



## The Effect of Financial Crisis and Macroeconomic Factors on Foreign Direct Investment in Developing Countries

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### ABSTRACT

Developing countries need Foreign direct investment (FDI) to be at par with the progress of developed countries. The dearth of study on the effects of financial crisis on FDI justifies the objective which is to examine the potential effect of financial crisis inclusive of macroeconomic factors as control variables on FDI in dataset 23 developing countries for the period 1993-2013. This study includes descriptive analysis, correlation test, stationary test and regression analysis. The random effects (RE) generalized least square estimator is used in the regression to examine the potential effect of financial crisis and macroeconomic factors on the inflow of FDI. Foremost, the US financial crisis has a positive significance to the inflow of FDI which validates Krugman's theory on fire-sale FDI. However, country specific economic recession, lending rates and natural resources discourage inflow of FDI. Nonetheless, trade openness, domestic currency, money supply and domestic fixed investment encourage FDI in developing countries.

**Keywords:** Foreign Direct Investment, Financial Crisis, REM, Developing Countries

**JEL Classifications:** C33, F21, G01, P52

### 1. INTRODUCTION

Foreign direct investment is a significant issue in the global demand for capital. The growth in Foreign direct investment (FDI) is essential for countries to sustain and escalate economic growth and also improve the social welfare of a country. Developing countries in their pursuit to be at par with developed countries need a consistent growth in FDI. Foreign investors through FDI bring benefits to the developing countries' growth in terms of technology transfer, employment opportunities for the local residence, efficiency in management and marketing, access to raw materials, increased productivity and competitiveness and economies of scale (Moosa, 2002).

On that note, growth of FDI has significant positive consequences on the development of a developing country in terms of economic, social and political elements. Therefore the presence and growth of FDI is clearly important for the growth and social welfare of a developing country. However, a developing country's financial crisis (economic recession) could deter the inflow of FDI. Hence, this study is motivated by the necessity to determine the effect of

financial crisis and country specific economic recession inclusive of macro-economic factors as control variables on the inflow of FDI in developing countries.

### 2. LITERATURE REVIEW

One of the theories that is prominent in the literature of FDI is the eclectic theory by Dunning (1977, 1979, and 1988) which postulates that ownership, internalization and location factors will influence foreign direct investment. This theory and other FDI theories (Weber, 1929; Mundell, 1957; Vernon, 1966; 1974; 1979; Kindleberger, 1969; Aliber, 1970, 1971; Caves, 1971; 1982; Hymer, 1976; Buckley and Casson, 1976; Rugman, 1975; 1977; Dunning, 1977; 1979; 1988; Kojima, 1978; Lessard, 1976; Agmon and Lessard, 1977; Schneider and Frey, 1985; Froot and Stein, 1991) have been repeatedly tested and the literature on the determinants of FDI has reported various methodologies and empirical results. In addition, the studies on the effect of financial crisis, either global financial crisis or country specific economic crisis, has generated dissimilar results based on the different method, different period and different region being investigated.

In different parts of the world, the studies on the effect of financial crisis on the inflow of FDI in developing countries has generated mix findings. Stoddard and Noy (2015) conducted a study on 40 emerging/developing countries for the period 1987 until 2008 using the generalized method of moment (GMM) and found that financial crisis had a negative significance on the inflow of FDI. (Depalcitra and Dai, 2012) conducted a study of the effect of the global financial crisis on a panel data from 1992-2008 of ASEAN countries in which it was found that the global financial crisis has had no significance on ASEAN countries. Thangavelu et al. (2009) conducted a study of the effect of the Asian Financial Crisis on selected Asian countries using the fixed effects model for the period 1998 until 2007. The study found that the Asian Financial Crisis had a negative significance to inflow of FDI.

As for the studies on the effect of macroeconomic factors on FDI, the findings of these studies vary from region to region. Peltonen et al. (2012) conducted a study on 31 emerging countries using a quarterly panel data set for the period 1990 until 2008. The study employed: (i) The pooled OLS (dynamic OLS) estimator, (ii) the pooled OLS estimator with time effects, (iii) the pooled OLS with both time and country effects, (iv) the fixed estimator, (v) the RE estimator and (vi) the IV/GMM estimator. The study found that interest rate had a negative significance to inflow of FDI. Angelo et al. (2010) conducted a study in Brazil on the determinants of FDI by using monthly data for the period June 2000 until June 2007 by employing the two stage least square regression analysis. The study found that interest rate had a negative significance to the inflow of FDI. Jadhav (2012) conducted a study on Brazil, Russia, India, China and South Africa using panel data for the period 2000 until 2009 by employing the multiple regression analysis. The study found that trade openness had a positive significance to the inflow of FDI. Liargovas and Skandalis (2011) conducted a study on the importance of trade openness in attracting foreign direct investment for the 1990-2008. The sample consisted of 36 developing economies using a set of cross country panel data. The fixed effect model was used when performing the regression analysis. The study found that trade openness was positively significant to the inflow of FDI. Vogiatzoglou (2007) investigated the investments of 10 home countries in the developed region and 9 host countries in Asia from 1994-2003. The study employed the dynamic GMM estimation method. The degree of openness had a positive significance to inward foreign direct investment into South and East Asia. Jimenez (2011) conducted a study on FDI from Spain, France and Italy into 14 countries of North African and CEE countries (Algeria, Bulgaria, Egypt, Czechoslovakia, Slovenia, Estonia, Hungary, Latvia, Lithuania, Morocco, Poland, the Czech Republic, Romania and Tunisia) for the period 1999-2006. The study found that exchange rate had a positive significance to the inflow of FDI. Liargovas and Skandalis (2011) conducted a study on 36 developing countries for the period 1990 until 2008 by employing the regression analysis based on the fixed effect model. The study found that exchange rate had a positive significance on the inflow of FDI. Vita and Kyaw (2007) in Brazil, Mexico, Korea, the Philippines and South Africa by using quaterly data for the period 1976 until 2001. The objective was to determine the effect of macro economic variables on capital flows by employing impulse response and variance decomposition

analyses. The study found that in the short run, money supply had a positive significance to capital flows which includes FDI. Bond (1998) conducted a study using time series data from 1984 until 1995 on Thailand and Indonesia. The study employed the ordinary least square method and instrumental variables to determine the effect of monetary policy on capital inflows. The study found that monetary policy had a positive significance to capital inflows which includes FDI. Jiang et al. (2013) conducted a study on China by using data from 1985 until 2006 and employing regression analysis based on the pooled least squares method. The study found that quality of infrastructure had a positive significance to the inflow of FDI. Kok and Ersoy (2009) conducted a study for 24 developing countries by employing a regression analysis based on fully modified OLS for the period 1983-2005 and cross section seemingly unrelated regression for the period 1976-2005. The study found that telephone mainlines and gross capital formation had a positive significance to the inflow of FDI. Vogiatzoglou (2007) investigated the investments of 10 home countries in the developed region and 9 host countries in Asia from 1994 to 2003. The study employed the dynamic GMM estimation method. The availability of natural resources had no significance on inflow of FDI. Asiedu and Lien (2004) conducted a study that covered East Asia, Latin America, North Africa and Middle East and Sub-Saharan Africa. The analysis covered 96 developing countries over 1970-2000. The fixed-effects panel estimation was employed. The study found that availability of natural resources had no significance on inflow of FDI.

### 3. METHODOLOGY

#### 3.1. Data and Estimation

Historical data of 23 countries from 1993 until 2013 are collected from the International Financial Statistics and Balance of Payment of the International Monetary Fund, the World Bank Open Data database, the United Nations Conference on Trade and Development database and the global market information database. The 23 countries being examined are China, Hong Kong, India, Kuwait, Malaysia, Pakistan, Philippines, Thailand, Argentina, Chile, Colombia, Guatemala, Mexico, Peru, Uruguay, Venezuela, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania and Poland. The reason for the selection of 23 countries being examined is to due to the non availability of data from other developing countries and subsequently, the panel dataset is set as a balanced panel. The macroeconomic data which are treated as control variables included are interest rate, trade openness, exchange rate, money supply, gross fixed capital formation (GFCF), natural resources rents (NRR). The macroeconomic data (with the exception of trade openness, money supply and GFCF), are transformed with natural logarithm to ensure that there is no stationarity problem that is presence of unit root (Table 1). Logarithmic transformations are also a convenient means of transforming a highly skewed variable into one that is more approximately normal. Preliminary analysis which includes the descriptive statistics and correlation test are also conducted on the regressors included in the regression model. The macroeconomic factors inclusion in the model were determined by the Pesaran's cross-section augmented Im-Pesaran-Shin (CIPS) and Pesaran's

Cross-sectional Augmented Dickey Fuller (CADF) stationarity tests. The regression analysis is based on the RE generalized least square (GLS) method. The RE GLS is the appropriate model for this regression as this model caters for time variant and time invariant factors as well as the heterogeneity of the 23 developing countries. In addition, a Hausman test was conducted to ascertain whether the fixed effect or the RE was the appropriate model.

The results of the Hausman test indicated a non rejection of the null hypothesis (difference in coefficient not systematic) which means that the RE model is the appropriate model. Post diagnostic tests which includes the Breusch and Pagan lagrange multiplier (LM) test for RE, the variance inflation factor (VIF) and the Wald tests of simple and composite linear hypotheses are performed to ensure that the model is correctly specified, consistent and efficient. The results of the Breusch and Pagan LM test for Model 2 (Table 2) shows that the chi square (X<sup>2</sup>) is 1043.38 with a P-value of  $\chi^2 < 0.01$  which indicates a rejection of the null hypothesis of the variance is equal to zero [Var( $\mu$ ) = 0]. Therefore this indicates that the appropriate estimator is the GLS RE model. The results of the VIF shows that the VIF are <10 for all regressors that are significant in Model 2 (Table 2). The test for coefficient validity which is the Wald test in which the test carries the null of each parameter that is  $\beta=0$ . A rejection of the null hypothesis indicates that the coefficient of the parameter is not zero and the results show that the Wald test X<sup>2</sup> is 124.58 for Model 2 with a probability i.e., P-value <0.01 which indicates a rejection of the null hypothesis. The list of variables are listed in Table 1 and the results of all the analysis as mentioned above are shown in Section 4.

### 3.2. Model Specification

A linear regression model is specified to obtain the determinants of the inflow of FDI in 23 developing countries.

The model being estimated in this study is stated as follows:

$$FDI_{it} = \alpha + \beta_1 LR_{it} + \beta_2 TO_{it} + \beta_3 ER_{it} + \beta_4 MS_{it} + \beta_5 GFCF_{it} + \beta_6 NRR_{it} + \beta_7 C_{it} + \mu_{it} + \epsilon_{it} \quad (1)$$

Where FDI= inflow of FDI Per Capita

$\alpha$ =The constant term

$\beta$ =Coefficients of the crisis dummy and macroeconomic factors

LR=Lending rate

TO=Trade openness

ER=Exchange rate

MS=Money supply/gross domestic product (GDP)

GFCF=Gross fixed capital formation/GDP

NRR=Natural resources rents/GDP

C=Financial crisis dummy or economic recession dummy

$\mu_{it}$ =The unit-specific error term

$\epsilon_{it}$ =Idiosyncratic error component.

## 4. EMPIRICAL RESULTS

### 4.1. Descriptive Analysis

The results and findings of the descriptive analysis and correlation test are shown below in Tables 3 and 4 respectively. The stationary

**Table 1: Variables included in the regression model**

Variables	Measurement	Data transformation
FDI	Inflow of FDI in USD	Natural logarithm
Interest (LR)	Lending rate	Natural logarithm
TO	(Import+export)/GDP	None
ER	USD	Natural logarithm
MS	Money supply/GDP	None
Infrastructure (GFCF)	Gross fixed capital formation/GDP	None
NRR	Natural resources rent as a percentage of GDP	Natural logarithm
Financial crisis and country specific economic recession	Dummy one for occurrence of financial crisis or economic recession	None

FDI: Foreign direct investment, TO: Trade openness, ER: Exchange rate, MS: Money supply, NRR: Natural resources rent, GDP: Gross domestic product

**Table 2: Random effects models for financial crisis**

Regressors	Model 1	Model 2
Lending rate	-0.0904 <sup>b</sup> (0.0458)	-0.0912 <sup>b</sup> (0.0442)
Trade openness	0.3069 <sup>a</sup> (0.1068)	0.3072 <sup>a</sup> (0.1056)
Exchange rate	0.5053 <sup>a</sup> (0.1121)	0.4845 <sup>a</sup> (0.1121)
Money supply	0.3906 <sup>a</sup> (0.1443)	0.4027 <sup>a</sup> (0.1431)
Gross fixed capital formation	0.1613 <sup>b</sup> (0.0681)	0.1543 <sup>b</sup> (0.0678)
Natural resources rents	0.1145 <sup>a</sup> (0.0366)	-0.1139 <sup>a</sup> (0.0361)
US financial crisis dummy	0.1321 <sup>b</sup> (0.0591)	0.0997 <sup>c</sup> (0.0593)
Recession dummy	-0.0489 (0.0482)	
Recession <sub>t-1</sub> dummy		-0.1092 <sup>b</sup> (0.0467)
Constant	5.0587	5.0959
R <sup>2</sup> (within)	0.1667	0.1752
R <sup>2</sup> (between)	0.5844	0.5801
R <sup>2</sup> (overall)	0.4684	0.4677
Panel level standard deviation of $\mu^i$	0.5027	0.5023
Standard deviation of $\epsilon^i$	0.4346	0.4324
$\rho$ (fraction of variance due to $\mu^i$ )	0.5722	0.5743
Chi-square X <sup>2</sup>	119.24	124.58
Wald test (Chi-square X <sup>2</sup> )	0.0000	0.0000
Number of observations	483	483

<sup>a,b,c</sup>Denotes significance level at 1%, 5% and 10%; the figure in parenthesis is the robust standard error

test results are shown in Tables 5 and 6 and the random effect GLS regression results are shown in Table 2.

Referring to Table 3, the standard deviation of the inflow of FDI PC indicates a moderate variation in the inflow of FDI PC among the developing countries. There is a variation in the lending rate of the countries in the panel as expected due to the heterogeneity of the financial system in the panel. With regard to trade openness, these developing countries adopted similar

**Table 3: Descriptive statistics summary of macro-economic regressors**

Statistics	FDI per capita (\$USD million)	LR (per cent)	TO	ER(\$USD)	M2/GDP	GFCF/GDP	NRR/GDP (per cent)
Mean	468.5329	16.70316	0.940576	0.616008	0.640887	0.340826	7.335322
Max	14046.87	291.0630	4.583322	30.57080	3.363218	4.472497	62.62358
Min	-129.4716	4.248000	0.149701	0.000349	0.076251	0.094212	0.000705
Standard deviation	1486.507	21.98658	0.705957	1.887378	0.528625	0.600333	11.27381

Note: Number of observation for each of the variable is 483, FDI: Foreign direct investment, LR: Lending rate, ER: Exchange rate, GDP: Gross domestic product, NRR: Natural resources rents, GFCF: Gross fixed capital formation, Number of observation for each of the variable is 483

**Table 4: Correlation test results of regressors and inflow of FDI**

Variables	FDI PC	Lending rate	Trade openness	Exchange rate	Money supply	Gross fixed capital formation	Natural resources rents	US Financial crisis	Recession	Recession <sub>t-1</sub>
FDI PC	1									
Lending Rate	-0.20 <sup>a</sup>	1								
Trade Openness	0.66 <sup>a</sup>	-0.38 <sup>a</sup>	1							
Exchange Rate	0.00	0.12 <sup>a</sup>	0.03	1						
Money Supply	0.49 <sup>a</sup>	-0.46 <sup>a</sup>	0.74 <sup>a</sup>	-0.10 <sup>b</sup>	1					
Gross Fixed Capital formation	0.06	0.12 <sup>a</sup>	-0.11 <sup>b</sup>	-0.13 <sup>a</sup>	-0.05	1				
Natural resources rents	-0.60 <sup>a</sup>	0.10 <sup>b</sup>	-0.65 <sup>a</sup>	0.24 <sup>a</sup>	-0.56 <sup>a</sup>	-0.06	1			
US financial crisis dummy	0.07	-0.12 <sup>a</sup>	0.04	-0.02	0.06	0.05	0.04	1		
Recession dummy	-0.10 <sup>b</sup>	0.36 <sup>a</sup>	-0.16 <sup>a</sup>	0.01	-0.19 <sup>a</sup>	0.03	0.00	0.05	1	
Recession <sub>t-1</sub> dummy	-0.13 <sup>a</sup>	0.25 <sup>a</sup>	-0.13 <sup>a</sup>	-0.05	-0.18 <sup>a</sup>	0.04	0.01	-0.18 <sup>a</sup>	0.35 <sup>a</sup>	1

Number of observation for each of the variable is 483; <sup>a</sup>denotes significance level at 1%, <sup>b</sup>denotes significance level at 5%; <sup>c</sup>denotes significance level at 10%

**Table 5: Cross-section augmented Im, Pesaran and Shin (CIPS) Stationary Test**

Variable	No constant no trend with (i)	Constant with (i)	Constant and trend with (i)	No constant no trend with (ii)	Constant with (ii)	Constant and trend with (ii)
FDI PC	-1.954 <sup>a</sup> (1)	-2.247 <sup>a</sup> (1)	-2.603 <sup>c</sup> (1)	-1.923 <sup>a</sup> (1)	-2.188 <sup>b</sup> (1)	-2.603 <sup>c</sup> (1)
Lending rate	-2.052 <sup>a</sup> (1)	-2.551 <sup>a</sup> (1)	-2.698 <sup>b</sup> (1)	-2.061 <sup>a</sup> (1)	-2.626 <sup>a</sup> (1)	-2.735 <sup>b</sup> (1)
Trade openness	-1.661 <sup>b</sup> (1)	-2.268 <sup>b</sup> (1)	-2.358(1)	-1.720 <sup>b</sup> (1)	-2.328 <sup>a</sup> (1)	-2.327(1)
Exchange rate	-0.545(1)	-2.423 <sup>a</sup> (1)	-3.366 <sup>a</sup> (1)	-0.545(1)	-2.423 <sup>a</sup> (1)	-3.026 <sup>a</sup> (1)
Money supply	-1.792 <sup>a</sup> (1)	-2.515 <sup>a</sup> (1)	-2.499(1)	-1.797 <sup>a</sup> (1)	-2.519 <sup>a</sup> (1)	-2.516(1)
Gross fixed capital formation	-1.521 <sup>c</sup> (1)	-2.168 <sup>b</sup> (1)	-2.308(1)	-1.503 <sup>c</sup> (1)	-2.206 <sup>b</sup> (1)	-2.289(1)
Natural resources rents	-1.403(1)	-2.601 <sup>a</sup> (1)	-2.852 <sup>a</sup> (1)	-1.378(1)	-2.583(1)	-2.827 <sup>a</sup> (1)

FDI: Foreign direct investment. <sup>a</sup>Denotes cv1 (significance at 1%), <sup>b</sup>denotes cv5 (significance at 5%) and <sup>c</sup>denotes cv10 (significance at 10%); the figure in parenthesis denotes the maximum lag; N, T=(23,21) with 483 observations; the Z[t-bar] statistic parallel to IPS (2003) Z[t-bar] is distributed standard normal under the null hypothesis of non-stationarity; the dynamics is lags criterion decision general to particular, based on F joint test; individual ti were truncated during the aggregation process; (i) denotes the dynamics in Wald test of composite linear hypothesis about the parameters of the model; (ii) denotes the dynamics in lags criterion decision Portmanteau (Q) test for white noise

FDI liberalization and trade liberalization policies. Variation in the exchange rate is expected due to the heterogeneity of the developing countries domestic currency against the \$USD. The variation in the money supply among the developing countries indicates the difference in monetary policies practiced by each developing country. The variation in the domestic fixed investment (GFCF) indicates the difference in technological advancement on infrastructure of each country. The variation in its natural resources indicates the variation in each country's natural resources endowments.

Referring to Table 4, US financial crisis dummy is positively correlated to the inflow of FDI. However, the economic recession is negatively correlated to the inflow of FDI. The lending rate and natural resources are also negatively correlated to the inflow

of FDI. Nevertheless, trade openness and money supply are moderately positively correlated to inflow of FDI. However, exchange rate and GFCF has no correlation to the inflow of FDI.

#### 4.2. Stationary Test

Tests of stationary were conducted by using the Pesaran's CIPS developed by Pesaran (2007) and Pesaran's CADF developed by Pesaran (2003). This procedure is essential to ensure that the regressions produced are not misspecified or spurious in nature. Also, these tests cater to the heterogeneity and cross-section dependence present in the panel data set.

In Tables 5 and 6, the results of the stationary test showed that all the macro-economic variables are statistically significant to be included in the estimation of the regression model (Equation 1).

**Table 6: CADF Stationary test**

Variable	Lag	No truncation <sup>1</sup>	No truncation <sup>1</sup>
		Constant	Constant and trend
FDI PC	Level	-2.433 <sup>a</sup>	-2.582 <sup>c</sup>
	Lag 1	-1.785	-1.926
Lending rate	Level	-2.551 <sup>a</sup>	-2.698 <sup>b</sup>
	Lag 1	-3.041 <sup>a</sup>	-3.330 <sup>a</sup>
Trade openness	Level	-2.551 <sup>a</sup>	-2.358
	Lag 1	-1.902	-1.971
Exchange rate	Level	-2.423 <sup>a</sup>	-3.472 <sup>a</sup>
	Lag 1	-1.518	-2.566 <sup>c</sup>
Money supply	Level	-2.515 <sup>a</sup>	-2.499
	Lag 1	-2.197 <sup>b</sup>	-2.211
Gross fixed capital formation	Level	-2.168 <sup>b</sup>	-2.308
	Lag 1	-2.655 <sup>a</sup>	-2.727 <sup>b</sup>
Natural resources rents	Level	-2.601 <sup>a</sup>	-2.852 <sup>a</sup>
	Lag 1	-2.757 <sup>a</sup>	-3.028 <sup>a</sup>

<sup>a</sup>Denotes cv1 (significance at 1%), <sup>b</sup>Denotes cv5 (significance at 5%) and denotes cv10 (significance at 10%); the Z[t-bar] statistic parallel to IPS (2003) Z[t-bar] is distributed standard normal under the null hypothesis of non-stationarity; analogous to IPS (2003) test, Pesaran's CADF is consistent under the alternative that only a fraction of the series is stationary; <sup>1</sup>denotes cross-sectional average in first period extracted and no truncation of extreme t-value, CADF: Cross-section augmented Dickey Fuller

### 4.3. Regression Results

The next analysis is the regression based on the GLS RE model and the results are presented in Table 2.

The regression results in Table 2 (Model 2) shows that the US financial crisis is statistically significant at the 10% significance level and indicating a positive effect on the inflow of FDI. Therefore, there is evidence of a fire-sale FDI as theorized and conceptualized by Krugman (2000). According to Krugman (2000), historically, during the Asian financial crisis and Latin America crisis, fire-sale (extreme discounted prices) transactions occurred in these regions. Although there was a flight of short term capital and sell-offs of foreign equity holdings during these crises, simultaneously there was an inward flow of foreign direct investment. Policy changes led to abolishment of old policies that deterred FDI and the desperation for cash by local firms encouraged FDI. Multinational firms reacted to this attractive and liberalized FDI policies by acquiring companies and assets at fire-sale prices in these regions during the crises. In contrast, lending rate and natural resources are affecting the inflow of FDI unfavourably at the 5% significance level and 1% significance level respectively. In addition, the economic recession at lag 1 affects FDI negatively at 5% significance level. As interest rise up, borrowing is reduced as well as investment is reduced as high interest rates in a host country will indicate that debt financing for business operations in the host country is costly. In the case of natural resources, abundance of natural resources would deter non-resource seeking FDI that seeks developing country's endowments other than natural resources.

However, trade openness, exchange rate, money supply and GFCF are factors that encourage inflow of FDI at the 1% significance level and 5% significance level as shown in Table 2 (Model 2). Trade openness indicates a country's openness to international trade and a higher degree or level of openness would attract

inflow of FDI. The abundance of money supply also attracts more inflow of FDI as this will indicate the efficiency of a developing country's monetary policy. An expansionary monetary policy which implies a lowering of interest rates should encourage the inflow of FDI in developing countries. As for the positive influence of exchange rate on the inflow of FDI, supporting this result is the study by Ouerghi (2013) who conducted a study on the resilience of emerging countries during the global economic crisis of 2008 and found that an adequate exchange rate regime will improve an emerging country resilience during a financial crisis. Referring to GFCF (domestic investment), a developing country that is well endowed with a developed and technologically advanced physical infrastructure appeals to foreign investors.

## 5. CONCLUDING REMARKS

The study found that the US financial crisis attracted FDI rather than deter FDI as theorized by Krugman (2000). Therefore, the finding of this study adds to the existing literature on the effect of the US financial crisis on the growth of FDI in developing countries. However, country specific economic crisis (recession) has a negative influence on the inflow of FDI. This implies that each developing country should work on formulating policies to attract FDI. Strengthening macro-economic management should reduce the occurrence of a developing country's financial crisis to attract and sustain the growth of inflow of FDI.

A country specific economic recession is detrimental to the growth of FDI in developing countries as foreign investors avert from countries that encounters economic meltdowns. Ascertaining the converging or deterring factors influencing FDI would enable policy makers to formulate policies such as liberalizing FDI policies, trade policies and improving physical infrastructure to attract FDI. In addition, country specific differences which accounts for heterogeneity can be narrowed by partaking in bilateral agreements among developing countries to encourage the inflow and growth of FDI. Nevertheless, the study is limited to aggregated macro-economic level secondary data that considers FDI flows. Also, the study is constraint by the availability of data of each country. It is suggested that FDI stocks and Foreign Portfolio Investment (FPI) are considered in future studies.

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