: UNCTAD (World investment report, 2019)