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FDI and Economic Growth in Emerging World: An Empirical Investigation

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Abstract

For the past two decades the major industrialising world of emerging markets has been playing a significant role in global economic and business development. These economies are indeed abundant in resources particularly human resources, but lag much behind of developed world in terms of financial capital. Hence, they have to find overseas market as a prime source of their capital and are strategically oriented towards attracting such foreign capital. However, global investor's pays more concern on economic and financial growth conditions prevailing their target markets. This study examines the causal relations between FDI inflows and economic growth in 17 emerging economies under a panel regression framework. The study covers a period of 14 years from 2003 to 2016 under the impression of covering distinct phases of economic cycle. The study found bilateral causality between FDI and economic growth in emerging market settings. GDP of emerging markets are significantly influenced by the FDI inflows and the observation is true with regard to all types of FDI modes. About 70 percent of economic growth in emerging markets is effected by their Greenfield FDI receipts. Hence, regulators in emerging markets should make measures to encourage FDI for their continued growth and development.

Keywords: FDI; emerging economies; Greenfield; panel regression; bilateral causality.

Introduction

Foreign direct investment (FDI) has become the prime source of private capital for most emerging markets today. From the very beginning of globalization, emerging economies are strategically oriented towards attracting foreign investors to their home. The potentials of cost effective production coupled with high level of consumerism tempt the foreign players to start their ventures in emerging markets. The birth of World Trade Organization (WTO) and the policy initiatives designed by it often compel the leading emerging markets to liberalize their trade laws for making their markets conducive for the growth of multinationalism. In other sense, most developing and transition economies have been moved to market oriented strategies to gain momentum and growth in economic activities there. In sum, globalization offers an unparalleled opportunity for the emerging economies to attain rapid economic growth through trade and investment liberalization.

One outstanding feature of the present-day world has been the circulation of private capital flow in the form of foreign direct investment (FDI) in developing countries, especially since 1990s. Since the 1980s, multinational corporations (MNCs) have come out as major actors in the globalization context. Governments around the world—in both advanced and developing countries—have been attracting MNCs to come to the respective countries with their FDI. This experience may be related to the broader context of liberalization in which most developing and transition countries have moved to market-oriented strategies. In this context, globalization offers an unparalleled opportunity for developing countries like India to attain quicker economic growth through trade and investment.

Foreign Direct Investment (FDI) is considered to be the lifeblood of economic development, especially for emerging economies. It plays an important role in the long run development of a country not only as a source of capital, but also for enhancing

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the competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating employment opportunities (Kumar & Gupta, 2012). FDI is generally viewed as an engine for the development and transfer of technology. FDI occurs mainly in two forms, namely greenfield investment and mergers and acquisitions (Ramakrishna, 2011). Furthermore, FDI plays a vital role in the economy because it doesn't only provide opportunities to host countries to enhance their economic development, but also opens new avenues to home countries to optimise their earnings by employing their idle resources.

Though the flows of FDI have been prevailing in the world throughout the past six decades, the volume, location and composition of FDI flows have changed markedly over the period. During the past two decades FDI plays a very significant role in the global economy.

Theoretical Framework

FDI and Macro- Economic Conditions In Emerging Economies – A Description

Emerging Economies:

In the 1970's, 'less developed countries' (LDC) was the common term for markets that were less developed (by objectives or subjective measures) than the developed countries such as the United States, Western Europe & Japan. These markets were supposed to provide greater potential for profit, but also more risk from various factors. This term was thought by some to be politically incorrect so the emerging market label was created. The term is misleading in that there is no guarantee that a country will move from 'more developed' to 'less developed'.

Originally brought into fashion in 1980, by then World Bank economist Antoine Van Agtamae, the term is sometimes loosely used as a replacement for emerging economics, but really signifies a business phenomenon that is not fully described by or constrained to geography or economic strength; such countries are considered to be in a transitional phase between developing and developed status.

Examples of emerging markets include Indonesia, Iran, some countries of Latin America, some countries in south east Asia, most of the countries of eastern Europe, Russia some countries in the middle east and parts of Africa.

Definition

Even though the word emerging market is an often used word in the international business literature, most authors do not give a definition of emerging markets, probably understanding it as known. Different authors focus on different aspects of markets, some thoughts are as follows:

❖ "Emerging markets are high-growth developing countries that represent attractive business opportunities for western firms."... "Emerging markets share remarkable features in terms of economic potentials.- CAVUSGIL (1987)
❖ "Emerging market country is a society transitioning from a dictatorship to a free market oriented economy, with increasing freedom, gradual integration with the global market place and with other members of global emerging market, an expanding middle class, improving standards of living, social stability & tolerance, as well as an increase in cooperation with multilateral institutions." -Dr. KVINT (1999)
❖ International Monetary Fund (IMF) states that an emerging market is defined by a GDP per capita ratio that ranges between $2000 and $12000.

In short emerging markets is a country that has some characteristics of a developed market but does not meet standards to be a developed market. This includes countries that may be developed markets in the future or where in the past.

Characteristics:

❖ Lower level of economic development (less developed country) which could be expressed in GDP per capita.
❖ Government does an attempt to create framework of a market economy (and democratic society) through an adequate economic (and political) reforms.
❖ High rate of growth which could be expressed through GDP growth rate (it should be at least 5% per year), that is caused by a governmental attempt to create market economy.
❖ A huge room for future growth, which could be expressed through difference between obtained level of economic development (also PPP should be used as a criteria) and an average GDP of the countries.

❖ Capital markets are less mature in these countries than developed markets.

Macro-Economic Indicators of Emerging Economies:

- ✓ Gross Domestic Product (GDP)
- ✓ Per capita Income
- ✓ Balance of Payment (BOP)
- ✓ Foreign Exchange Reserves (Forex)
- ✓ Real Effective Exchange Rate (REER)
- ✓ Real Interest Rate

Objectives of the Study

1. To analyse the macroeconomic performance of emerging economies during the 2003-2016 period.
2. To examine the component wise FDI inflows to emerging economies during the 2003-2016 period.
3. To assess the causal linkage between macroeconomic performance and FDI inflows into emerging world.

Methodology

Sample and data

The present study aims to compare macroeconomic performance and FDI growth of emerging economies. For this purpose, the study selected 17 emerging economies from the source list supplied by International Monetary Fund (IMF) in this regard.

The emerging economies are

- ✓ Brazil
- ✓ Chile
- ✓ China
- ✓ Colombia
- ✓ Egypt
- ✓ Greece
- ✓ Hungary
- ✓ India
- ✓ Thailand
- ✓ Indonesia
- ✓ Korea, Republic
- ✓ Malaysia
- ✓ Mexico
- ✓ Peru
- ✓ Philippines
- ✓ Poland
- ✓ South Africa

The source data for the study comprises of value of FDI inflows under the Greenfield mode and Mergers and acquisition mode of 17 emerging economies over the period of 14 years. Along with, the data relating to various macro-economic indicators such as GDP rate, per capita income, Balance of Payment , Foreign Exchange Reserves, Real Effective Exchange Rate, Real Interest Rate has been collected from published records of IMF data, World Development Indicators, Bank Of International Settlement database, World Investment Report 2017, OECD database and so on.

Period of the study

The study covers a period of 14 years from 2003 to 2016. Even though data availability constitutes the rationale for the selection of the study period, the practical possibility to cover different phases of an economic cycle are also been considered for the selection of the period.

Analysing tools

The empirical methodology used in the study mainly comprises of an econometric panel framework. In ultimate, the study propose to analyse the short run causality running from macroeconomic variables to FDI growth in emerging world. Accordingly a panel regression framework under fixed effect model has been used for data analysis.

❖ CAGR- Compounded Annual Growth Rate

This is used to analyse the compounded annual growth rate of FDI inflows and the GDP during the study period of 2003 to 2016. The annual growth of the various macro-economic indicators are also computed.

CAGR $(t_{o,} t_{n)}$ = V (t_n)/V (t_o)/1/ $(t_n\text{-}t_o)$-1

Where: $t_n\text{-}t_o$: Number of years

V (t_0): Start value

V (t_n): Finish value

❖ Panel Regression:

Panel (data) analysis is a statistical method, widely used in social science, epidemiology, and econometrics, which deals with two and “n”-dimensional (in and by the - cross sectional/ times series time) panel data. The data are usually collected over time and over the same individual units and then a regression is run over these two dimensions. Multidimensional analysis is an econometric method in which data are collected over more than two dimensions (typically, time, individuals, and some third dimension).

A common panel data regression model looks like $y_{it} = a + bx_{it} + \epsilon_{it}$, where y is the dependent variable and xy is an independent

variable. *a* and *b* are coefficients, *i* and *t* are indices for individuals and time. The error ϵ_{it} is very important in this analysis. Assumptions about the error term determine whether we speak of fixed effects or random effects. In a fixed effects model, ϵ_{it} is assumed to vary non-stochastically over i or t making the fixed effects model analogous to a dummy variable model in one dimension. In a random effects model, ϵ_{it} is assumed to vary stochastically over i or t requiring special treatment of the error variance matrix.

Data Analysis and Interpretation

- Compound Annual Growth Rate (CAGR): Emerging Economies

Table 1: CAGR of FDI during the period 2003-2016

Year	FDI Inflows	M&As	Greenfield
2004	0.0291	0.0249	-0.0436
2005	0.0150	0.0542	0.0205
2006	0.0049	-0.0005	0.0178
2007	0.0200	0.0166	0.0354
2008	0.0146	0.0433	-0.0154
2009	-0.0228	-0.0704	-0.0041
2010	0.0271	0.0151	-0.0074
2011	0.0069	0.0547	0.0074
2012	-0.0015	-0.0664	-0.0221
2013	-0.0006	0.0671	0.0091
2014	0.0027	0.0277	-0.0040
2015	-0.0064	-0.0601	0.0051
2016	-0.0035	-0.0102	0.0065

Source: Compiled from WDI and World Investment Reports

Table 2: CAGR of macro-economic indicators during the period 2003-2016

Year	Percapita Income	Real Interest Rate	Real Exchange Rate	Forex Reserves	Balance of Payment
2004	0.0118	-0.0228	0.0004	0.0216	0.0291
2005	0.0092	0.0082	0.0037	0.0139	0.0299
2006	0.0087	-0.0087	0.0025	0.0176	0.0364
2007	0.0115	0.0081	0.0026	0.0258	0.0214
2008	0.0062	-0.0113	-0.0008	0.0100	-0.0277
2009	-0.0070	0.0212	-0.0020	0.0156	0.0059
2010	0.0090	-0.0496	0.0051	0.0124	-0.0180
2011	0.0068	0.0171	0.0000	0.0082	-0.0404
2012	-0.0012	0.0179	0.0003	0.0035	-0.0086
2013	0.0021	-0.0004	0.0003	0.0065	0.0334
2014	0.0009	-0.0074	-0.0013	0.0007	0.0090
2015	-0.0084	0.0101	0.0002	-0.0072	0.0612
2016	-0.0004	0.0066	-0.0021	-0.0034	-0.0069

Source: Compiled from WDI and World Investment Reports

Interpretation:

On observing CAGR of FDI and economic indicators in emerging economies in table 1 – it is noticed that FDI flows were much positive until the recession hit year of 2008.Some recoveries were observed in the next few years. However the growth rate is significantly negative during the rest of the years.

In the case of mergers and acquisitions CAGR are often negative in most years of study period. Since Greenfield is the main source of investment in emerging world the growth rate in greenfield investment is almost at par with FDI inflows.

While considering the macro-economic conditions in table 2 Balance of Payment (BOP) and Forex Reserves of emerging economies are significantly improved except some decline in BOP during the recession hit years. Most of the years, CAGR of exchange rate, interest rate and per-capita income are found positive. From the above facts, we can say that significant macro-economic development were occurred in emerging economies during the study period.

- *Panel Regression*

From the results reported in Table 3, it is quite evident that FDI has significant persisting impact on economic growth of emerging world. The regression coefficient explaining the variance of GDP by the variance of FDI inflows are

Table 3: Foreign Direct Investments and Economic Growth of Emerging Economies: Panel Regression Results

Endogenous Variable	Exogenous variables	Coefficient	Std. Error	t-ratio	p-value		R^2
Emerging Market GDP	Constant	1636.99	1226.98	1.3342	0.18353		
	Greenfield FDI	0.908801	0.0421104	21.5814	<0.00001	***	0.696
	Constant	8355.72	1449.78	5.7634	<0.00001	***	0.329
	M&As	3.22137	0.238694	13.4958	<0.00001	***	
	Constant	3.44387	0.217832	15.8098	<0.00001	***	0.482
	FDI Inflows	4496.15	700.97	6.4142	<0.00001	***	

***significant at one per cent level

statistically significant in all the three regression models framed for the purpose. An important observation to be made here is that the Greenfield FDI has the strongest influence on GDP growth in emerging market context. It explains almost 70 per cent variations in economic growth of the country group. However, the impact of M & As on economic growth of emerging world is relatively low despite the coefficient explaining the variation or influence is statistically significant at one per cent level. The analysis also reveals the FDI induced economic growth of emerging markets in terms of total FDI flows also were explained variance is found at almost 50 per cent.

GDP, interest rate, foreign exchange reserves and BOP position are the strongest determinants of FDI inflows into emerging markets (Table 4). These four factors together contribute over 80 percent of the variations in FDI inflows to these economies. All these factors are positively correlated to the FDI inflows of the countries. Investors from global markets prefer to be safe with their investments, hence they select only those economies with strong growth potentials to invest their funds. Accordingly only those countries with larger GDP growth are able to get direct capital from the capital rich economies which could be the possible reason for the positive relations between GDP and FDI flows. Larger interest rate in the domestic market means increased cost of capital to finance assets that normally compel the domestic firms to find overseas markets as a source for their capital requirements. Consolidated foreign exchange reserves and surplus in BOP position are the true reflections of the economic stability of economies and the Foreign Direct investors who park their funds on a long term perspective in emerging markets definitely consider these two parameters in making their investment decisions in emerging markets. Other parameters, per capita and exchange rates are found to be insignificant in influencing the FDI inflows in general to these newly industrializing economies like China and India. However, the exchange rate is significant in determining the FDI flows at component levels. Moreover, GDP is found insignificant determinant of FDI in M & As mode.

Major Findings

1. The prime source of FDI to emerging markets are in Greenfield mode. In fact, the emerging

Table 4: Macroeconomic Performance and FDI Inflows to Emerging Economies: Panel Regression Results

Endogenous Variable	Exogenous variables	Coefficient	Std. Error	t-ratio	p-value		R^2
Greenfield FDI	Constant	23561.7	9351.98	2.5194	0.01248	**	0.620
	GDP growth	2340.85	446.608	5.2414	<0.00001	***	
	Per capita	-0.109154	0.198919	-0.5487	0.58376		
	Interest rate	49.0271	123.287	0.3977	0.69127		
	Exchange rate	-216.712	102.363	-2.1171	0.03540	**	
	Forex reserves	24.4593	2.96709	8.2436	<0.00001	***	
	BOP	-24.5847	287.772	-0.0854	0.93200		
M&As	Constant	6367.14	2502.24	2.5446	0.01164	**	0.516
	GDP growth	24.3516	119.496	0.2038	0.83871		
	Per capita	0.048382	0.053223	0.9090	0.36434		
	Interest rate	47.7737	32.9869	1.4483	0.14900		
	Exchange rate	-61.0302	27.3886	-2.2283	0.02690	**	
	Forex reserves	85.2292	7.9388	10.7358	<0.00001	***	
	BOP	-30.0507	7.6997	-3.9028	0.00013	***	
FDI(net)	Constant	10742	7429.01	1.4460	0.14964		0.808
	GDP growth	1007.27	354.776	2.8392	0.00496	***	
	Per capita	0.111069	0.158017	0.7029	0.48288		
	Interest rate	588.204	97.9365	6.0060	<0.00001	***	
	Exchange rate	-109.759	81.3152	-1.3498	0.17850		
	Forex reserves	40.7299	2.35699	17.2805	<0.00001	***	
	BOP	-5.59155	2.2862	-2.4460	0.01525	**	

*significant at ten per cent level
**significant at five per cent level
***significant at one per cent level

economies get Greenfield capital which is almost equal to their FDI net flows during the period. Such FDI pattern in emerging world is quite opposite to what they actually requires.

2. GDP of emerging markets are significantly influenced by the FDI inflows there. The observation is true with regard to all types of FDI modes considered. About 70 per cent of the economic growth in emerging markets is affected by their Greenfield FDI receipts.

3. GDP, interest rate, foreign exchange reserves and BOP position are the strongest determinants of FDI inflows into emerging markets which, together contribute over 80 percent of the variations in FDI inflows to these economies. Moreover, all these factors are positively correlated to the FDI inflows of the countries. Other parameters, per capita and exchange rates are found to be insignificant in influencing the FDI inflows in general to these newly industrializing economies like China and India. However, the exchange rate is significant in determining the FDI flows at component levels and GDP is irrelevant in determining the level of FDI in M & As mode.

Suggestions

Based on the findings, the study suggests the following measures to improve the FDI dynamism in emerging economies.

1. Emerging economies should make measures to encourage M & A mode of FDI. This will enhance the competitiveness of domestic firms with their foreign partnership.

2. More incentives should be offered in the form of tax holidays, duty drawbacks and other supportive measures to enhance the inflow of FDI to economies.

3. Stability in economic policies are highly essential to attract more amount of FDI to emerging economies in consistent mode.

Conclusion

This study examined the causal relations between FDI inflows and economic growth in emerging economies under a panel regression framework. The study found bidirectional causality between FDI and economic growth in emerging market settings. The emerging markets are receiving more FDI capital in Greenfield mode. However, for the efficient performance of their economies emerging markets need more Mergers and Acquisitions. The regulators and policy makers of these markets should design proper policy measures to attract more amount of foreign capital to gain more growth and development in their economies.

Limitation

The source data for the study was limited to 17 emerging economies and for a short span of 14 years. Data availability of time series at regular intervals poses problems to a great extent in making meaningful analysis and inferences. No sophisticated econometric tools of analysis has been adopted, which affects the quality of the result generated through the study.

If the study been extended to incorporate transition economies the validity and scope of study could have been enhanced.

References

1. Borenszteina, J. De Gregoriob, & Leec, JW. How does foreign direct investment affect economic growth?. Journal of International Economics 1997;45:115–35.
2. Baby Sharma. Determinants of Foreign Direct Investment In flows in India. International Journal of Applied Business and Economic Research. 2016;139-48.
3. Saw Imm Songa, Chiok Choo Kueh B, Rashidah Abdul Rahmanc & Ei Yet Chu. Performance of Cross–border Mergers and Acquisitions in Five East Asian Countries. International Journal of Economics and Management 2010;4(1):61–80.
4. Singh Kaur, & Sandhu. Capital Inflows In India: Composition And Determinants. Apeejay Journal of Management and Technology 2014;July 9(2) :36-45.
5. Calderon, Loayza & Serven. Greenfield foreign direct investment and mergers and acquisitions. Policy research working papers; 2004.p.3192.
6. Sahoo. Foreign Direct Investment in South Asia: Policy, Trends, Impact and Determinants.*ADB* Institute 2006. Discussion Paper No. 56
7. Sobir Mansoor & Smutka Lubos. Determinants of Foreign Direct Investments in Transition Economies: Case of Commonwealth of Independent Countries, Acta Universitatis Agriculturaeet Silviculturae Mendelianae Brunensis, 2016;64(5):1749–62.
8. Singh J. Economic Reforms and Foreign Direct Investment in India: Policy, Trends and Patterns. *The* IUP Journal of Financial Economics, 2010;8(4):59-69
9. Nocke V. & Yeaple S. An Assignment Theory of

Foreign Direct Investment. BER Working Paper No. 110063, National Bureau of Economic Research, Cambridge. 2004.

10. Khondoker Abdul Mottaleba Kaliappa Kalirajan. Determinants of Foreign Direct Investment in Developing Countries: A Comparative Analysis. ASARC. 2010. Working Paper 2010/13.
11. Naveen Sood. Significance of FDI and FII for the economic growth of India: Statistical analysis 2001-2015. International Journal of Applied Research 2015;1(13):570-74.
12. Yuko Kinoshita & Nauro F. Campos. Why Does FDI Go Where it Goes? New Evidence From the Transition Economies. IMF. 2003. Working Papers, 03, 228, (1-31).
13. Olgica Nestorović. Are Foreign Direct Investment Contribution To The Economic Growth Of Transition?. Economic Themes 2014;53(2):267-77.
14. Shiva S. Makki, & Agapi Somwaru. Impact of Foreign Direct Investment and Trade on Economic Growth: Evidence from Developing Countries. American Journal of Agricultural Economics 2004;86(3):795-801.
15. Vijayakumar Narayana Murthy, Sridharan Perumal Rao, Kode Chandra Sekhara. Determinants of FDI in BRICS Countries: A panel analysis. International Journal of Business Science & Applied Management 2010;5(3):1-13.
16. Yeaple S.R. The Complex Integration Strategies of Multinationals and Cross Country Dependencies in the Structure of Foreign Direct Investment. Journal of International Economics 2003;60:293-314.
17. Pradhan J.P. The determinants of outward foreign direct investment: a firm level analysis of Indian manufacturing. Oxford Development Studies. 2004;34(4):619-39.
18. Desai A.M., C.F. Foley & R.H. Jr. James. Foreign Direct Investment and Economic Activity, NBER. 2005. Working Paper No. 11717, National Bureau of Economic Research, Cambridge.
19. Lim E.G. Determinants of, and the Relation between Foreign Direct Investment and Growth: A Summary of Recent Literature, IMF. 2001. working paper no. 01/175.
20. Balasubramanyam V.N. & V. Mahambre. FDI in India. 2003. Working Paper No.2003/001, Department of Economics, Lancaster University Management School, International Business Research Group.
21. Azeem Ahmad Khan. FDI Flows in Developing Countries: An Empirical Study Global Journal of Finance and Management 2014;6(1):27-34.
22. Nair-Reichert U., & D. Weinhold. Causality Tests for Cross-Country Panels: A New Look at FDI and Economic Growth in Developing Countries. Oxford Bulletin of Economics and Statistics, 2001;63 (2):153-71.
23. Abhishek Vijay kumar Vyas. An Analytical Study Of FDI In India (2000 – 2015). International Journal of Scientific and Research Publications 2015;5(10):1-30.
24. Frederic Teulon Khaled Guesmi. Determinants Of Foreign Direct Investments In The South Asian Association For Regional Cooperation. Journal of Applied Business Research 2013;29(6).
25. Shiba Shankar Pattayat. Examining the determinants of FDI inflows in India. Theoretical and Applied Economics 2016;23(2):225-38.
26. Choe Jong Il. Do Foreign Direct Investment and Gross Domestic Investment Promote Economic Growth?, Review of Development Economics 2003;7(1):44-57.