"Determinants of FDI Inflows in Asian Developing Nations – An Empirical Analysis"

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DECLARATION

I, **Mr. RAGAPPAGOL P. SHIVRAJ**, hereby declare that the dissertation titled **"Determinants of FDI Inflows in Asian Developing Nations – An Empirical Analysis"** is an original and independent research work carried out during the period of 2020 – 2021 under the supervision and guidance of **Dr. B. Ramesh, Professor (M.com), Goa Business School, Goa University** and to the best of my knowledge this work has not previously formed the basis for the award of any degree, diploma, associateship, fellowship, or similar other title or any candidate in Goa University or any University. The references made to the previous work have been stated clearly and duly acknowledged in the references of the list.

Date: 30/06/2021

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CERTIFICATE

This is to certify that the dissertation entitled ""**Determinants of FDI Inflows in Asian Developing Nations – An Empirical Analysis"** is a bonafide record of the research work done by **Mr. Ragappagol P. Shivraj** during the period of study under my guidance and that to the best of my knowledge this study has not been formed the basis for the award of any degree, diploma, associateship, fellowship or similar title to any candidate in Goa University or any other university and also that the dissertation represents independent work on the part of the candidate.

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"Determinants of FDI Inflows in Asian Developing Nations – An Empirical Analysis"

Abstract

The increasing importance of Foreign Direct Investment (FDI) in the last few decades have witnessed an extensive growth to developing nations. This is due to the efforts of countries to attract foreign investment and an increase in competition amongst the developing nations to attract the FDI, resulting in higher incentives offered by the host government and free from restrictions on operations of foreign companies in their nation. This research has been conducted to analyse the determinants of FDI Inflows of Asian Developing Nations – An Empirical Analysis.

The study reflects the trend of FDI Inflows and Outflows of Asian Developing Nations such as Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea Republic, Malaysia, Pakistan, and Singapore which also examines the factors which influences the behaviour of FDI inflows and outflows within the country. This study uses secondary data i.e. time series data for 10 developing nations over a period of 29 years i.e. 1990 to 2019 and panel data for 19 years i.e. 2000 to 2019 to study the factors influencing FDI inflows respectively. The Panel data modelling developed models i.e. Fixed Effect model, Random Effect Model, Pooled Ordinary Least Square, Driscoll-Kraay and the models also used Hausman Test to test the hypothesis and draw the conclusions. The macroeconomic factors included are GDP growth rate, Inflation, Institutional Quality, Financial Development Index, Capital openness, General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness, Commodity prices, Liquidity, Global Growth Rate. And the Global factors included are Global Returns S&P 500 Index and Global Volatility Index.

The study reveals that FDI inflows and outflows of Asian developing nations show a bullish as well as bearish trend, the pre-recession period before 2007 has bought some positive returns to the developing nations with few ups and downs in between. During post-recession in the year 2008 found that inflows were falling dramatically due to the Global Economic Crises U.S. based recession, but overall were positive.

The study found that GDP growth rate, Inflation, Institutional Quality, Capital openness, , Commodity prices, Liquidity, Global Growth Rate, Global Returns S&P 500 Index and Global Volatility Index have a positive impact on FDI inflows whereas General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness have negative impact on FDI inflows of Asian developing nations. And also found that macroeconomic factors play a significant and decisive to pull foreign direct investment in the regions and in each Asian country as well.

Keywords: Foreign Direct Investment, FDI Inflow, Developing Nations, Panel Data Model.

Chapter 1: Introduction

1.1 Introduction

Generally, developed nations have ruled both foreign direct investment (FDI) inflows and outflows. Since the mid1990s, globalization has fundamentally expanded the overall significance of FDI inflows into non-industrial nations. While overall FDI inflows diminished from 2015 to 2018, FDI inflows into non-industrial nations has remained moderately steady (UNCTAD 2019). This is steady with perceived patterns in the course of recent years during which centre pay and low-pay nations have gradually represented an expanding extent of FDI inflows. The expected advantages of FDI streams into non-industrial nations may incorporate higher financial development and advancement coming about because of extra capital assets, move of innovation, enterprising abilities, and the preparation of their workforce. Notwithstanding, the acknowledgment of these potential advantages stays a subject of debate. The significance of FDI in the global economy has enormously expanded since the 1980s. Privatization and progression in the area of service, like broadcast communications, transportation, and public utilities, have animated greater venture openings. The expanding significance of FDI in the worldwide economy mirrors the endeavours of nations to pull in unfamiliar speculation. To energize unfamiliar speculation, agricultural nations give an assortment of financial motivators to unfamiliar financial backers, like brief expense exceptions, venture sponsorships, and obligation free imports of capital products. Agricultural nations have a higher probability of accepting net capital inflows.

The motivation behind this paper is to look at observing the determinants of FDI inflows for an Asian developing nations. A pooled Ordinary Least Squares, Fixed Effect, Random Effect, Driscoll Kraay Model is used to investigate the determinants of FDI inflows for ten Asian developing nations. The information comprises of Bangladesh, Cambodia, China, India, Indonesia,

Japan, Korea Republic, Malaysia, Pakistan and Singapore covering from 1990-2019. Besides, a Hausman test is also utilized to test and draw conclusion.

Global company's i.e. Multinational corporations (MNCs) increment the degree of world pay by redistributing assets between nations. MNCs work as an answer for the absence of public reserve funds many agricultural nations experience. MNCs are important wellsprings of unfamiliar money because of their strength and life span in the host country. FDI has shown "the most flexibility to monetary and monetary emergencies" (UNCTAD 2018). This strength is confirmed by the vigorously upheld thought that FDI has been the steadiest segment of the equilibrium of instalments in the course of recent years. Because of the dispersion of innovation and inflow of capital, FDI starting from MNCs gives numerous advantages, remembering increments for charge income, trades, item accessibility, human resources, business/work creation, and diminishes underway expenses.

The greater part of the high level nations of today have created because of (FDI), which assumed an essential part in making them major league salary nations. Globalization has opened the entryways practically everywhere on the globe for using worldwide monetary streams. Agricultural nations are beneficiaries of assets from the global market for their turn of events. FDI has become a significant motor in the worldwide development of the economies. FDI includes acquisitions mergers and so on, fabricating new offices, reinvesting benefits procured from abroad activities and intracompany advances. FDI is viewed as an intend to enhance home grown venture for accomplishing a more significant level of financial development and technological advancement. FDI offers advantages to the home grown business just as to the customer by giving freedoms to innovative up gradation, admittance to worldwide administrative abilities and

practices, ideal use of human and common assets, making industry globally serious, opening up international market and giving admittance to worldwide quality labour and production.

It is a key truth that capital and speculation are the primary mainstays of financial advancement of each country. Due to lack of manufacturing and technological advancement developing nations are lacking behind. Capital is treated as the driving force of monetary development of nation. In past, the varied sources of capital for developing countries were in demand of material by industrialized countries or aid or loans from foreign banks. In recent years, besides different sources, FDI (Foreign Direct Investment) as a supply of funds has gained terribly high importance.

FDI could be a direct investment into production or business during a country, by an organization in another company, either by shopping for an organization within the target country or by increasing operations of a gift business therein country. FDI is in distinction to portfolio investment that could be a passive investment in securities of another country like stocks and bonds. They embrace technology, management skills, channels for promoting product internationally, product style, quality characteristics, brand names, etc. In theoretical and empirical work, investment has been identified as a key variable decisive economic process. Panel data modelling is used to find out the determinants of FDI inflows.

1.2Foreign Direct Investment (FDI) – Theoretical Background

A foreign direct investment (FDI) is a degree of investment created by a firm or individual in one country into business interests placed in another country. Generally, FDI takes place when an investors places foreign business operations or acquires foreign business assets in an exceedingly foreign company. However, FDIs distinguished from portfolio investments made in the foreign companies for buying equities of foreign-based.

Foreign direct investment is important for developing economies and rising markets wherever firms would like funding and experience to expand their international sales. Personal investment in infrastructure facilities, energy, and water may be an important driver of the economy as helps in increasing jobs and wage Examples of foreign direct investments include acquisitions, mergers, retail, logistics, services, and manufacturing etc.

1.2.1 How a foreign Direct Investment Works

Foreign direct investments normally created in open economies that provide a talented personnel i.e. skilled workforce and above-average growth prospects for the investors, as hostile tightly regulated economies. Foreign direct investment oft times involves over simply a capital investment. That shows the provisions of management or technology likewise. The key feature of foreign direct investment is that it establishes either effective management or control or a minimum substantial influence over the decision-making of a distant business.

1.3 Definition of FDI:

1.3.1 Foreign Direct Investment (FDI) as per UNCTAD:

Foreign direct investment (FDI) is outlined for investment involving a long-run relationship associate degree reflecting an enduring interest and management by a resident entity in one economy in an associate degree enterprise and economy apart from that of the foreign direct investors, FDI implies that the investors exerts a significant degree of influence on the management of the enterprise resident within the alternative economy. Such investment involves each of the initial dealings between the 2 entities and every one subsequent transactions between them and among foreign affiliates, each incorporated and unorganized .FDI could also be undertaken by people still as business entities. The main aim of the investor is to make an effectual voice in the management of the enterprise.

1.3.2 Types of FDI:

FDI is categorized into different types:

a) Horizontal FDI :

Horizontal FDI is wherever funds are invested with abroad within the same trade. In different words, a business invests during a foreign firm that produces similar merchandise. For example Apple, an American primarily based firm, might purchase a Micromax an Indian company primarily based firm. They're both a mobile phone company so would be classified as a sort of horizontal FDI.

b) Vertical FDI :

Vertical FDI is wherever associate degree investment is formed within the same supply chain. In other words, a business invests a foreign firm that it's going to provide or sell too. For instance, Hersheys, a United States of America chocolate manufacturer, could look to take a position in cocoa producers in Brazil. This can be called backwards vertical integration as a result of the firm is buying a supplier, or potential supplier, in the supply chain.

c) Conglomerate FDI :

Conglomerate FDI is wherever associate degree investment is formed during a fully totally different trade. In alternative words, it's not connected in any direct way to the investors business. For example, Walmart, a U.S. merchant, could invest in TATA, an Indian automobile manufacturer.

1.3.3 Benefits of Foreign Direct Investment

1. **Boost to International Trade:**

Foreign direct investment promotes international trade because it permits production to flow to components of the planet that square measure a lot of value effective. As an example, Apple was ready to conduct FDI into China to help with the producing of its product. However, several of the elements also are shipped in from elsewhere, usually from the region of Asia. As an example, the camera is created by Sony that sources its producing in Taiwan. There's additionally the case of the non-volatile storage that is sourced by Toshiba in Japan. We tend to even have the bit ID sensing element that is created in Taiwan, and also the chipsets and processors, that square measure created by Samsung in Republic of Korea and Taiwan. Both Samsung and Sony have conducted in the Taiwan, China and Japan. As a result, it's created new jobs within the region and boosted trade between the nations.

2. **Reduced Regional and international Tensions:**

As we know that the Apple example, a supply chain is formed between countries. In part, this can be created by the division of labour. As an example, Asian country might build the batteries, Taiwan the ID sensors, and Japan the cameras. As a result, they're all addicted to one another. If there's a revolt in Taiwan, the total method might fall aside. While not the ID sensors, the ultimate product can't be created, therefore the want for different elements is additionally reduced. This implies staff in Japan and Asian country also are affected. As a results of this interconnected supply chain, it's within the interest of all parties to confirm

the steadiness of its commerce partners. Thus FDI will produce a level of dependency between countries that successively will produce a level of peace. By famous phrase you don't bite the hand that feeds you. It means, if nations are dependent on one another for his or her financial gain, then the chance of war is additionally reduced.

3. **Sharing of Technology, Knowledge, skill and Culture:**

Foreign direct investment permits the transfer of technology, knowledge, and culture. For example, once a firm from the US invests in another from Asian country, it's a say in however the firm is run. It is in its interest to make sure the foremost economical use of its resources. By coming from a special cultural background and perspective, often, efficiencies is achieved. Moreover, there's the case of technology. It will transfer over during number of various ways. Secondly of all, the technology might be outright purchased from a remote nation. As an example, copyright technology might be oversubscribed from Company A within the US to Company B in Asian country. Finally, the technology might be reverse-engineered or give inspiration for domestic development.

4. **Diversification:**

From the company's perspective, foreign direct investment reduces risk through diversification. By investment in different nations, it spreads the businesses exposure. In different words, it's not therefore dependent on Country A. as an example, Target derives its entire revenues from the US. Should be an economic recession sure to hurt its profits. By diversifying and investment in foreign markets, it permits businesses to cut back domestic exposure. Therefore if a US firm invests in new stores in Germany, the amount of risk is reduced. This can be as a result of it's not dependent on one market. While there

could also be a decline in demand for one, there could also be growth in another. To use an analogy, it's just like putting a bet in roulette on each red and black.

5. **Tax Incentives:**

   Reduced levels of corporation tax will save huge businesses billions every and each year. This can be why huge corporations like Samsung use sophisticated techniques to off-shore cash in international subsidiaries. Countries with lower tax regimes are typically those who are favored. Examples embody Suisse, Monaco, and Ireland, among others. Furthermore, there are tax incentives by that the foreign government offers tax breaks to investors during a bid to encourage FDI.

1.3.4 THE MAIN CHARACTERISTIC OF FOREIGN DIRECT INVESTMENTS

1. Foreign direct investment or FDI is once a business receives investment from a foreign investors (individual or company). This foreign investors is based outside the country wherever the business is happening.
2. After globalization, India unfolded its economy to foreign investors in 1991. Since then, the govt. has taken many steps so as to encourage foreign investors to speculate within the country and so, increase FDI equity inflows.
3. Governments try to make accommodating with foreign investors by creating FDI polices and rules easier as a result of overseas direct investment plays a vital role in an economy. FDI could be an important driver of economic process. Its benefits, although, don't seem to be restricted here. FDI additionally brings in new technology, a lot of job opportunities, social control experience, and improved infrastructure.
4. India is nowadays one amongst the foremost enticing foreign direct investment destinations. Foreign investors are willing to speculate within the country due to comparatively cheaper wages, sponsored costs, and tax exemptions by the government.

5. This lasting interest is established once the foreign capitalist gets a minimum of ten per cent of the voting power within the company wherever the investment is being done. Once the part of management comes into play, the intent to participate within the business actively comes alive.
6. To distinguish foreign direct investment from foreign portfolio investment, a ten per cent stake in company's stock is critical.

1.3.5 Research questions:

Is FDI is good for every country?

Which factors attract FDI?

1.4 Significance of the study and need:

The relevancy of the study is to produce awareness among readers and authorities regarding the vital role of foreign direct investors (FDI) and GDP in the economy. Through technological advancement has become a worldwide, information is offered and customers are attentive for development within the world. Since independence in 1957, Gold Coast has attracted a lot of international issues. It's thus, relevant that the country puts into place some requisite policies which will offer native investors or entrepreneurs a customary likelihood for collaborating within the economic development of the country. Thus, the authorities currently can have a bigger responsibility to match these large foreign direct investments into the country, and this study are to seek out however best government can do this, with specific relevancy the FDI.

The examination of determinants factor will provide an important policy to its various Governments of Developing Nations to attract FDI.

Foreign capital if properly diverted and optimally utilized than can assist the development and growth of developing countries. Foreign capital helps boast the speed of economic growth by

facilitating imports required for development programs, to increase a country's export, transfer of technology, and higher production and increase investment in the economy of the country.

1.5 SCOPE OF THE STUDY:

The study will be limited to direct foreign investments forms of capital inflows and outflows of developing Asian countries. Data analysis will cover from 2000 to 2019. In order to study the factors influencing FDI inflows and outflows of developing nations, the study covers the period from 1990 to 2019 for 10 Asian developing nations in the world. The Variables influencing FDI Inflows shall include FDI inflows as Dependent Variable and GDP growth, trade openness, inflation, institutional Quality, Financial Development Index, Global Liquidity and Commodity prices, Capital Account Openness Index, General Government Final Consumption, Real Effective Exchange Rate, Liquidity, Global Growth, S&P 500 and volatility index.

1.6 Research gap:

Till today there are many studies have been conducted for FDI Inflows and Outflows of the developing nations, so it becomes very difficult to locate them and add all of them of t in the lists. Based on the literature review some gap which come across are:

Some of the literature which reviewed are not done in depth study and some research are only for limited period have been studied, period consisting five to ten or below fifteen years by taking very short period of sample of the developing nations.

Chapter 2: Review of Literature

2.1 Introduction

FDI is the main and most important and attractive topics among the researchers at an international level. Financial analyst and various economist have done study in the field of FDI. The review of some of the research analysis are presented which are important are as follows:

2.2 Literature Review

Alan A. Bevan and Saul Estrin (2000): The Determinants of Foreign Direct Investment in Transition Economies studied for the period 1991 to 1998 for Central and Eastern Europe using dummy variables and country risk, unit labor costs, host market size and gravity factors.The underlying dynamics of the method illustrate that will increase in FDI improve country credit ratings with a lag, thus increasing future FDI receipts. Consequently we propose that the accession progress has the potential to induce virtuous cycles for the frontrunners however might have serious consequences for the accession laggards.

Sobir Shukurov (2016): Determinants of FDI for developed and developing countries, examines the determinants of inward Foreign Direct Investment (FDI) flows within the CIS throughout 1995-2010. The results of empirical analysis exploitation panel knowledge models, conducted with the aim of distinguishing the factors that verify the motivation and call of transnational corporations (MNC) to speculate in CIS economies, show that despite the presence of high investment risk in transition economies, the selection of FDI location continually depends on a preliminary analysis of countries advantages and disadvantages.

André Martens (2008): Department of Economy in which there square measure various empirical studies that tried to verify the connection between trade and FDI within the case of rising countries.

Many of them supply completely different, usually conflicting, results. an outsized a part of these variations are often attributed to the theoretical underpinnings, the models' specification, the degree of disaggregation of trade and FDI flows, the selection and activity of the chosen variables, and also the effort that was created to check for relation. In this survey, I try and summarize in an exceedingly rather careful manner these empirical results derived from twenty one hand-picked studies printed between 1999 and 2007.

Quan V. Le Meenakshi Rishi (2012): Based on a panel knowledge analysis of 164 countries from 1996 to 2006, we tend to examine the impact of institutional quality on foreign direct investment (FDI) levels and volatility. We discover that smart institutional quality matters to FDI. We offer proof that institutional quality encompasses a positive and vital impact on FDI. A lot of specifically, we discover that one} variance modification in institutional quality improves FDI by an element of 1.69. Ceteris paribus, institutional quality is negatively associate in nursing and considerably related to FDI volatility which can have an adverse impact on economic process per Lensink and Morrisey (2006). Thus, our results recommend that if there square measure institutional determinants of FDI volatility and if such volatility is related to lower economic process.

Eswar S. Prasad,Kenneth Rogoff, Shang-Jin Wei, and M.Ayhan Kose (2008): This paper was made by Eswar S. Prasad, Kenneth Rogoff, Shang-Jin Wei dynasty, and M. Ayhan Kose at the International money, extra contributions came from Eduardo Borensztein, Robin Brooks, R. Gaston Gelos, Baron Olivier of Birghton Jeanne, Paolo Mauro, and Marco Terrones. The paper has conjointly benefited from helpful comments and suggestions from Tamim Bayoumi, Andrew Berg, Peter Clark, Hali artificer, Aasim Husain, Baron Olivier of Birghton Jeanne, Manmohan Kumar, Gian Maria Milesi-Ferretti, Ashoka Mody, James Morsink, Carmen Reinhart, David J.

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Krzysztof Wach, Liwiusz Wojciechowski (2016): The purpose of this text is to elucidate that factors area unit necessary determinants for allocating FDI within the cluster countries (the European nation, Hungary, Poland, Slovakia) by investors from the "old" EU member states. The article is split into 3 main sections, aside from the introduction and therefore the final conclusions. First, we have a tendency to discuss the literature on the determinants of FDI. In Section a pair of we have a tendency to introduce the applied analysis methodology. Finally in (Section 3), we have a tendency to gift and dis- cuss the empirical results. we have a tendency to hand-picked thirteen variables that were utilized in the estimation of the panel models, they embrace core gravity model variables like the economy size (home and host nominal value per capita), geographical distance additionally as argument gravity model variables like access to the ocean and/or a standard border. We have a tendency to additionally hand-picked 5 efficiency-seeking variables (labour productivity, earnings, company rate, and capitalist protection index)

Mark P. Taylor (1999): Using most probability Kalman filtering techniques and non-parametric variance ratio statistics, we tend to gauge the relative importance of permanent and temporary parts of capital flows to Spanish American and Asian developing countries over the amount1988–1997, for the broad classes of flows within the capital account. We discover comparatively low permanent parts in EF, BF and OF, while commercial BC flows seem to contain quite massive

permanent parts and FDI flows area unit virtually entirely permanent. These results have a natural interpretation and clear policy implications.

Blonigen, Bruce A Wang, Miao (2004): This paper examines the question of whether or not less-developed countries' (experiences with foreign direct investment (FDI) consistently totally different from those of developed countries. we have a tendency to try this by examining 3 styles of empirical FDI studies that generally don't distinguish between LDCs and DCs in their analysis. First, we discover that the underlying factors that confirm the placement of FDI activity across countries vary consistently across LDCs and DCs in a very manner that's not captured by current empirical models of FDI. Second, the impact of FDI on economic process is one that's solely supported for LDCs within the mixture knowledge, not DCs. Third, the proof suggests that FDI is far less probably to force out.

Nunnenkamp, Peter (2001): Since recent monetary crises in Asia and geographical region, developing countries have been strongly suggested to swear totally on foreign direct investment (FDI) so as to push economic development on a property basis. Even harsh critics of rash capital account liberalization argue in favour of gap up towards FDI. Yet, economists understand astonishingly very little regarding the driving forces and also the economic effects of FDI.

Rahim M. Quazi (2014): This study analyses the impact of corruption on FDI inflows in East Asia and South Asia – 2 regions that have recently received Brobdingnagian FDI inflows. Exploitation GLS methodology with 1995-2011 panel knowledge, this study finds that the impact of corruption on FDI is considerably negative and strong, that validates the “grabbing hand” hypothesis. It’s additionally found that, even once accounting for the economic fundamentals, East Asia appears to relish a locational advantage in attracting FDI vis-à-vis South Asia. These results

additional our information of the FDI dynamics, that policymakers ought to notice useful in fashioning pro-FDI methods.

Gobinda Goswami GourHaider, Samail (2014): In today's more and more globalized world, foreign direct investment (FDI) could be a hotbed for discussion. Varied studies are undertaken concerning FDI, its determinants and edges, however only a few works give importance to the impact of political risk on the influx of FDI. Some papers introduce institutional or governance problems in determinative FDI influx, however a comprehensive framework during this respect is non-existent. With this, the authors take 146 countries worldwide over an amount of 1984-2009 so classify countries as OECD or non-OECD members to check whether or not there's any distinction within the nature of the impact. The study keeps different potential determinants of FDI – market size, rate of real GDP, trade openness, infrastructural facilities as management variables whereas considering the impact of underlying political risk factors in deterring the FDI. Design/methodology/approach – This paper looks at the effect of political risk on FDI by using a systematic approach of factor analysis, in reducing the number of variables into their underlying factors and then generating factor score.

Supriya Chopra and Satvinder Kaur (2014): FDI and trade are typically seen as vital catalysts for economic process within the developing countries. FDI is a crucial vehicle for technology transfer from developed countries to developing countries. Since 1991 the govt. has centred on relief of policies to welcome foreign direct investments. Asian nation's economic reforms approach back in 1991 has generated robust interest in foreign investors and turning India into one in every of the favourite destinations for world FDI flows. The FDI inflows grow at concerning twenty times since the gap of the economy to foreign investment. Further, the explosive growth of FDI provides opportunities to Indian business for technological up- gradation, gaining access to

world social control skills and practices, optimizing utilization of human and natural resources and competitive internationally with higher potency. These investments are a key driver for fast the economic process through employment generation, and improved access to social control experience, world capital, product markets and distribution network. FDI in Asian nation has enabled to realize a particular degree of monetary stability; growth and development to sustain and view within the world economy

ZAHIR SHAH and QAZI MASOOD AHMED (2003): The dynamical modes of international transactions and also the cross-border mobilization of issue resources, in pursuance of international production, represent new dimensions for sustained economic process. Foreign Direct Investment (an influential component of this process) is outlined because the supply of acquisition of management} control by a mercantilism of a far off country over an endeavor during a host country.

Amal, MohamedThiago Tomio, BrunoRaboch, Henrique (2010): This paper aims at examining the determinants of FDI in geographical region, with special stress to the role of economic and institutional variables on the investment call of transnational corporations (MNCs) within the region. Previous empirical studies on the determinants of FDI to less developed countries have stressed the role of economic setting and relaxation policies within the host country to draw in foreign investment. Many studies are developed to look at the determinants of FDI in Latin America, victimization completely different political economy ways. Most of them have stressed the impacts of political economy variables on the FDI inflows within the region. The aim of the paper is to handle the economic and institutional determinants of FDI in geographical region (LA). Employing a panel knowledge model, covering the amount of 1996-2008 and eight countries

political economy stability, trade openness and institutional changes have an effect on the FDI inflows within the region.

Bano, SayeedaTabbada, Jose (2015): Foreign Direct Investment originating from East, Southeast, and South Asian developing countries has exaggerated considerably since 1980. This paper examines the extent and determinants of Foreign Direct Investment outflows from these countries between 1980 and 2011. We have a tendency to use elite home country-specific economics variables and identifies the key determinants of Foreign Direct Investment outflows victimization correlation and multivariate analysis. The results show that Foreign Direct Investment outflows square measure closely related to high levels of Gross Domestic Product, high domestic savings, giant foreign reserves, export orientation, and comparatively giant Foreign Direct Investment inflows within the supply countries, with the strength and importance of every issue varied with the amount of development.

Elif Arbatli (2011): This paper investigates the determinants of FDI inflows to rising market economies, concentrating on the consequences of economic policies. The empirical analysis additionally addresses the role of external push factors and of political stability employing a domestic conflict events information. The results recommend that lowering company tax rates and trade tariffs, adopting fastened or managed rate policies and eliminating FDI connected capital controls have vie a crucial role. Domestic conflict events and political instability area unit found to own important negative effects on FDI that highlights the role of inclusive policies to push growth and avoid unexpected stops of FDI inflows.

Soumia, ZenasniAbderrezzak, Benhabib (2013): The purpose of this paper is to check the determinants of foreign direct investment (FDI) and through empirical observation examine their

effects on the expansion of the Arab Mahgrib Union (AMU) countries. This relationship has mostly been analyzed within the economic literature. The results area unit mixed, a number of the theoretical and empirical studies have shown that there's no positive relationship between FDI and economic process, whereas others have found that FDI have an effect on completely and considerably the long- run economic process. Indeed, AMU countries have developed in recent years, a policy aimed toward promoting the event of their economy.

Dygas, Robert (2020): This article issues the determinants of foreign direct investment (FDI) outflow from Bharat to Republic of Poland with some insights to alternative European countries. This subject powerfully relates to economic process of foreign trade and particularly new economic initiatives between Common Market (EU) and Bharat that was one in all the primary countries to develop trade relations with EU.

Onyeiwu, Steve Shrestha, Hemanta (2004): Despite economic and institutional reform in continent throughout the past decade, the flow of Foreign Direct Investment (FDI) to the region continues to be unsatisfying and uneven. during this study we have a tendency to use the mounted and random effects models to explore whether or not the artificial determinants of FDI have an effect on FDI flows to continent in standard ways that supported a panel dataset for twenty nine African countries over the amount 1975 to 1999, the paper identifies the subsequent factors as important for FDI flows to Africa: economic process, inflation, openness of the economy, international reserves, and resource accessibility. Contrary to traditional knowledge, political rights and infrastructures were found to be unimportant for FDI flows to continent.

Banga, Rashmi Working (2003): Analysis is initial undertaken for mixture FDI inflows to fifteen developing countries of South, East and South East Asia for the amount 1980-81 to 1999-2000.

Separate analyses are then undertaken for FDI from developed and developing countries. The results supported random effects model show that business enterprise incentives don't have any important impact on mixture FDI, however removal of restrictions attracts mixture FDI. However, FDI from developed and developing countries are drawn to totally different selective policies. Whereas, lowering of restrictions attract FDI from developed countries, business enterprise incentives and lower tariffs attract FDI from developing countries.

Khayroollo Sattarov (2012): (FDI) is one of the fundamental wellsprings of capital inflows and driving elements of financial development in numerous nations. Especially, non-industrial nations, arising economies and nations on the move have come progressively to consider FDI to be a significant factor of their monetary turn of events. This paper researches the determinants of FDI in two Focal Asian nations: Kazakhstan and Uzbekistan. The paper utilizes the informational indexes from 1996 to 2010 and applies two distinctive econometric strategies, a conventional least squares (OLS) and apparently inconsequential relapses (SUR) systems to examine the variables that impact FDI inflows in chose nations. The picked exact models depend on FDI speculations and past observational investigations regarding this matter. Because of accessibility of information, the paper primarily centers on area explicit components to examine FDI determinants. The outcomes demonstrate that market size, monetary soundness and dependability are critical components for FDI inflows in both, Kazakhstan and Uzbekistan. Moreover to those components, exchange transparency discovered to be vital factor for FDI inflows in Uzbekistan.

John C. Anyanwu (2011): Our assessment results from a board of seven five-year non-covering windows for the time frame 1980-2007 demonstrate that: (I) there is a positive connection between market size and FDI inflows; (ii) receptiveness to exchange decidedly affects FDI streams; (iii) higher monetary advancement has adverse consequences on FDI inflows; (iv) high government

utilization use draws in FDI inflows to Africa; (v) higher FDI goes where global settlements likewise goes in Africa; (vi) agglomeration emphatically affects FDI inflows to Africa; (vii) normal asset gift and abuse (particularly for oil) pulls in enormous FDI into Africa; (viii) East and Southern African sub-areas show up decidedly arranged to get more significant levels of internal FDI. The key strategy suggestions are examined.

Kayam, Saime Suna Economic (2009): (FDI) from agricultural nations and change economies have gotten somewhat recently. This examination inspects the nation of origin factors that decide the outward unfamiliar speculations from 65 creating and progress nations in the time frame 2000-2006. The primary speculation tried is that the little market size, exchange conditions, expenses of creation and neighborhood business conditions are the principle drivers of outward FDI. To look at the impacts of these elements, the fixed impacts assessment method is utilized utilizing factors that action pay, exchange, framework, work economic situations and monetary solidness. Intermediaries for the institutional climate like bureaucracy, debasement, and venture hazard are likewise used to reflect both the political and financial push factors on FDI. The primer discoveries uncover that outward FDI from agricultural nation's increments with unfamiliar rivalry in the homegrown market expanded by internal FDI. As government solidness, venture profile and organization quality in the nation of origin improves, surges of capital reductions. At the end of the day, non-industrial nation transnational organizations are shaped because of break reaction from the monetary and political conditions in the nations of origin.

Dr. Khondoker Abdul Mottaleb (2007): By overcoming any barrier between homegrown reserve funds and venture and bringing the most recent innovation and the executive's skill from created nations, unfamiliar direct speculation (FDI) can assume significant part in accomplishing fast

monetary development in the agricultural nations. The truth of the matter is that FDI for the most part streams towards the created nations and just a little bit of FDI streams to a predetermined number of agricultural nations. In this way, the majority of the agricultural countries nearly neglect to pull in an attractive measure of FDI. Utilizing board information from 60 low-pay and lower-center pay nations, this paper right off the bat distinguishes the persuasive elements that decide FDI inflow in the agricultural nations and furthermore experimentally exhibits the connection between financial development and FDI. It is discovered that nations with bigger Gross domestic product and high Gross domestic product development rate and keep up business cordial climate with bountiful current infrastructural offices, for example, web can effectively draw in FDI and FDI then again, altogether influence financial development of a country.

Reenu Kumari and Anil Kumar Sharma (2017): The motivation behind this paper is to distinguish key determinants of unfamiliar direct speculation (FDI) inflows in agricultural nations by utilizing lopsided board informational collection relating to the years 1990-2012. This examination thinks about 20 agricultural nations from the entire of South, East and South-East Asia. Plan/system/approach: Utilizing seven illustrative factors (market size, exchange receptiveness, framework, expansion, loan cost, innovative work and human resources), the creators have attempted to track down the best fit model from the two models considered (fixed impact model and arbitrary impact model) with the assistance of Hausman test. Discoveries: Fixed impact assessment shows that market size, exchange receptiveness, loan cost and human resources yield huge coefficients according to FDI inflow for the board of non-industrial nations under examination. The discoveries uncover that market size is the main determinant of FDI inflow. Examination limits/suggestions: Like some other investigation, this work likewise has a few limits. Absence of information on key determinants, for example, work cost, swapping scale, debasement,

and common assets, adequacy of law and order and political danger might be viewed as one such limit. Further, controlling for factors, for example, conversion scale, debasement, work cost and political danger could make huge enhancements to this examination. Down to earth suggestions: This investigation has huge ramifications for strategy creators, troughs and financial backers. Strategy producers would have the option to comprehend the significance of the significant determinants of FDI referenced in the paper, and find ways to define approaches that empower FDI. Such measures could incorporate creating market size, making guidelines more global exchange well-disposed and contributing the country's human resources. Further, steps could be taken to monitor loan fees and expansion rates as these elements have been found to impact FDI. Innovation/esteem: The example of 20 non-industrial countries picked for this investigation has not been considered by any examination before. This is a one of a kind commitment to existing assemblage of examination, and features the innovation worth of this paper.

Erfani, G Rod (2020): The expanding significance of unfamiliar direct venture (FDI) in the worldwide economy shows the endeavors of nations to draw in unfamiliar speculation. The motivation behind this paper is to inspect exactly the determinants of internal FDI for a board of Asian nations. A pooled standard least squares (OLS), semi-log fixed-impacts (FE) relapse model is used to dissect the determinants of FDI in an example of six Asian nations. The fair board information comprises of India, Singapore, China, South Korea, Turkey, and Malaysia from 1995-2013. The reliant variable is FDI net inflows. The informative factors incorporate vote based system, swelling, human resources, monetary development, homegrown speculation, exchange transparency, and monetary turn of events. The fixed impacts relapse results show all factors with special case of the monetary advancement variable are genuinely huge and have the normal sign.

Trends outlook Asia the, Investment Trade investment, Pacific Asia-pacific (2020): The Financial and Social Commission for Asia and the Pacific (ESCAP) fills in as the Assembled Countries' provincial center elevating collaboration among nations to accomplish comprehensive and supportable turn of events. The biggest provincial intergovernmental stage with 53 Part States and 9 Partner Individuals, ESCAP has arisen as a solid territorial research organization offering nations sound logical items that shed understanding into the advancing financial, social and natural elements of the locale. The Commission's essential spotlight is to follow through on the 2030 Plan for Manageable Turn of events, which it does by supporting and extending provincial participation and combination to propel availability, monetary collaboration and market incorporation. ESCAP's examination and investigation combined with its approach warning administrations, limit building and specialized help to governments intends to help nations' practical and comprehensive advancement aspiration

Khondoker Abdul Mottaleba Kaliappa Kalirajanb (2010): Barrier between homegrown reserve funds and venture and bringing the most recent innovation and the executive’s skill from created nations, unfamiliar direct speculation (FDI) can assume a significant part in accomplishing fast financial development in agricultural nations. The truth of the matter is that agricultural nations have not been considered as positive objections for FDI, as FDI for the most part goes to created nations. Also, among the non-industrial nations, a couple of nations, for example, China, India, Nigeria and Sudan are the major FDI beneficiary nations. The remainder of the agricultural nations are just battling for the pieces. Utilizing board information from 68 low-pay and lower-center pay non-industrial nations, this paper endeavors to recognize the variables that decide FDI inflow to the agricultural nations. In light of a similar conversation zeroing in on why a few nations are fruitful in drawing in FDI while others are not, the paper shows that nations with bigger Gross

domestic product and high Gross domestic product development rate, higher extent of worldwide exchange and with more business cordial climate are more effective in pulling in FDI.

Muhammad Azam: This examination analyzes the expected impact of political danger and macroeconomic arrangement vulnerability on FDI in South Asia. To feature the effect of political danger and full scale strategy vulnerability on FDI, we arrangement a hypothetical system dependent on oligopolistic and flawed rivalry climate in have country. Autoregressive disseminated slacks (ARDL) is utilized to look at the effect of political danger and full scale financial strategy vulnerability file on FDI inflows. Macroeconomic strategy vulnerability and political danger lists are developed for this reason. The since a long time ago run results show negative effect of political danger and macroeconomic strategy vulnerability records on FDI inflows.

Mahir Binici a,b Michael Hutchison a,c Martin Schindle (2010): Monetary globalization has expanded drastically in the course of recent many years. At more than 300%of world Gross domestic product in 2006, monetary incorporation, estimated as the amount of a country's outer resources and liabilities comparative with Gross domestic product, is presently more than six times bigger than in 1970 .Expanded monetary coordination thus has started a wide and lively conversation among scholastics and policymakers on the hazard and openings that these improvements bring. A large part of the discussion has zeroed in on the attractive quality and plausibility of restricting the volume and structure of capital inflows and surges and, in specific, the adequacy of forcing lawful limitations on cross-line monetary exchanges, one of the couple of instruments at the removal of policymakers to impact capital streams.

Simona Gabriela MAŞCA Viorela Ligia VĂIDEAN (2008): our investigation portrays the outward FDI wonder in Romania in the light of Dunning's Venture Advancement Way hypothesis, in light of the connection between a country's advancement level and its net worldwide venture position that has recently been applied to most CEE nations with the exception of our own. A progression of markers are utilized, closing that, these days, Romania is arranged in the second phase of IDP. More, we found that the IDP worldview is for the most part material to Romania; the particular component comprises in greater development paces of FDI inflows than of Gross domestic product in the main phases of IDP. Some arrangement ramifications are drawn.

Behrooz Shahmoradi(2010): The stamped ascent of FDI streams to big league salary nations since the mid-1990s has incited generous observational investigation into the significant determinants of FDI. This paper additionally has endeavored to distinguish significant determinants of FDI inflow for the chose major league salary nations (23 nations) since 1990. In view of the connected survey of writing, six factors (Surge, Gross domestic product, BOP, Fare, Import and Work) have been chosen. Utilizing adding-up/different relapse models, critical determinants were distinguished.

Paul J. J. Welfens and Fabian J. Baier (2018): This contribution takes a replacement look into the gravity equation model in reference to foreign direct investment (FDI) of leading industrialized countries that presents a helpful basis for assessing certain potential impacts arising from BREXIT—the envisaged feat of the EU by the United Kingdom. The gravity equation calculable later permits one to contemplate the case of BREXIT and the broader role of EU membership and different variables. Gazing the amount from 1985 to 2012 for a dataset that contains thirty four OECD (Organization for Economic Co-operation and Development) countries, Pseudo Poisson

most probability (PPML) II fastened estimations take under consideration a broad set of approaches and variables. Besides the normal variables of the EU/EU single-market membership of the supply country and of the host country, we tend to additional think about the role of trade openness in addition as company tax rates and therefore the quantitative relation of inward FDI stock to total capital stock. The analysis shows that trade openness could be a variable which might be for the most part replaced by the inward FDI stock/capital stock quantitative relation in order that gravity FDI modeling with a robust stress on trade openness is likely to amplify the role of trade and to minimize the role of relative FDI accumulation effects.

Nadia dotch (2015): This examination intends to investigate how sectorial unfamiliar direct venture (FDI) inflows in South and East Asian economies react to changes in the business patterns of the host nations, as estimated by their yield holes. We center on 15 economies during the time frame 1980–2011 and look at inflows of FDI in extractive ventures, assembling and administrations notwithstanding total FDI by utilizing a powerful board Blundell–Bond GMM procedure. We discover proof of countercyclical conduct of administrations FDI and cyclical conduct of both extractive enterprises FDI and assembling FDI. The countercyclical conduct of administrations FDI in South and East Asia has significant approach suggestions.

Angathevar Baskaran, Ju Liu and Mammo Muchie (2011): Research approach which accentuates on subjective understandings instead of evaluated estimations and the contextual analysis strategy to see how OFDI from TNCs in chose nations have molded and developed over the time of 1999 to 2009. Cross-contextual investigation is directed in light of the fact that ends derived from cross-contextual analysis are viewed as additional persuading than those from single-contextual analysis (Herriott and Firestone, 1983). Case correlation approach is picked on the

grounds that it is more appropriate than case survey approach in cross-contextual analysis. The case-study approach isn't the most alluring in light of the fact that it just can be utilized in profoundly particular circumstances, where, for However, the extraction of single factor from a contextual analysis may unduly work on the marvel being examined. In our exploration we can't utilize case survey approach, as the quantity of elements deserving of assessment is excessively enormous. Subsequently, the case-correlation approach is probably going to demonstrate more productive for cross-case investigation.

Edward m. Graham, Erika Wada (2002): As per official sources, in the time frame 1992-96, FDI from creating Asian countries overwhelmed all out FDI streams into China, yet since 1996 a developing bit of these streams has come from different sources (i.e., Europe, North America, and Japan). This last FDI for the most part has been of an unexpected character in comparison to FDI from creating Asian countries. While the last has been moved in trade preparing exercises in areas in which China has uncovered near advantage, a large part of the previous has been coordinated more toward the homegrown market in areas in which China has no uncovered relative benefit. Consequently one outcome of a rising level of FDI from Japan, Europe, and North America has been that generally speaking the exercises of unfamiliar put ventures in China have gotten to some degree more centered on the homegrown market, and less on trade markets, in the last part of the 1990s comparative with the mid-1990s. The results are examined in more detail later in this paper. This incorporates an econometric trial of whether FDI in China has added to expanded all out figure profitability development those regions that have gotten a lot of FDI.

Nagesh Kumar (1998): This paper analyses the arising patterns and examples in FDI inflows to India. A significant target is to assess the job that approach progression has played in modelling

these examples. This is endeavoured with an investigation of changes in India's offers in FDI outpourings from European and other tern ion wellsprings of FDI just as by breaking down the progressions in the portions of significant source nations with strategy advancement. The creator finishes up with a couple of comments for strategy.

Abdin, M.J. (2015): The South Asian Relationship for Provincial Collaboration was authoritatively settled in December 08, 1985. The South Asian Deregulation Region (SAFTA) go into power on July 01, 2006 under the umbrella of SAARC. From a similar stage the SAARC Concurrence on Exchange Administrations go into power on November 29, 2012. SAARC Concession to Advancement and Assurance of Venture is yet to be concluded and go into power. Meanwhile 30 years gone. SAARC is the home of 21% (1.7 billion) total populace with 9.12% of worldwide riches. Joined SAARC is the third biggest economy of the world. Be that as it may, countless world's destitute individuals are living around here. With its different scene and assortment of regular assets SAARC has each potential for monetary turn of events and neediness lightening inside most limited conceivable time. To accomplish this target SAARC pioneers must be submitted for additional monetary incorporation under this basic stage. Work age and business venture advancement could be a compelling weapon in such manner. To create work for a particularly enormous measure of populace colossal venture is required. Intra SAARC venture advancement just as drawing in unfamiliar direct speculation (FDI) could be the perhaps the most ideal alternative. SAARC Concurrence on Advancement and Security of Venture must be go into power quickly. Simultaneously a focal foundation must be set up to advance FDI into the SAARC nations according to separate intensity, crude materials, gifted labor and so on accessibility.

Colin Kirkpatrick (2004): The panel data collected for developing counties from 1995 to 2005.In agricultural nations, a fundamental prerequisite for financial development and manageable improvement is the arrangement of proficient, solid and reasonable framework administrations, such as water and sterilization, force, transport and broadcast communications. The accessibility of proficient framework administrations is a significant determinant of the speed of market improvement and yield development, and what's more, admittance to moderate framework administrations for utilization purposes serves to improve family government assistance, especially among the poor. In many nations, nonetheless, the likely commitment of framework to financial development and destitution decrease has not been completely acknowledged and existing framework stock what's more, administrations miss the mark concerning necessities.

Slavica Penev (2007): This paper investigates and looks at venture environments and patterns in the South Caucasus and Focal Asia. The investigations and examinations were led taking into account the effects of momentary advancement, monetary turn of events, and the energy holds from these areas on the inflow of unfamiliar direct speculation. Improvement of the speculation environment by speeding up the change cycle and diminishing speculation dangers can be viewed as the main determinants of FDI inflows into the nations of these two areas. Primary expansion of South Caucasian and Focal Asian characteristic asset based economies would be fundamental in finishing reliance on the energy and mining areas and would have positive long haul impacts on financial development and the speculation environment, and pull in other, extra kinds of FDI.

Chapter 3: Research Methodology

3.1 Introduction

The research is analysed on secondary data. From the data collected from World Bank, a regression analysis will be used to establish the correlation between GDP and Foreign Direct Investments over the stated period. An analysis of the relationship between the Foreign Direct Investments on GDP Growth will be done by the researchers. Data will be presented using charts, line graphs and various statistical output using statistical Tests. These methods of data collection are preferred because they will complement each other in the research operation to come out with relevant and comprehensive information.

Therefore; Research methodology is systematically solving the research problem, it may be understood as it is like a science of studying how research is done scientifically.

This section examines the exploration system utilized for completing the investigation. It incorporates the time of the examination, information sources used to extricate the information of data size, sample size used for analysis, research hypothesis formulated using statistical tools, techniques and econometric models used to study the data.

The examination system is separated into five areas. Area I features the Period of the Examination, Segment II the Information or data Sources utilized for doing the investigation,

Segment III shows the sample Size selection and the strategy utilized for choosing the sample from the populace, Segment IV expresses the research hypothesis, Segment V shows the statistical tools, methods and econometric models utilized for studying the data and the last section VI Records the methodology for data analysis used for studying.

3.2 OBJECTIVES OF THE STUDY

The study will suggest what the researchers want to achieve at the end of the day are as below:

1) The first objective examines the critical analysis of the trends of FDI Inflows and Outflows of Asian Developing Nations.
    a) To analyse the Trend of FDI inflows and FDI outflows from Developing Nations Prior to Global Financial Crises (GFC).
    b) To analyse the Trend of FDI inflows and FDI outflows from Developing Nations Post Global Financial Crises (GFC).
2) The second objective examines the determinants of FDI Inflows in Asian Developing Nations.
    a) To assess and study the determinants of domestic (Pull) factors in attracting FDI Inflows
    b) To assess and study the determinants of global (Push) factors in attracting FDI Inflows

3.3 Period of the study:

The time period which is analysed from the year 1990 to 2019 (i.e.29 years) to study growth and various trends of FDI inflows and FDI outflows from developing countries.

Further, the time period of analysis is restricted to 19 years from 2000 to 2019 to examine the factor determinants of FDI inflows and outflows from developing nations, because the proper data was not available before the year 2000.

3.4 Variables employed in the study:

The Variables employed in the study are as below:

Table 3.1 Variables employed in the study

Variables	Data Definition	Data Source
Fdi	Direct investment or foreign	Authors computation using IMF BOP statistics
GDP_g	GDP growth rate annual %	WDI World Bank
Inf	Inflation	WDI World Bank
IQ	Institutional Quality	Authors computation using, Mean of 6 governance indicators (control of corruption, government effectiveness, stability in Politics, absence of violence, terrorism, regulatory quality ,law of rule, and voice and accountability) WGI World Bank
FD_index	Index of Financial Development	IMF (Svirydzenka),2006
KO	Capital Openness Index	(Chinn, Ito, Chinn, and La, 2007)
Gc_exp	General Government Final Consumption	WDI World Bank
Gross_debt	Gross Debt % of GDP	WDI World Bank
REER	Real Effective Exchange Rate	WDI World Bank
TO	Trade Openness	WDI World Bank
Commodity p – s	Commodity prices	WDI World Bank
Liquidity	Global liquidity	Growth rate of M2 of G7 ecnomies, WDI World Bank
Global _growth	Growth rate of World GDP annual %	WDI World Bank
SP_500	Global Returns S&P 500 Index returns	Annual data extracted from (www.macrotrends.net)
VIX	Global Volatility Index (VIX/VXO)	Chicago of Governors of the Exchange's CBOE Volatility Index

3.5 Meaning of Variables Employed

1. FDI Inflows and Outflows. (% of GDP)

As per WDI World bank statistics, investments made by the investor divided as FDI are equity capital, the reinvestment of earnings and the provision of long term and short-term intra-company loans (i.e. between parent and affiliate enterprises). Data are analysed based on WDI World Bank (% of GDP).

2. GDP (% of GDP)

Gross domestic product at buyer's or prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is determined without making deduction for depletion and deterioration of natural resources. Information are in current U.S. dollars. Dollar figures for Gross domestic product are changed over from home grown monetary forms utilizing single year official exchange rates. Gross domestic product is utilized as an intermediary for Market size and Economy size.

3. GDP Growth Rate (annual %)

It is an annual percentage growth rate of GDP at market prices based on constant local currency. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets and degradation of natural resources. GDP growth rate measures how fast the economy is growing. The rate compares the most recent quarter of the country's economic output to the previous quarter. GDP is used for economic output and also it can be used as a proxy for economic growth.

4. Inflation Rate (Consumer Price Index) (annual %)

It is the rise in the prices of most goods and services of daily or common use, example such as, recreation, clothing, housing, food, transport etc.Inflation calculated by the consumer price index (i.e. CPI) which reflects the annual percentage change in the cost to the average consumer of acquiring a commodities and services that may be constant or changed at specified intervals, like yearly.

5. Institutional quality (IQ)

Economic development and institutional quality reinforce each other over long term. That captures law, high quality government regulation and services and individual rights .To measure economic institution we use World Bank Worldwide Governance Indicators (WGIs) for government to be effectively regulation and the various laws and rule to control corruption, political stability, absence of violence, terrorism, quality, rule of law and voice and accountability.

6. Index of financial development (FD_index)

To correct this omission, the Financial Development Index *was* developed for IMF. IT measures and studies the various factors enabling the financial systems for development of different economies. It gives a comprehensive benchmark for various aspects of their financial systems.

7. Capital account openness index (KO)

The index was initially introduced in Chinn and Ito. It is an index measures a country's degree of capital account openness.

8. General government financial consumption expenditure annual % (GC_exp)

General government final consumption expenditure tells the general spending's of governments which includes federal, territorial, and local on the goods and services. The goods and services are consumed by the general government within the year which are purchased during particular year.

9. Gross debt % of GDP (Gross_debt)

It's comparison of a country's public debt to its gross domestic product (GDP). By doing comparison what a country owes with what it produces, the debt-to-GDP ratio we come to know that the particular country's ability to pay back its debts.

10. Real effective exchange rate (REER)

REER is the weighted average of a country's currency to an index of other major currencies of a country. The weights are represented d by comparing the trade balance of a country's currency against that of each country in the basket.

11. Trade openness (TO)

Trade openness adds the imports and exports in commodities and services and divides the sum by GDP.

12. Commodity prices

It's a physical goods bought and sold.

13. Global liquidity (Liquidity)

It's an availability of funds for purchase of goods and services in global market.

14. Global returns S&P 500 index returns (SP_500)

A stock market index that tracks 500 publicly traded domestic companies.

Annual data extracted from (www.macrotrends.net)

15. Global volatility index (VIX /VXO)

VIX is symbol and famous name for the Chicago Board Options Exchange's. Index presently known as VXO. It helps in finding the market's expectations for volatility over the coming 30 days. Investors uses this VIX to analyse the level of tension, or stress, risk in the market while deciding the investment are to be made.

3.6 Data Sources and the data collection:

3.6.1 Data Sources:

This section represents that the sources of the data which is collected. Current data study completely depends on the secondary data collected from various sources, which are WDI World bank, World Investment Reports (WIR), IMF"s World Economic Outlook Report, Also, the Research papers of various work ,Theses, UNCTAD, dissertations, journals, reports, etc. for a detail literature review.

For this analysis, the data we require on the following aspects which is obtained from the respective sources as below:

1. Data on Foreign Direct Investment (FDI) Inflows and Outflows is obtained from WDI World bank Statistics.(https://www.worldbank.org/en/home)
2. Data on Gross Domestic Product (GDP), GDP Growth Rate, Inflation Rate, Institutional Quality, Index of Financial Development Global Liquidity, Capital Account Openness Index, General Government Final Consumption, Gross Debt % of GDP, Real Effective Exchange Rate, Trade Openness, Commodity, Global Liquidity, Global Returns S&P 500 index returns and Global Volatility Index (VIX/VXO) which are obtained from World Banks World Development Indicators (WDI).
   http://databank.worldbank.org/data/source/world-development-indicators

Table no: 3.2 Description of Sample size vis-à-vis objectives

Sr. No. of Objectives	Nature of Data	Period of Data	Population (Developing Countries)	Countries Selected
FDI Inflows, Outflows	Panel data	1990 to 2019	10	Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea Republic, Malaysia, Pakistan, Singapore

3.7 Research Hypotheses:

The Research hypothesis is critically evaluating, accessing the reliability and the validity of the data which is to be tested. On the bases of objectives of the study, a null hypothesis (H0) and alternative hypothesis (H1) are been constructed. The following are**:**

H1: There is no significant relationship between FDI inflows of Asian Developing Nations and its determinants of the study.

H1a: There is no significant fixed effect panel data model.

H1b: There is no significant random effect panel data model**.**

H1c: Random Effect Model is appropriate

3.8 Techniques, Tools of the statistical study and their Econometric data Models:

The section depicts the various measures consisting of statistical tools, techniques and their econometric models employed to carry out data analysis.

1. To analyse the graphical representations using various line graphs which have been interpreted for the FDI Inflows and Outflows, the growth rate, annual growth rate, Compound Annual Growth Rate (CAGR) and the Average Growth Rate (AAGR) have been calculated for the same.
2. To observe the various impact of the factors which determine on the FDI Inflows and Outflows of the Asian Developing Nations, using the Panel Data Econometric models which are been used for the analyses;

a) To identify and understand the Descriptive Statistics have been utilized to measure the Central Tendency i.e. Mean Value, Standard Deviation, Maximum Value, Minimum Value and the coefficient of variation i.e. (CV) for all the variables in the study are used.

b) Correlation analysis also used in the study to know the how close two variables in the observation have a linear relation between them, and to analyse the statistical association of degree between the various variables used.

c) Panel Data Models are used to find out the impact of socio economic factors like Foreign Direct Investment (FDI), GDP Growth Rate, Inflation, Institutional Quality, Financial Development Index, Capital openness (KO), General Government Final Consumption, Gross Debt, Real Effective Exchange Rate (REER), Trade Openness (TO), Commodity prices, Liquidity, Global Growth Rate, Global Returns S&P 500 Index and Global Volatility Index.

The following are the Panel Data Model for Econometric Equation is used to know the impact of factors on FDI inflows on developing nations.

$$Y_{et} = a + \beta_1 x_{1it} + \beta_2 x_{2it} + \beta_3 x_{3it} + \beta_4 x_{4i}t + \beta_5 x_{5it} + \beta_6 x_{6it} + \beta_7 x_{7it} + \beta_8 x_{8it} + \beta_9 x_{9it} + \beta_{10} x_{10it} + \beta_{11} x_{11it} + \beta_{12} x_{12it} + \beta_{13} x_{13it} + \beta_{14} x_{14it} + u_{it}$$

Where,

Y = FDI inflows in Percentage of GDP (Dependent Variable),
a = Constant
β = Coefficients of Regression variable
u = Error Term
i = 1, 2, 3, 4, 5….. N (Cross Sectional Units which is in Countries)
t = 1, 2, 3, 4, 5….. N (Time Period of the data which is in Years)

Independent Variables:

X1 = GDP Growth Rate
X2 = Inflation
X3 = Institutional Quality
X4 = Financial Development Index
X5 = Capital openness
X6 = General Government Final Consumption
X7 = Gross Debt

X8 = Real Effective Exchange Rate
X9 = and Trade Openness
X10 = Commodity prices
X11 = Liquidity
X12 = Global Growth Rate
X13 = Global Returns S&P 500 Index
X14 = Global Volatility Index.

Based on the empirical literature classifies the determinants of capital flows into external 'push' factors and domestic 'pull' factors. As per (Ahmed Hannan, 2017; Ahmed & Zlate,2014), the idea behind this approach is based on the portfolio balance theory/approach which suggest that expected return, risk, and investor risk preferences across countries determines capital flows. The dissection between push and pull determinants originates from the study of (Calvo et al., 1993; Fernandez - Arias, 1996) and is being used as a theoretical framework since 1990s. However, an alternative approach proposed by (Bohn & Tesar, 1996) using Capital Assets Pricing Model (CAPM) exist, but this approach is not extensively used as in the case of push-pull framework.

Using the push-pull framework proposed by (Calvo et al., 1993; Fernandez- Arias, 1996) following the study of (Ahmed Hannan, 2017), the general empirical model is as follows:

$$y_{it} = \alpha_0 + \sum_{i=1}^{n-1} \alpha_i D_i + \beta_0 \, External_t + \beta_1 \, Domestic_{it} \quad [1]$$

Where, y_{it} denotes the dependent variables representing the aggregate and disaggregate capital inflows (Direct investments, foreign portfolio investment, other investments expressed as a ration to GDP) for country 'i' and D_i = 1

If the observation pertains to the country 'i' and D_i= 0 otherwise). The equation is followed by a vector of external or push factors and a vector of pull factors or domestic factors.

Although, a vast literature exists, the relative merit of findings from this study confine to the use of traditional OLS and fixed effects or otherwise a random effect model. One of the major drawbacks of this estimation methodologies is the disregard to the dynamic nature of the model.

Thus, to overcome this shortfall we have introduce the equation [1] with its dynamic nature as follows:

$$y_{it} = \alpha_0 + \beta_0 y_{it-1} + \beta_1 External_t + \beta_2 Domestic_{it} \quad [2]$$

Where, y_{it-1} represents one period lag of the dependent variable representing the aggregate and disaggregate capital inflows. Due to the dynamic nature, we apply the two-step system GMM for the estimation of dynamic panel data. The systems generalized method of moments (GMM) estimator is applied when the empirical estimation is faced with a severe problem of indigeneity (Nickell, 1981). Our estimation following equation [2] with a lagged value of dependent variable introduces a risk of indigeneity. Many previous studies like that of (Armah & Fosu, 2018, Globerman & Shapiro, 2002; Liu, Burridge, & Sinclair, 2002) faced with an issue of endogeneity, thus making the results biased. A solution to the pertinent issues was first offered by (Anderson & Hsiao, 1982) and (Arellano & Bond, 1991) who propped use of GMM estimation which was later improved by (Arellano & Bover, 1995).

Further extension was proposed by (Blundell & Bond, 1998) to reduce bias estimation in fixed effects in shot panels and to reduce indigeneity in dynamic.

3.9 Procedures used in the data analysis

3.9.1 Descriptive statistical analysis:

This analysis is summarizing, organizing, evaluating, presenting, the statistical data, i.e. the information. Descriptive statistics are used majorly to understand the various measures of the statistical techniques such as Mean Value, Minimum value, Maximum value, Measures of Dispersion, i.e. (SD) Standard Deviation , The coefficient of variation (CV) of all the variables present in the data.

3.9.2 Correlation Analysis:

This study of correlation helps to measure the relation between the variables for the same. Coefficient of correlation i.e. simple correlation (Karl Pearson) is the most preferred technique to measure the degree of relationship between the two variables of the data provided. In simple words correlation is a way to test whether the two variables have any kind of relation, or maybe it is positively correlated or negatively correlated. Whereas, p-value tell the various variable results of an observed experiment is statistically significant (*10% significant, **5%significant and ***1% significant level) or insignificant.

3.9.3 Regression Analysis:

Regression analysis is the statistical relationship between the two or may be more variables. There are mainly two ways of regression i.e. Simple and Multiple regression. However, in our study covers multiple regression.

Multiple Regressions;

If there are two or more two independent variables, the study tells the relationship is called as multiple correlation and such equation is as follows:

$Y^ = a + b_1X_1 + b_2X_2$

Where, $Y^$ indicates Estimated value of Y for X value given

And, X_1 and X_2 are the two independent variables

Y = dependent variable
a = constant
b_1 and b_2 are the two regression coefficients variables

Regression coefficient (b_1 and b_2) in the Multiple Regression Analysis becomes less reliable as the degree of correlation between independent variables i.e. X_1 and X_2 increases. If there is high degree of correlation between independent variables than there would be a chance of multicollinearity. The prediction can be made for dependent variables even if there is presence of multicollinearity, but it is necessary that multicollinearity is decreased to the minimum (Kothari, 2007)

3.9.4 Panel Data Modelling

This analysis tells the various uses of Panel Data Modelling for data analysis, as Panel data is used. It has another for Panel Data i.e. longitudinal data or the cross-sectional time series data. This data series several different time periods for same units in observations.

Panel data evaluates the group effect i.e. individual-specific, time effect to deal with the heterogeneity or effect on individual which may or may not be observed.

The effects may be either Fixed or Random effect model where fixed effect evaluates if the intercepts vary across group or the period of time, on another hand Random effect tells the differences in the error variance components for individual or time period. In which one way model indicates only one dummy set and two-way model indicates two dummy set variables.

3.9.5 Pooled OLS Model or Ordinary Least Square

If the individual specific effect u_i (time effect or cross-sectional) doesn't exist (u_i) Pooled OLS Model estimates the efficient and consistent parameter.

$y_{it} = \alpha + X_{it}'\beta + \varepsilon_{it}$ ($u_i = 0$)

OLS suggest five assumptions (Greene, 2008: 11-19; Kennedy, 2008: 41-42)

a) **Linearity** tells the dependent variables is been formulated as a linear function of independent set of the variable and the error term or disturbance.

b) Exogeneity tells that the expected value of error term is zero or error term are not correlated with any regressor.

c) Disturbances has the same variance i.e.(**a homoskdasticity**) and which are not related to the one another i.e.(**b nonautocorrelation**).

d) Independent variable has the observation which are **not stochastic** but it is fixed in repeated samples without the measurement error.

e) **Full rank** tells the assumptions in which there is no exact linear. Relationship among the independent variables i.e. no multicollinearity.

3.9.6 Fixed Effects Model:

It investigates individual differences in intercepts while assuming constant variance and slope across individual or groups or entity. Since the period is invariant person unique effect is taken as a part of the intercept u_i is allowed to be correlated with the other regressor which is Ordinary Least Square assumption 2 is not violated. This model estimated by Least Squares Dummy Variables (LSDV) regression (OLS with set of dummy) and within the estimated methods.

3.9.7 Random Effect Model:

Heterogeneity or Individual effect is correlated with any regressor and then it error is estimated to specific group or items. Further, it is an individual specific random effect model known as an Error Component Model (ECM). The difference among the individual i.e. the period lies in their individual specific error, but not in their intercepts.

The Random effect is generally estimated by Generalized Least Squares (GLS) when an covariance individual structure *i*, $\sum$ (sigma) is called. Feasible Least Square or Estimated Least Square techniques is used to estimate the overall variance- covariance matrix when $\sum$ is not known.

3.9.8 Hausman Test for comparing Fixed Effect and Random Effect Models:

It is a statistical test in econometrics model which evaluates the consistency of the estimator when it is compared to an alternative, less efficient estimator which already been known as consistent. Thus, it helps one to evaluate if a statistical model corresponds to the data. To find the fixed or random effect is more significant and relevant in the panel data model, the Hausman test compares fixed and random effect models under the null hypothesis that an individual effects are correlated with any regressor in the econometric model.

3.9.9 Driscoll and Kraay:

It is a standard errors for coefficients which is estimated by Pooled Ordinary Least Squares or fixed effects within the regression.

Chapter 4: Trends in FDI Inflows and Outflows of Asian Developing Nations

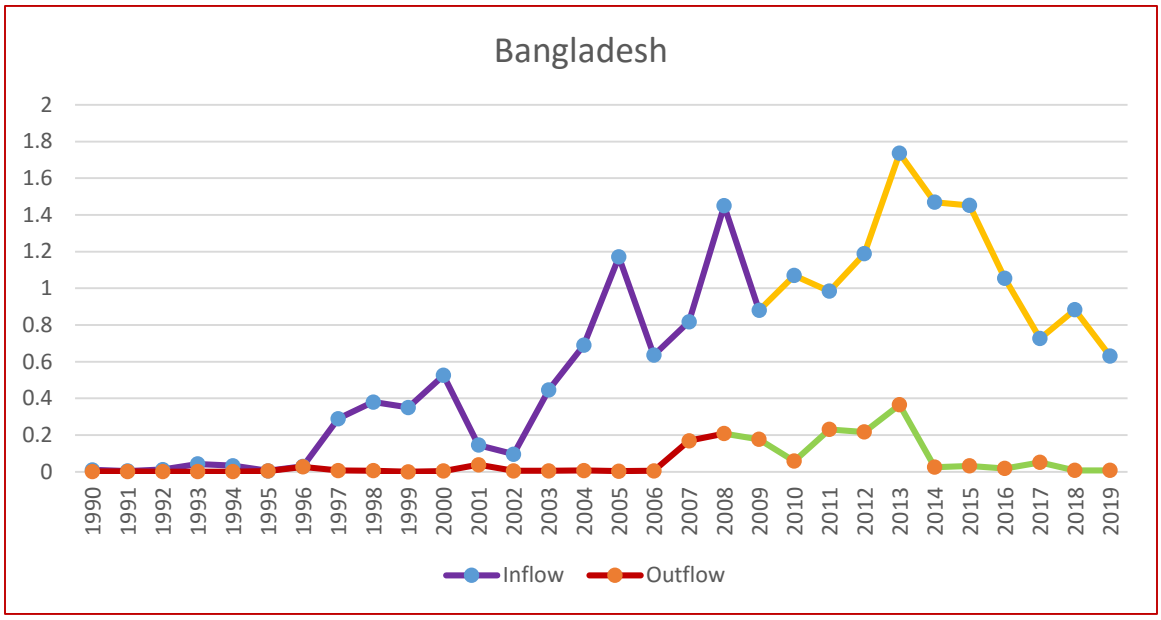
4.1 Introduction

Trends and pattern of FDI Inflows and outflows of developing Asian nations described in following cases:

This chapter explains the overall trend and pattern of the patterns of FDI Inflows and Outflows in developing Asian nation and also shown the analyses of the World, Regions and their Income groups for the period from 1990 till 2019. One of the mostly prominent feature of today's globalised world is the exponential growth of FDI in developing nations are rising faster worldwide. Developing countries are considered to be the safest type of external finances it only supplement savings of domestic, reserves of foreign but promotes growth of technology, skills, increased in innovative capability and the competition. Today FDI has become an instrument for the international economic integration.

Trends and Pattern of FDI Inflows and Outflows of Asian Developing Nations

Figure 1

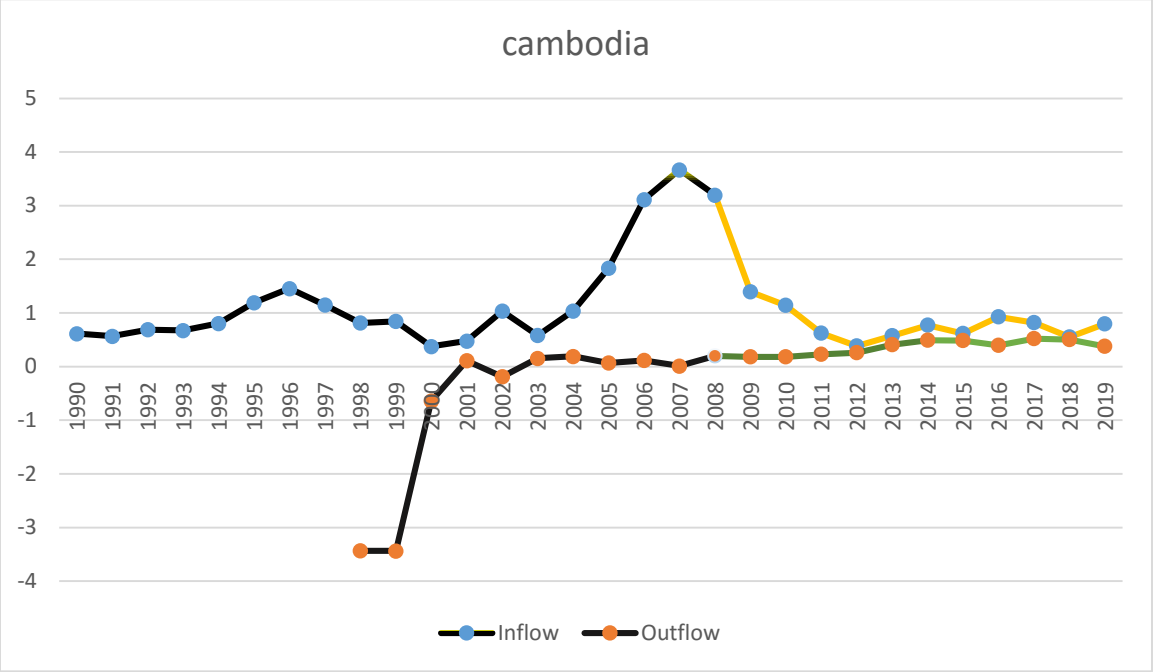


Source: Authors Compilation

Figure 1 from above chart depicts the pattern of graphical representation of FDI Inflow and Outflow for Bangladesh for the period starting from 1990 till 2019. It gives comparative difference between inside and outside the host country. Thus, there were some ups and downs between them during this period covered. Over a period the inflows from 1990 to 1996 it was almost steady i.e. 0.001 percentage of GDP, than starts moving upward till 2000 over a decade i.e. 0.5225 percentage of GDP, but again it starts declining in the year 2002 may be due to 1998 to 2002 Great Argentine economic Depression. The outflows from 1990 over a decade were continuously steady, after 2000 it was continuously rising up to 0.20 percentage of GDP value FDI decreased to 0.05 percentage of GDP due to may be reason that recession early 2002.

Again, FDI inflows peaked in the year 2005 i.e. 1.171 percentage of GDP after the crash in stock market between 2000 or 2002 after 2009 starts FDI inflows and outflows declines may be the reason that the Great US recession. In 2013 was the highest for both FDI inflow i.e. 1.735 and outflow i.e. 0.364 thereafter starts rolling dawn till end of the period.

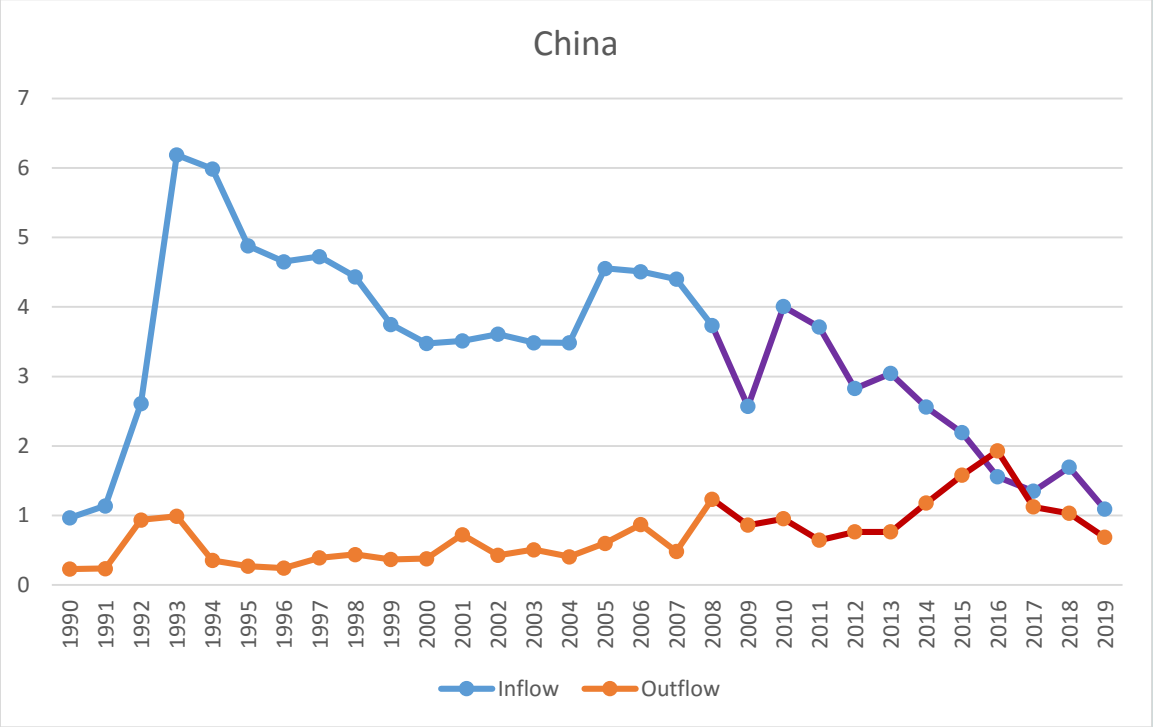
Figure 2



Source: Authors Compilation

The line graph from **Figure 2** above shows data about the Cambodia of FDI Inflows and Outflows. Over the period of 29 years. It begins in 1990 and shows the figure for the year till 2019. Overall FDI Inflow and outflow expected to grow slowly. Over the previous year FDI Inflow was at one pace i.e.0.612 percentage of GDP and was slowly starts rising in its peak i.e. 1.456 percentage of GDP. Whereby, it is further being noted that FDI outflow was at one pace over the starting year and very much negative in the year 1998 i.e.-3.434 percentage of GDP of the host country, then in the year from 2000 it starts increasing at o.109 percentage of GDP whereas FDI inflow drops in 2003 i.e.0.581 percentage of GDP also, outflow comes negative in 2002 i.e.-0.189 of percentage of GDP it can be due to the Great depression Argentine early 2000. The FDI inflow was at peak level in the year 2007 i.e.3.668 and outflow is slightly diminishing whereas, inflows were heavily declined after 2007 - 08 US crises which made huge recession in the economy. But overall going to see inflows starts moving upward slowly therefore it was a good sign for China.

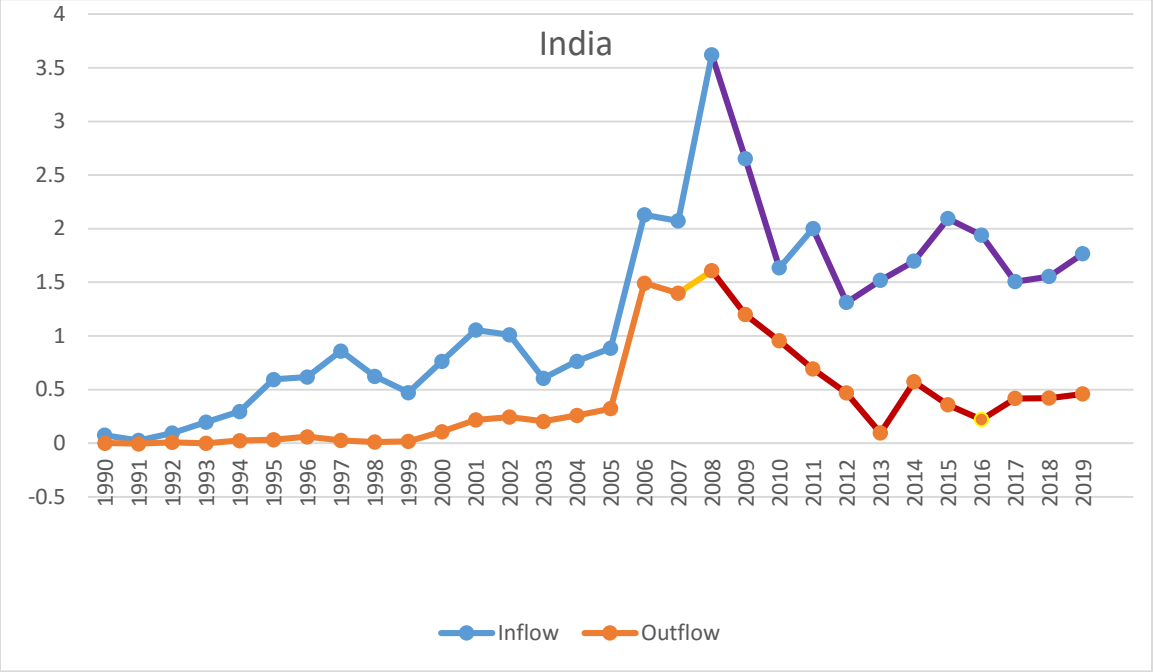
Figure 3



Source: Authors Compilation

Figure 3 Depicts the data collected from the World Bank shows FDI Inflows and Outflows for China. Over the previous year i.e. 1990 till 1991 growth rate was positive for both inflow and outflow but for the FDI inflow was at good sign it peaked heavily in the year 1993 i.e. 6.186 percentage of GDP and starts rolling back till 2004 inflow i.e. 3.483 and outflow i.e.0.407 percentage of GDP reason can be the recession of Great Argentine. However, it was positive for both FDI inflow and outflow but starts moving downward in 2007 i.e. inflow 4.400 percentage of GDP and outflow i.e.0.483 percentage of GDP can be due to Great economic crises in U.S. based. From 2009 FDI inflow and outflow starts peaking up to positive direction. Till end of 2019 China was lower for FDI outflow i.e. 0.684 and inflow i.e.1.091 of percentage GDP.

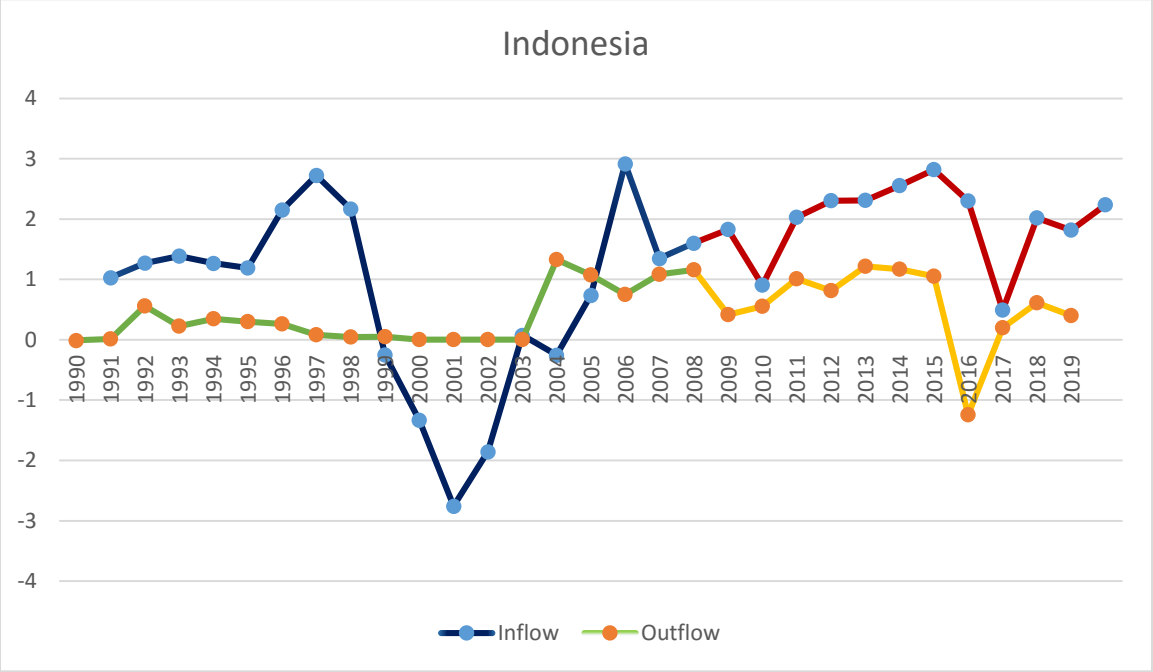
Figure 4



Source: Authors Compilation

Figure 4 from the above chart collected from World Bank displays the FDI Inflow and Outflow for India for the period of 29 years starting from 1990 till 2019. From the previous year till 1999 of the FDI outflow was comparatively smaller percentage increase from 0.001 to 0.017 percentage of GDP from India, on the other side the inflow were growing little bit faster than outflow till 1997 i.e.0.860 percentage of GDP and rolls back to dawn ward i.e. 0.472 percentage of GDP, the FDI inflow and outflow starts rising rolls down in the year 2003 may be due to the stock market crises of Argentine Great recession. Both FDI inflow at 0.886 and outflow at 0.321 starts moving upward rapidly in the year 2005 and comes to peak level in the year 2008 inflow i.e.3.620 and outflow i.e.1.606 percentage of GDP. After the down sharp observed in economy due to the crises in U.S which also affected India in which inflows starts diminishing heavily also outflows till 2013 after it starts recovering and peaking up steadily as an emerging market India handled the global recession pretty well which was worse than World War II which was highly affected to inflows as well as outflows.

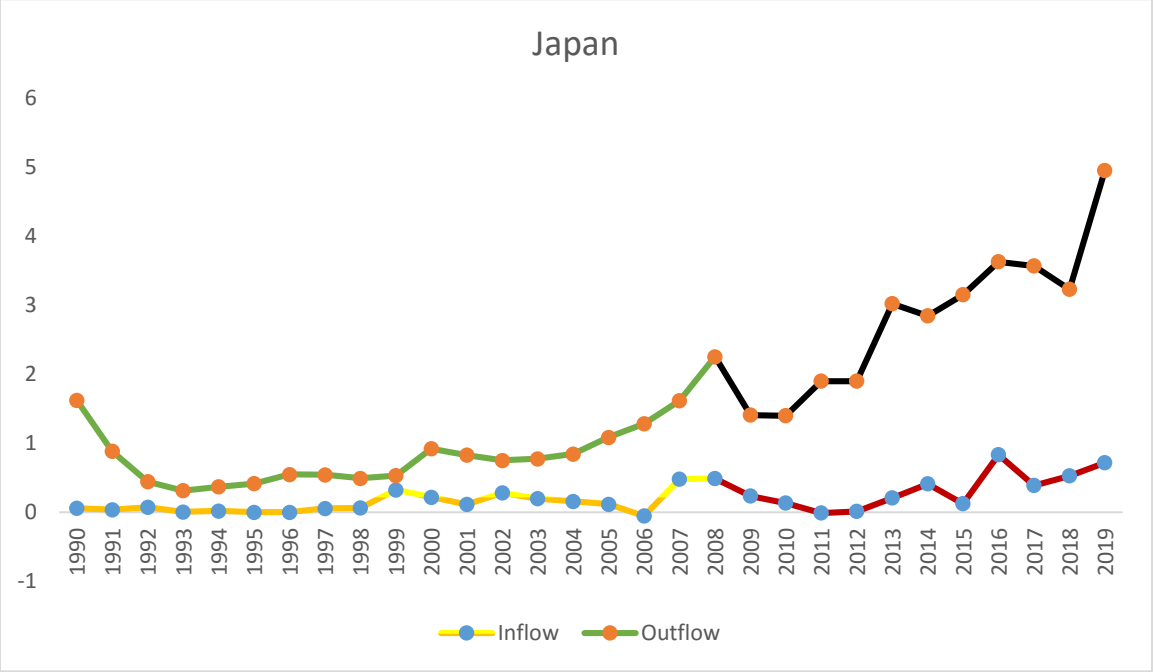
Figure 5



Source: Authors Compilation

The above **Figure 5** shows the depiction of FDI Inflow and Outflow of Indonesia over the previous year from 1990 to 1996 FDI inflows and outflows were positive and outflow slowly moves down and becomes steady up to the year 2003 becomes 0 percentage of GDP and increases in 2004 i.e.1.326 percentage of GDP. Whereas, on the other hand the FDI inflow starts decreasing heavily and was negative from 1999 till 2003 it comes to 0 percentage of GDP but in the year 2001 was the negative at highest level i.e.-2.754 which means the Great Argentine crises early 2002 hits hardly. From the period 2004 it was growing but rolls down in 2008 inflow for 1.603 and outflow i.e.1.156 percentage of GDP may be due to the Great recession in the U.S based economy which affected the whole world. Ultimately, it starts improving both comes at peak level together inflow at 2.819and outflow i.e.1.054 in the year 2015. Whereby outflow was negative in 2016 i.e.-1.244 and inflow falls i.e.0.473, but however both together starts moving upward direction.

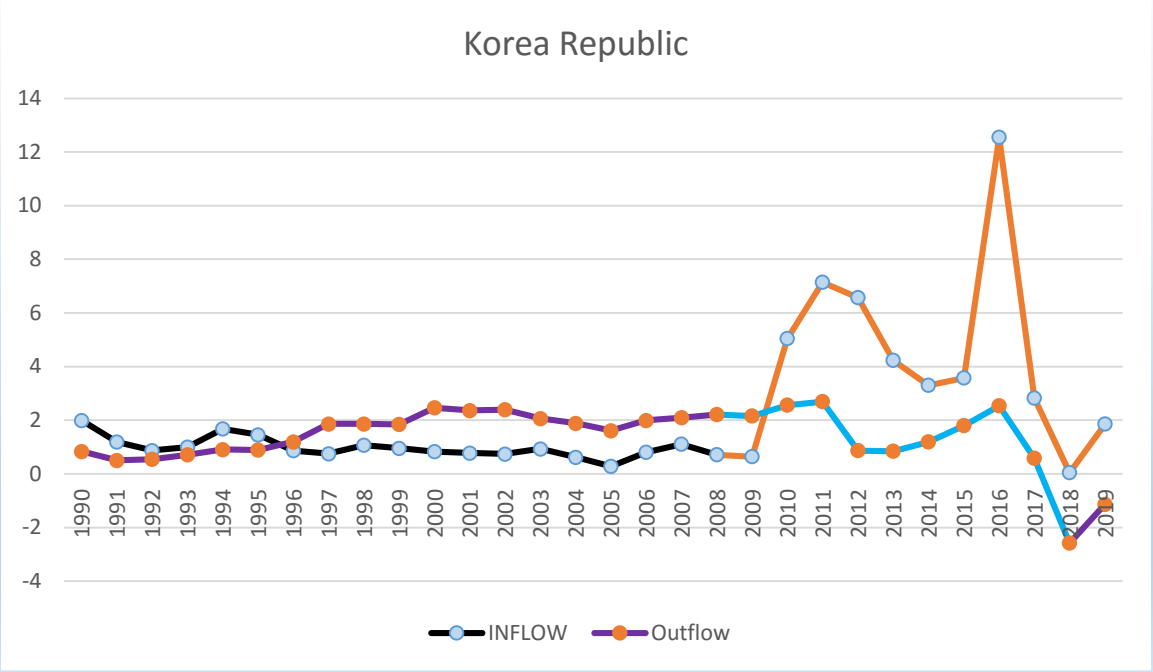
Figure 6



Source: Authors Compilation

The above from **Figure 6** chart displays the graphical representation of FDI Inflow and Outflow collected from World Bank for the period starting from 1990 to 2019. The FDI outflow in 1990 was at 1.620 percentage of GDP but falls and grows steadily till 2000 i.e.0.921 percentage of GDP value. However, the FDI Inflow was positive and steady from 1990 i.e. 0.057 and moves at one pace till 1998. After a decade the outflow starts moving upward direction till 2008 and starts decreasing from2.255 to 1.408 percentage of GDP thereafter grows heavily. Whereas the inflow was at peak in the year 2008 i.e.0.488 percentage of GDP, the fall may be due the Great recession in U.S based economic crises which brought the prices of valuable assets. After 2015 downfall in outflow and inflow it starts picking up. And in outflow there was very high point can be seen in the year i.e.4.950.

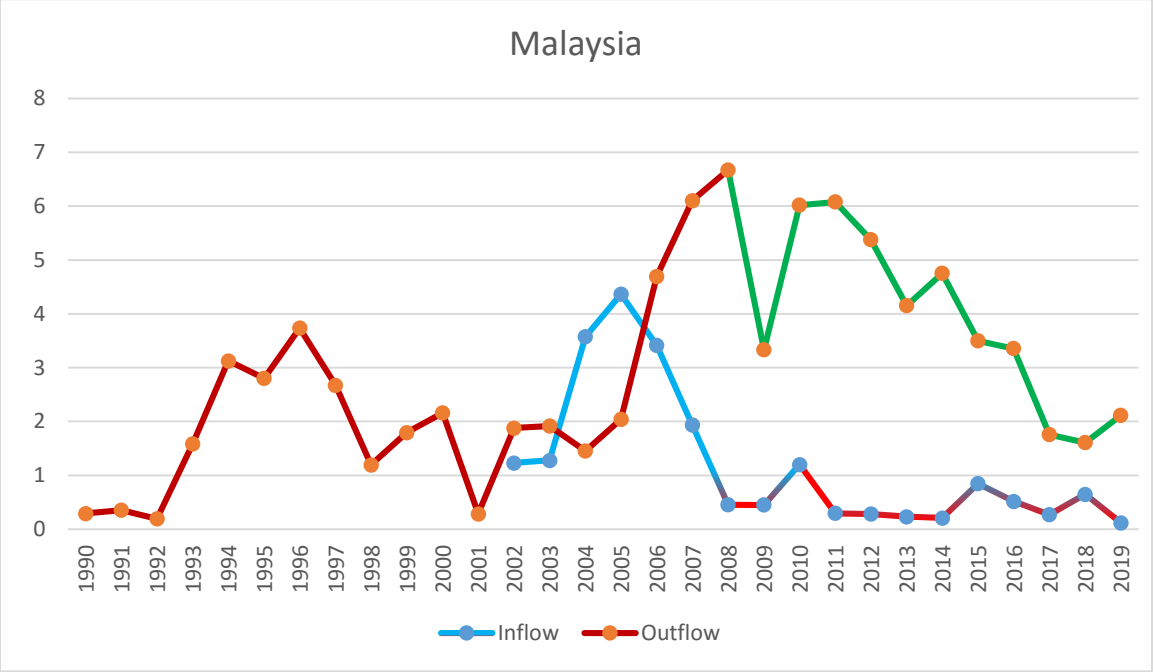
Figure 7



Source: Authors Compilation

Figure7 depicts a graphical representation shows the FDI Inflow and Outflow collected from World Bank for Korea Republic. From the year 1990 till 2004 both were moving steadily. After that from 2005 it can be viewed to be fall in trend of FDI inflow i.e.0.279 percentage of GDP and outflow i.e.1.616 percentage of GDP may due to recession Great Argentine in early 2002. The positive increase was seen both for inflow and outflow but due to the crises U.S based recession in the year 2007-2007 shows major decline in 2009. FDI inflow reaches to peak in the year 2011 i.e.7.143 percentage of GDP and outflow rise at 2.687 percentage of GDP. In the year 2016 there was the heavily rise in the inflow i.e.12.544 which was the highest compare to other period. After 2016 both the FDI inflow and outflow starts declining but the inflow takes a positive position after 2018, but the outflow was negative in the year 2018 i.e.-2.586 but its showing positive sign of rising in future.

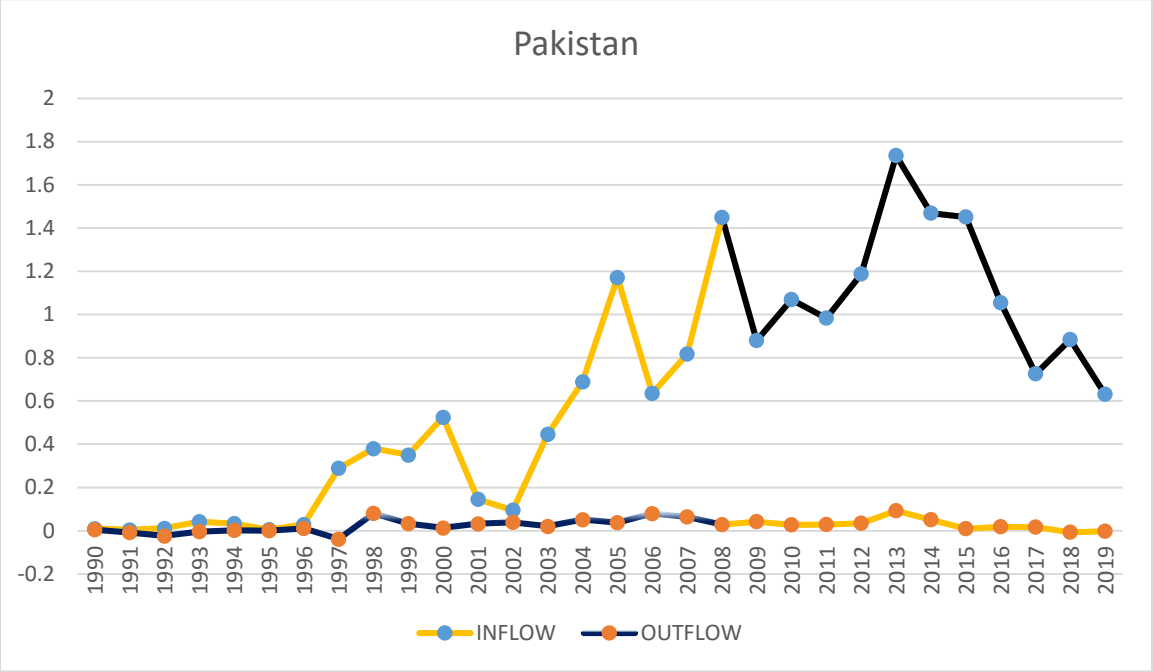
Figure 8



Source: Authors Compilation

Figure 8 explains the trend of FDI Inflow and Outflow for Malaysia from the year 1990 to 2019 i.e.29 years. The FDI outflow was steady before the previous year i.e.1992, it starts moving upward direction in the year 1994 outflow was at peak i.e.3.127 percentage of GDP. But there were ups and down in between but in 2001 outflow was lowest compare to other period i.e.0.287 may be it can be due to the Great Argentine crises. The FDI inflow starts in the year 2002 i.e.1.232 percentage of GDP starts peaking at the highest level in 2004 i.e.4.364. percentage of GDP in 2008 the FDI outflow reached at highest level i.e.6.672 and starts declining but the FDI inflow declines soon after 2007 may be due to the world economic crises in U.S based recession which has affected the stock market and the valuables assets prices also affected. In 2011 inflow becomes steady and slowly moves upward and again starts falling till 2019 i.e.0.121. But FDI outflow starts rolling down heavily till 2018 i.e.1.607 percentage of GDP but after 2018 it was showing upward trend.

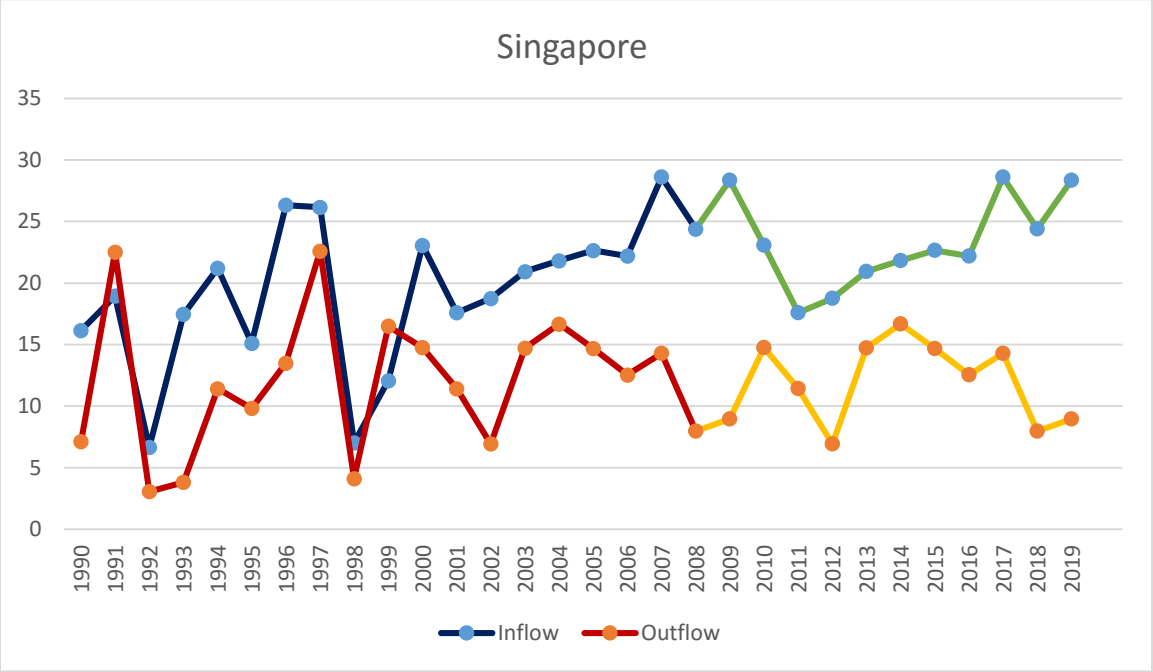
Figure 9



Source: Authors Compilation

From the above chart **Figure 9** shows the graphical representation collected from World Bank for Pakistan. The FDI outflow was steady from 1990 i.e. 0.004 percentage of GDP to 1996 i.e.0.010 percentage of GDP. Also, the FDI inflow was at almost one pace in 1996 i.e.0.029. But in 1997 the outflow was showing negative i.e.-0.038 percentage of GDP and maintains at one pace steadily till 2007 and falls slightly due to the economic crises in U.S based market. The FDI inflow was at peak compare to earlier period in the year 2000 i.e.0.525 but starts falling may it can be a Great fall back crises Argentine depression. After that the inflows was boasting heavily rise till 2008 considering in between ups and dawn starts declining from 1.449 percentage of GDP to 0.879 percentage of GDP in 2009 due to Great U.S recession happened which affected the whole world. Over a previous year the FDI outflow was growing steadily and starts peaking up in 2013 reached to 0.091 percentage of GDP and again becomes 0.018 percentage of GDP till 2019. On the other hand, the FDI inflow reached to highest peak in 2014 i.e.1.735 percentage of GDP but rolls down and becomes 0.630 percentage of GDP at the end.

Figure 10

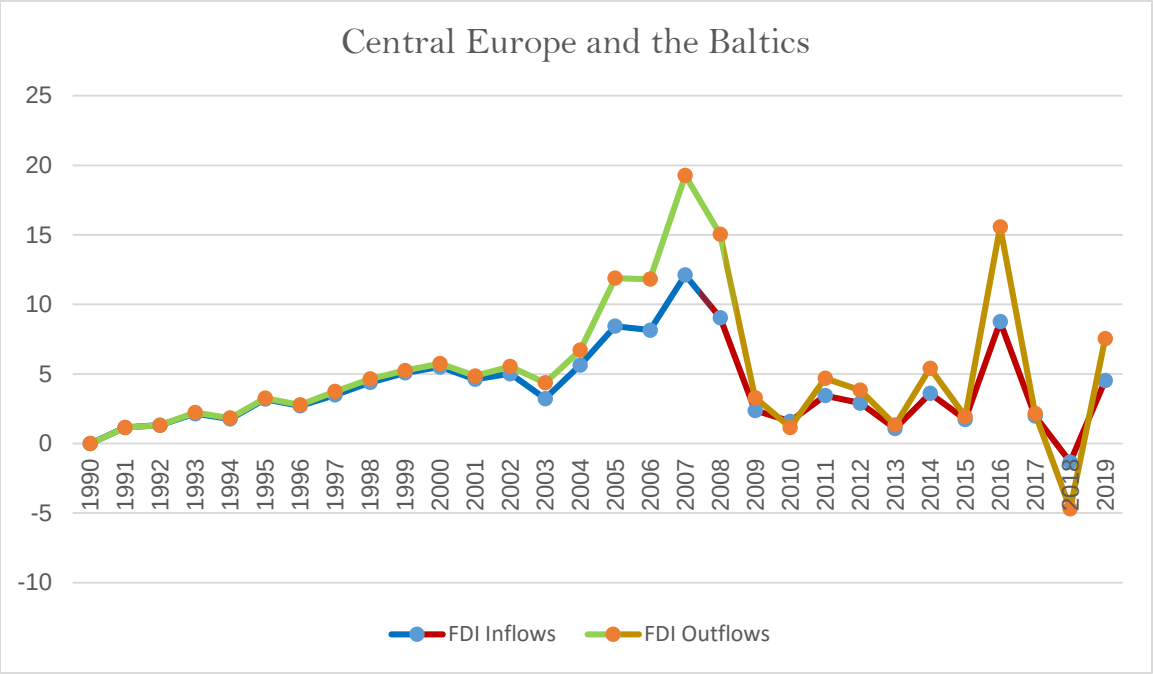


Source: Authors Compilation

The line graph shown in the **Figure 10** shows the graphical representation of FDI Inflow and Outflow, data collected from the World Bank for Singapore. The combined inflow and outflow from 1990 to 2019 i.e.29 years is been observed for Singapore. It was a good sign that FDI inflow was moving upward but falls heavily in 1992 i.e. 6.653 percentage of GDP whereas, outflow too was rising and falls back from 22.500 to 3.063 percentage of GDP in 1992. There was many ups and down in between them. In 2002 both falls down may be due to the crises which affected them i.e. Great Argentine fall back in early 2000.both i.e. inflow and outflow starts peaking upward movement in 2007 inflow at 28.598 percentage of GDP and outflow i.e. 14.283 percentage of GDP, but falls down rapidly inflow i.e. 24.392 and outflow i.e. 14.283 percentage of GDP may be due to the sudden U.S crises which affected whole world. After in between rise and fall both can be seen moving upward direction at the end of the year i.e.2019.

Trends and pattern of FDI Inflows and outflows according to regions are as follows:

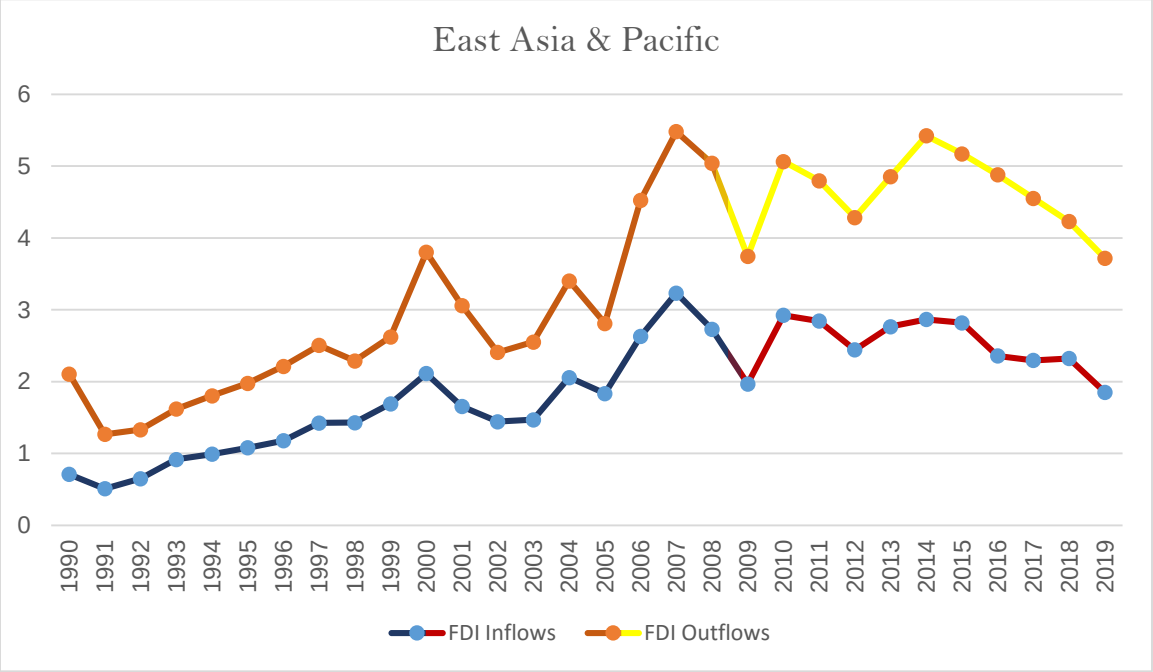
Figure 1



Source: Authors Compilation

From the above **Figure 1** depicts the graphical representation of regions for FDI Inflow and Outflow for Central Europe and the Baltics for the period starting from 1990 to 2019 i.e.29 years. Since 1990 it is noted to be increasing i.e. both FDI inflow and outflow considering ups and down in between. In 2003 i.e. for FDI inflow at 3.221 percentage of GDP and outflow at 1.141 percentage of GDP may be it can be due to the Great Argentine crises which caused loss. After the recession the trend was moving in the positive direction till 2007 its reaches to the peak i.e. inflow at 12.117 percentage of GDP and outflow at from 1.141 to 7.159 percentage of GDP. It registers to be heavy drop in 2010 inflow at 1.594 percentage of GDP and outflow at from 7.159 to -0.439 percentage of GDP taking into consideration again in 2018 registered to be a heavy decline and negative inflow i.e.-1.325 percentage of GDPAnd outflow from 6.825 to -3.370 percentage of GDP, thereafter it showing the positive and displays moving upward direction.

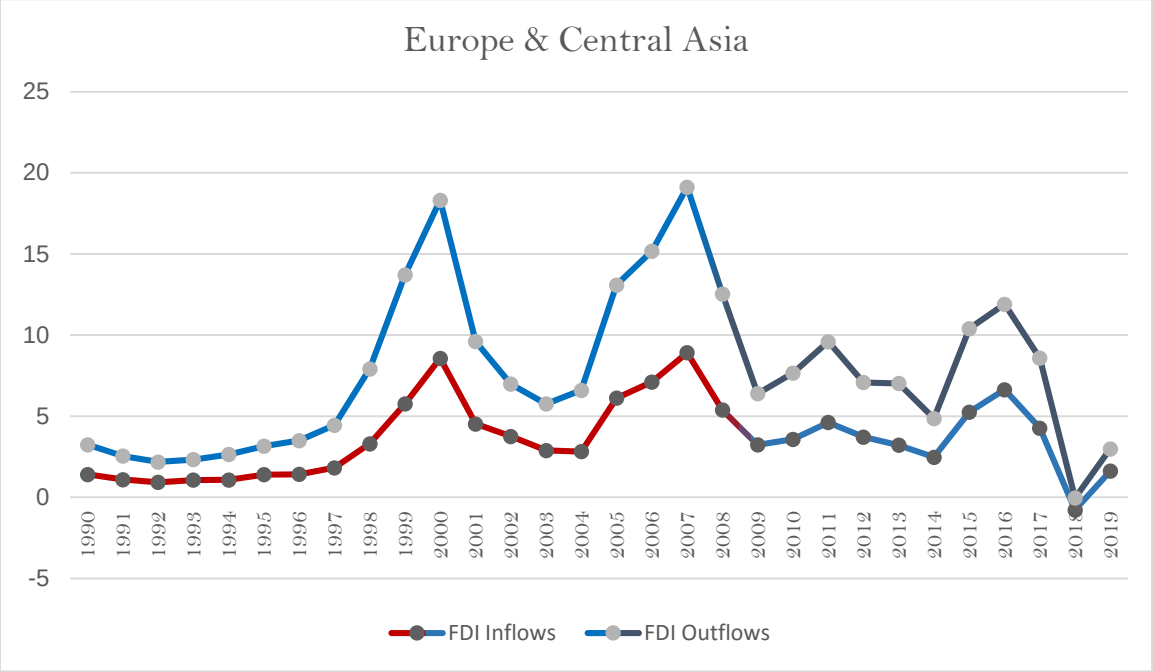
Figure 2



Source: Authors Compilation

Figure 2 from the above chart shows the graphical representation for regions of FDI Inflow and Outflow for East Asia and Pacific. Over the period from 1990 till 2019. Initially it was noted to be a decrease in the trend later in the year 1991 onwards shows to be an increasing trend inflow from 0.510 percentage of GDP and outflow from 1.139 percentage of GDP after that it starts rolling back to positive direction till it reaches to 2001 reaches to the peak and gradually declines down may be due to the Great recession Argentine early 2002. In the year 2007 it peaks at the highest level inflow at 3.233 percentage of GDP and outflow from 0.975 to 2.247 percentage of GDP and declines rapidly soon after the Great Global recession in the U.S based which affected the stock market and the whole economy. At the end it shows to be a declining i.e. in 2019.

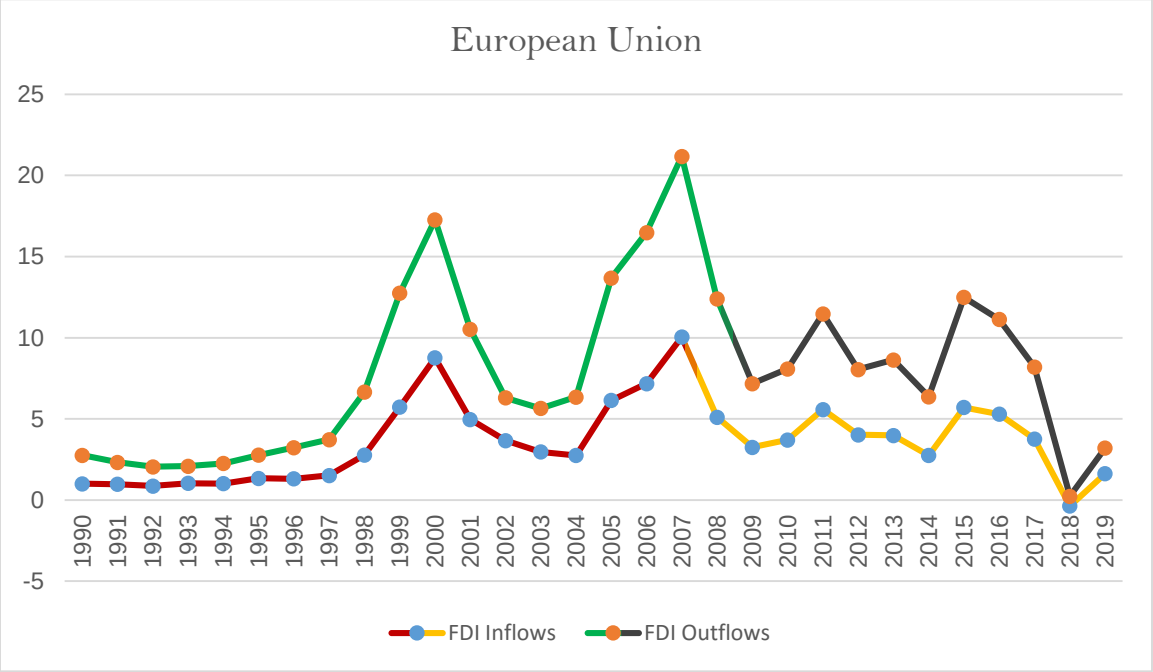
Figure 3



Source: Authors Compilation

The above graphical representation shows in the **Figure 3** for regions of FDI Inflows and Outflows for the period starting from 1990 to 2019 i.e. for 29 years, both FDI inflow and outflow registers to be an increasing trend over the period since 1990 over the previous year from 1997 it peaks up and reaches to the peak in 2000 i.e. FDI inflow at 8.569 percentage of GDP and outflow rises from 2.620 to 9.741 percentage of GDP and declines till 2004 may be due to the Great depression caused in early 2002. Again it peaks up to the highest peak point and decreases suddenly due to the Global economic recession in the year 2007-2008. After noting both inflow and ups and down in between in the year 2018 FDI inflow registers to be negative i.e. -0.781 percentage of GDP and outflow at 0.744 percentage of GDP from then onward both inwards and outwards rolls back to the positive direction.

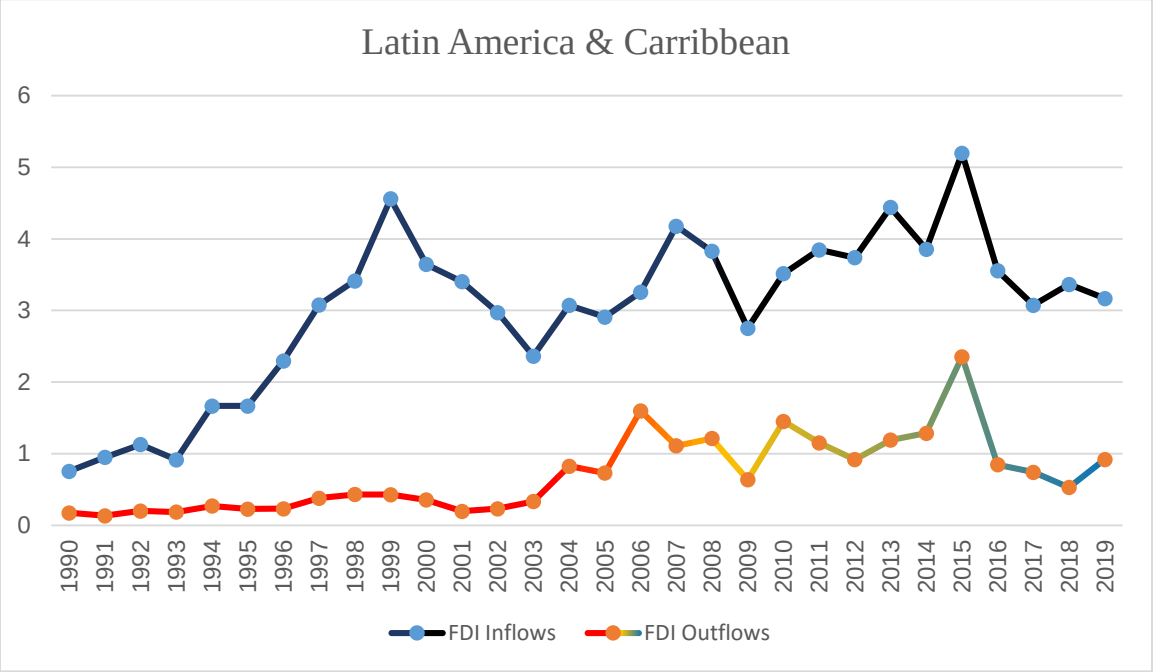
Figure 4



Source: Authors Compilation

Above **Figure 4** displays the Graphical representation of regional FDI Inflows and Outflows of European Union which extracted from World Bank for the period 1990 to 2019 i.e.29 years. Since its start from m1990 both FDI inflow and outflow were seen to be rising position certainly in 1997 FDI inflow at 1.513 percentage of GDP and outflow i.e.2.210 percentage of GDP increases to FDI inflow i.e.8.758 and outflow i.e.8.515 percentage of GDP but gradually together drops down after that till 2003 it can be due to the Great Argentine recession. The huge peak for FDI outflow from 3.598 to 11.131 percentage of GDP and inflow i.e.10.043 percentage of GDP as observed but it declines due to Global recession in U.S. based economy. The ups and down both for FDI inflow and outflow it is noted to be very low FDI outflow in the year 2018 i.e.0.598 percentage of GDP and negative trend was seen for inward ie.-0.363 percentage of GDP, but after that it rolls back to the positive direction at the end of 2019.

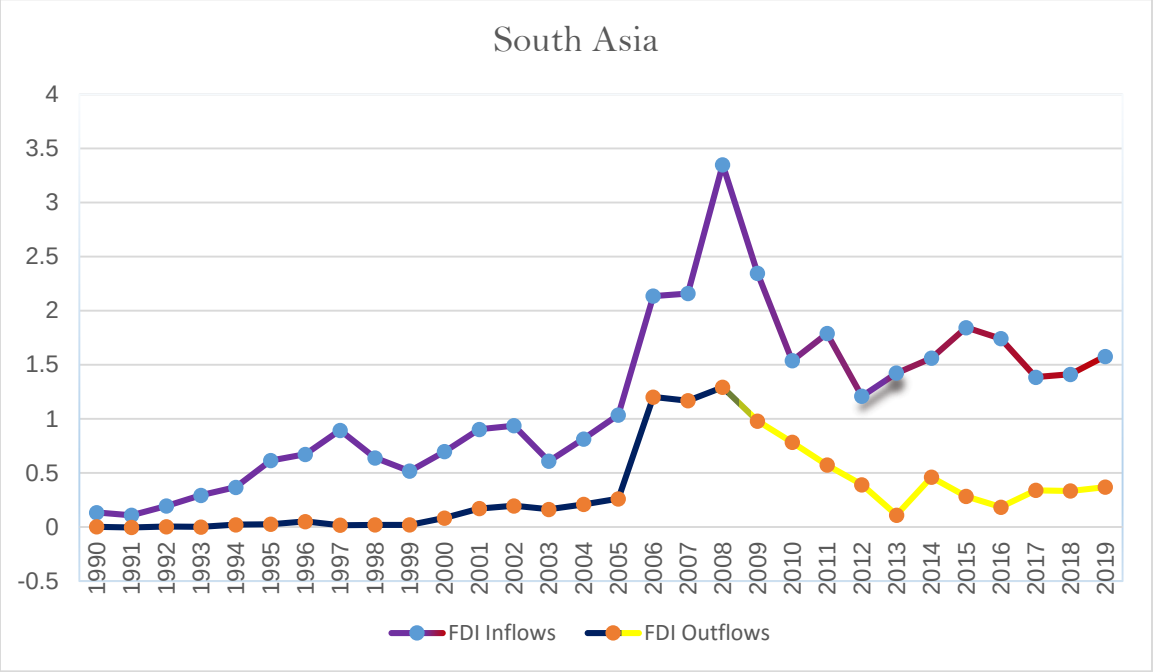
Figure 5



Source: Authors Compilation

Figure 5 shows the depiction of the regional FDI Inflow and Outflow for Latin America & Carribbean for the period 1990 to 2019 collected from World Bank for 29 years. The FDI outflows was moving at one pace since 1990 till 1996 i.e.0.231 but slowly it moves up gradually declines in the year 2001 at 0.196 may be due to Argentine crises. On the other side the FDI inflows increases seems to be successful in attracting inwards gradually it peaks in the year 1998 i.e.4.560 percentage of GDP and it slips to 2.364 percentage of GDP due to economic crises which explained earlier, but gradually it rolls back to upward reaches 4.178 percentage of GDP In 2007 also outflow rises but after the Great Global recession in the economy the FDI inflows and outflows starts declining. Considering both ups and down at the end it is noted that FDI outflow starts taking positive direction but the inflows slightly falls in the year 2019.

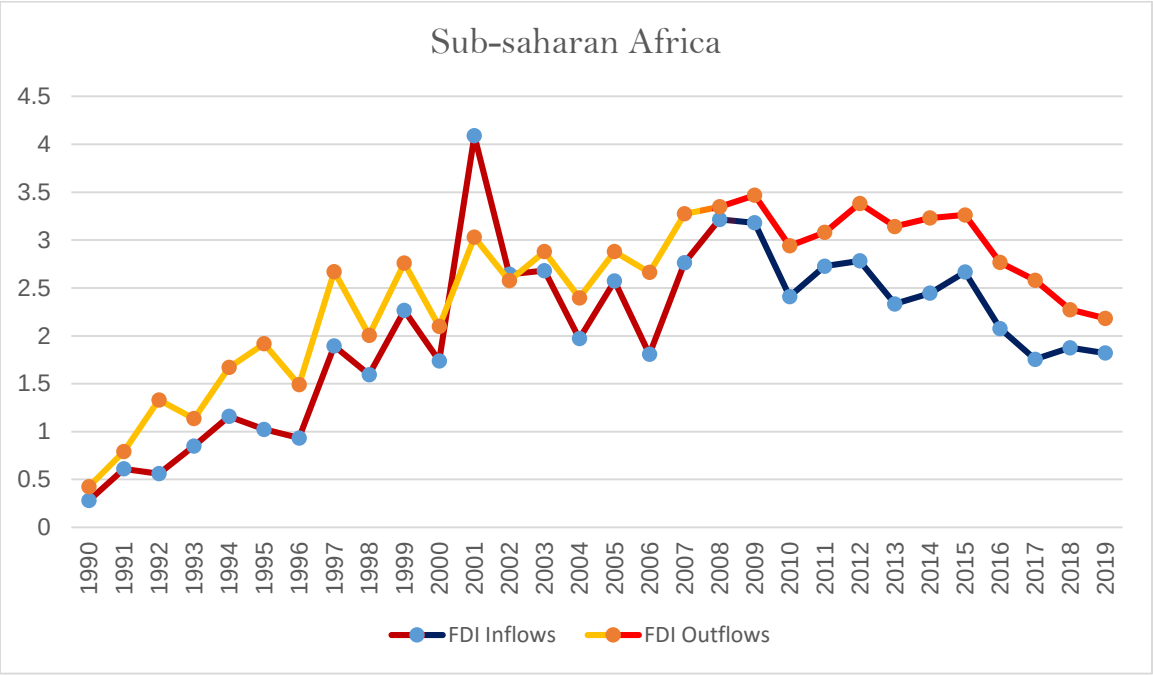
Figure 6



Source: Authors Compilation

From the above trend **Figure 6** depicts the representation of regional FDI Inflow and Outflow for South Asia 1990 till 2019 which is collected from World Bank i.e. for 29 years. Over the previous year starting from 1990 till 2000 it moves steadily at one pace after that that it slowly starts moving positive direction but in 2005 i.e. for 0.261 percentage of GDP, than in 2008 takes a sudden jump reaches its peak position at 1.291 percentage of GDP and declines heavily till it reaches to 2013 i.e.0.109 percentage of GDP due to the global recession in the economy. Similarly, the FDI inflows moves up over a previous since its start i.e. 0.133 to 0.894 percentage of GDP in 1997 and comes down in 1999 at 0.516 percentage of GDP may due to depression Argentine crises. Sudden spike from 2013 till it reaches to its peak i.e. in the year 2008 for 3.349 percentage of GDP and declines rapidly due to stock market crises in U.S based which explained earlier. But FDI inflow was seen to be moving upward direction in the year 2019 can be assumed it is successful in attracting the FDI inwards.

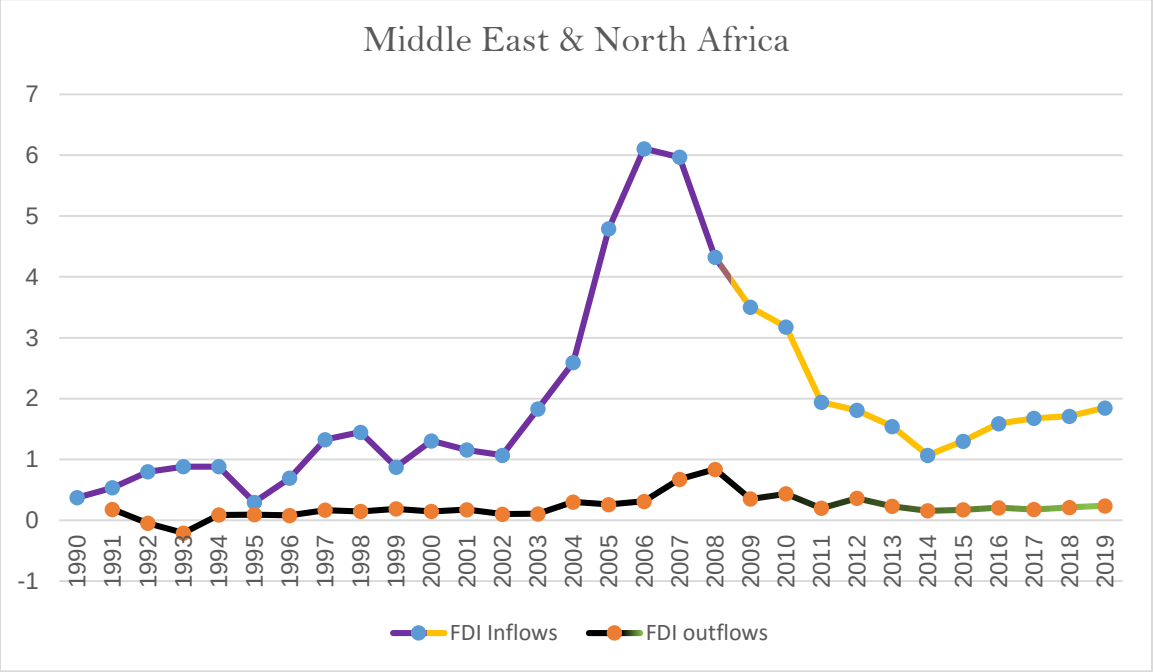
Figure 7



Source: Authors Compilation

From the above **Figure 7** starting from 1990 till 2019 shows the representation of regional FDI Inflows and Outflows for Sub - Saharan Africa for the data collected from World Bank. It is noted that both FDI inflow and outflow seen to be moving upward direction considering in between ups and down between them, also in early 2002 there was recession Great Argentine, FDI inflow seen to be huge spike in the year 2001 i.e.4.090 percentage of GDP. After 2007 the FDI inflow and outflow was rising and peaks in 2008 inflow at 0.130 percentage of GDP and outflows at 3.215 percentage of GDP but gradually drops to due to world global economic recession in 2007 - 2008 which caused huge loss to the entire world.by seeing in between ups and down ultimately positivity can be seen at the end of the period i.e. in 2019.

Figure 8

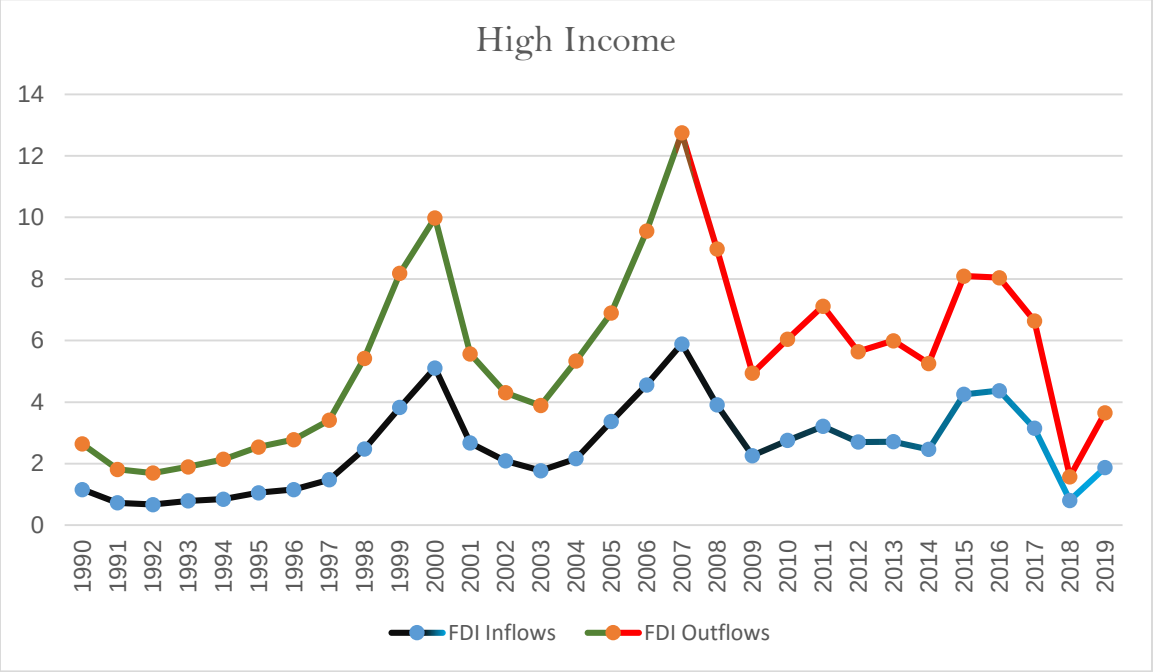


Source: Authors Compilation

The above **Figure 8** displays the Graphical representation of regional FDI Inflows and Outflows of Middle East & North Africa for the period 1990 to 2019 i.e. for 29 years. FDI inflows registers a positivity till 1995 after that in 1995 it declines i.e.0.093 percentage of GDP and on the hand it has notes a negative sign in FDI outflows in the year 1993 i.e.-0.209 percentage of GDP and thereafter it maintains at one pace steadily till 2006 than it rises and takes a peak position which is highest compare to other period and drops suddenly this is due to Global economic crises based in U.S, and then maintains same pace till end of the year. FDI inflows decrease in the year 2002 i.e.1.069 percentage of GDP may be due to the Great Argentine recession, than starts increasing heavily and reaches in peak position which is highest compare to other period i.e. in 2005 at 6.105 percentage of GDP due to recession in the Global economic market in 2007-2008 which affected the whole world, till 2014 i.e.1.068 percentage of GDP drop was seen thereafter positive successive rate of attracting inwards can be observed.

Trends and patterns of FDI Inflows and Outflows according to the Income Groups are as follows:

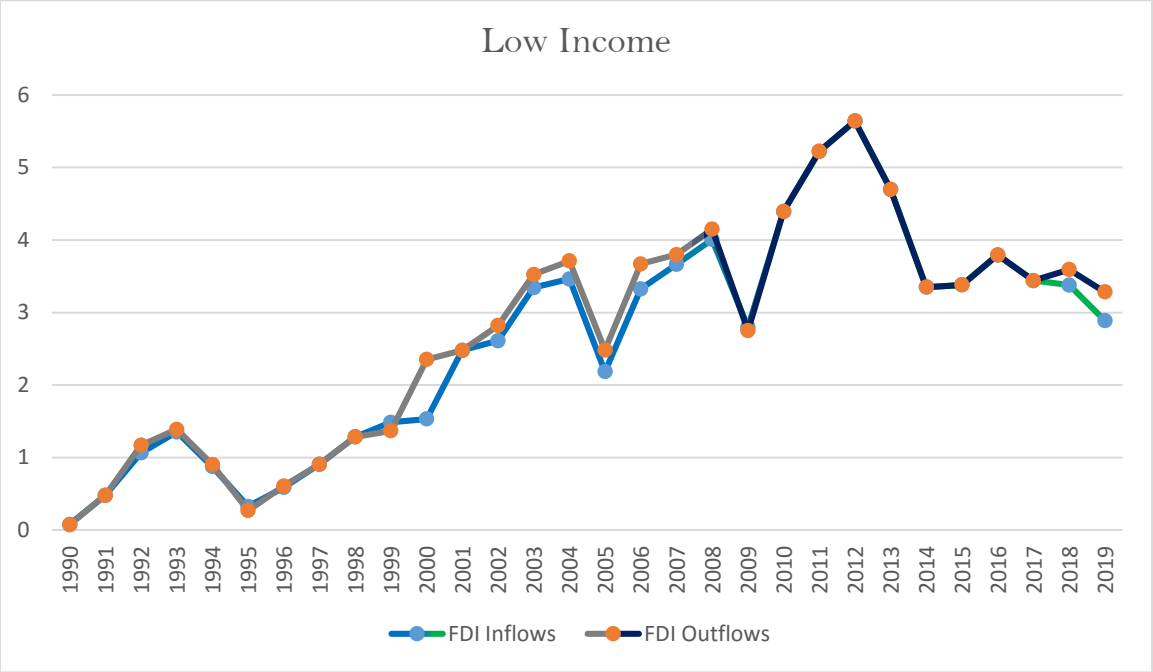
Figure 1



Source: Authors Compilation

The **Figure 1** depicts the graphical representation of FDI Inflow and Outflow income level for the period between 1990to 2019 for high income group. FDI inflow and outflow both registering upward movement steadily and sudden peak in 2000 i.e. inflow from 1.162 to 5.108 percentage of GDP and outflow i.e.1.478 to 4.879 percentage of GDP in 2000, sudden drop can be seen may be due to the depression caused due to Great Argentine in early 2000. Further, it reaches to its peak which is highest compare to other period for inflow i.e.5.890 percentage of GDP as well as outflow at i.e.6.858 percentage of GDP in the year 2007 but it is noted as rapid downfall after 22007 may be due to the U.S based recession which was worse than World War II that has caused huge loss to the country. After 2009 it registers moving up and down in between but overall jumps, at the end it can be seen as positive sign of moving upward movement and it registers a small spike at the end for FDI inflow i.e.1.874 and outflow i.e.1.781 percentage of GDP in 2019.

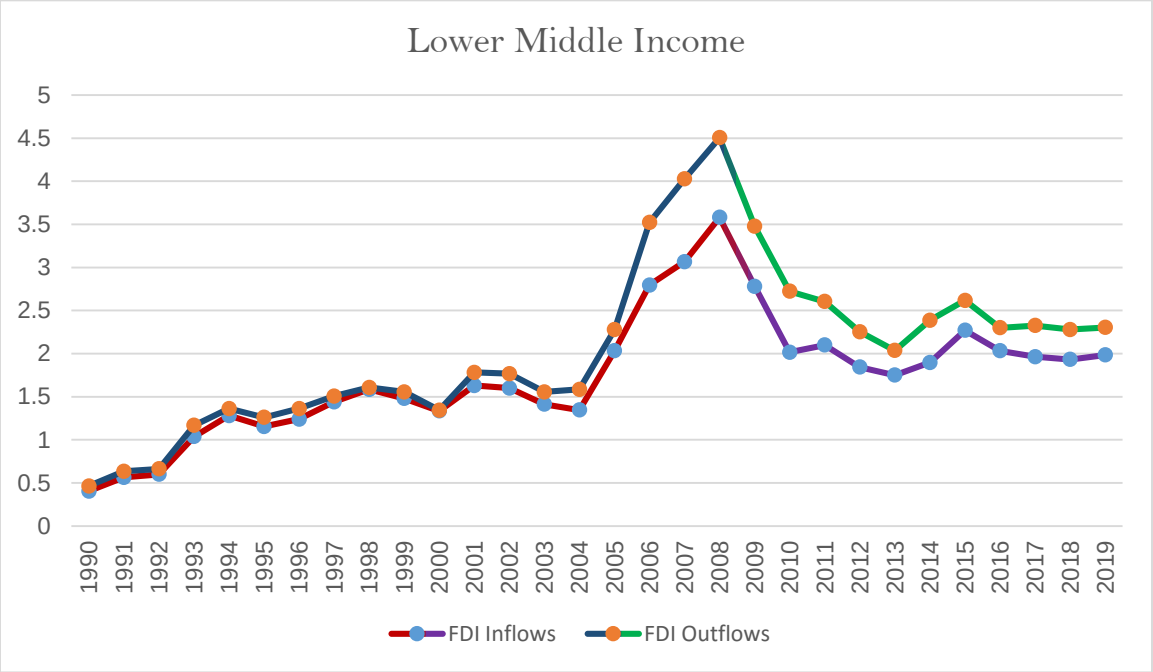
Figure 2



Source: Authors Compilation

The above charts **Figure 2** displays a trend of FDI Inflow and Outflow based on income level for Low income level for the period registering 1990 to 2019 i.e. for 29 years. The low income level can observed over a previous year till 1993 in moving upward direction i.e. inflow at 0.077 to 1.352 percentage of GDP and outflow from -0.004 to 0.034 percentage of GDP and sudden fall in 1995 but heavily moving upward direction considering ups and down in between them and can be observed, also a slight decline in the year 2005 may be due to the depression caused in early 2002 has affected the income level of Low income. After that it takes positive direction but again due to U.S crises affects and FDI inflows falls i.e.2.798 percentage of GDP. The FDI outflow registers in reaching in peak position in the year i.e.5.641 percentage of GDP, in 2019 registers a slight decline both the FDI inflow as well as outflows.

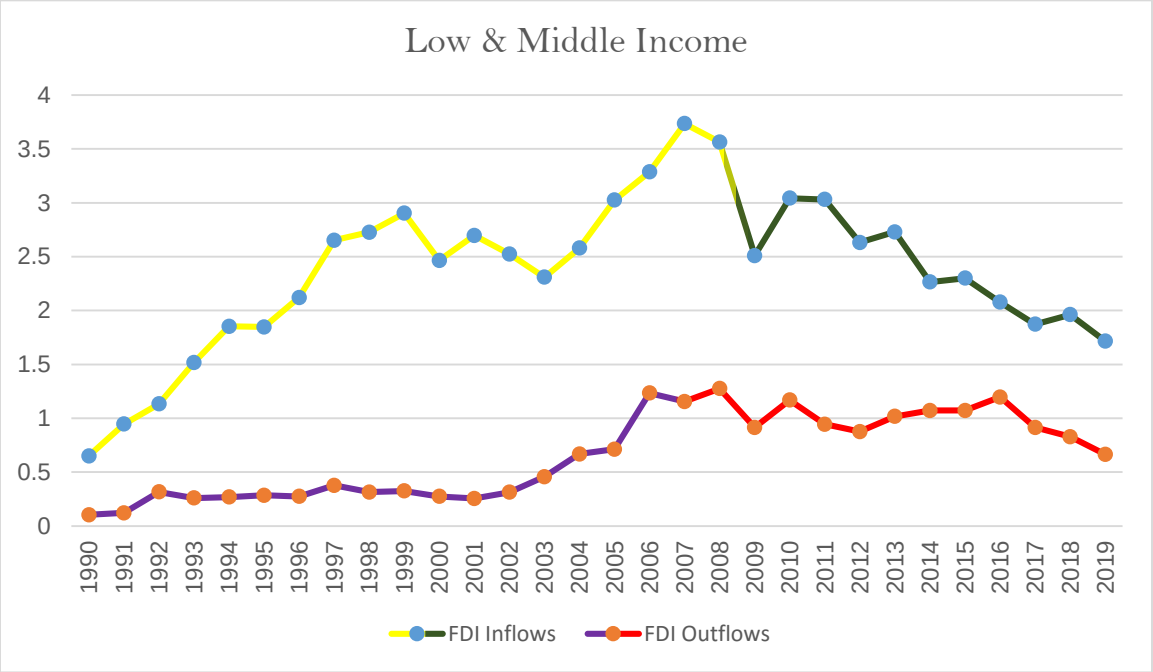
Figure 3



Source: Authors Compilation

Depiction of **Figure 3** gives the graphical representation of FDI Inflow and Outflow for income level of Lower Middle Income level for the year starting from 1990 to 2019. Over the previous year it is observed for FDI inflows and outflows were positively till 1999, but in 2000 a slight fall can be seen. After that a sudden decline in the year 2004 for FDIO inflow i.e.1.346 percentage of GDP and outflows i.e.0.239 percentage of GDP may be reason can be a recession of Great Argentine crises in early 2000 -2002. The huge spike can be observed in the year 2008 i.e. for inflows at 3.580 and outflows at 4.7248 percentage of GDP and sudden decline rapidly is been observed after world economic crises in U.S based. But overall at the end positivity can be seen.

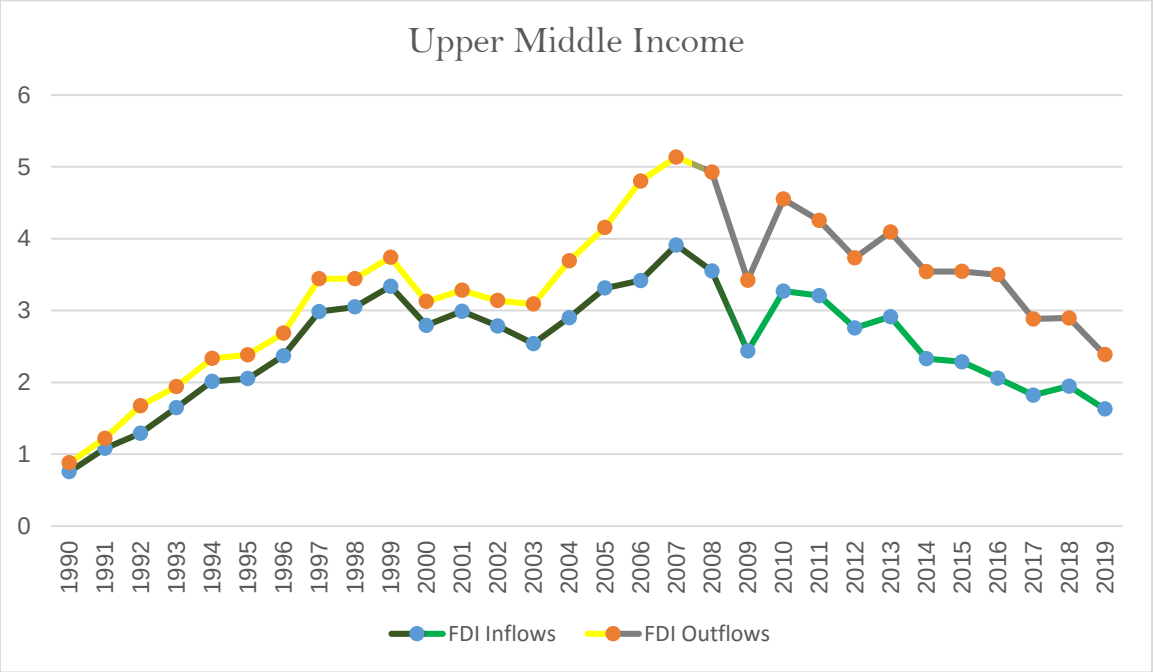
Figure 4



Source: Authors Compilation

The above **Figure 4** shows the graphical representation collected from World Bank for the 29 years i.e. from 1990 to 2019 of the FDI Inflows and Outflows of income level for Low and Middle Income level. The FDI inflows successful in attracting inflows since 1990 it is seen to be moving trend till 1999 considering in between ups and down but a slightly rolls down in 2000 i.e.2.465 percentage of GDP may be due to the recession caused by Great Argentine crises. On the other hand, the FDI outflows moves steadily at one pace till 2000 and decreases slightly due to the depression caused in early 2000 which explained earlier. After 2002, both FDI inflow and outflow shows positivity rise position where inflows reaches to the peak point at 3.734 percentage of GDP in 2007 and outflow i.e.1.249 percentage of GDP in 2008. After the U.S based depression which hardly hits the overall stock market for which the prices of the valuable assets decreases, after the recession both the inflow and outflow rolls back and seen to be decline after reaching end in 2019 inflow i.e.1.716 percentage of GDP and outflow i.e.0.665 percentage of GDP.

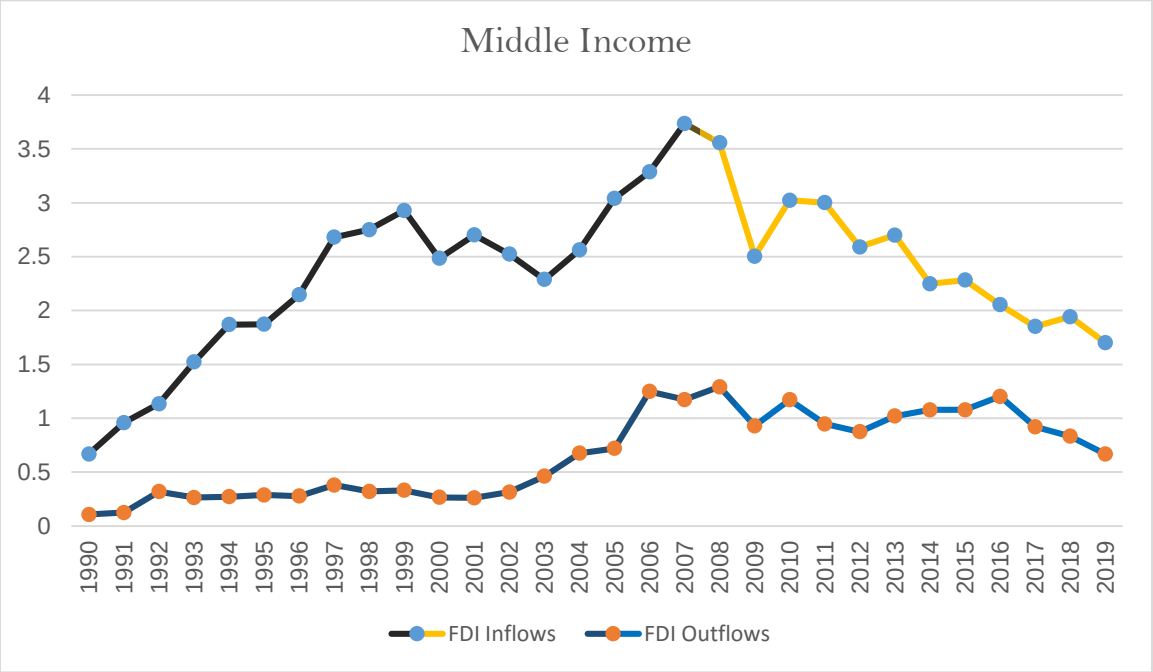
Figure 5



Source: Authors Compilation

Figure 5 from the above chart shows the analysis of FDI Inflows and Outflows of income level for Upper Middle Income level for the period between1990 to 2019 collected from World Bank for 29 years. The above representation seen to be moving positively upward direction since its start in 1990 inflow i.e.0.755 percentage of GDP and outflow i.e.0.123 percentage of GDP, reaches its peak in 1999 inflow for 3.336 and outflow at 0.402 percentage of GDP. The sudden decline in the year 2003 inflow i.e.2.540 percentage of GDP and outflow at 0.549 percentage of GDP it can be due to depression caused Great Argentine in early 2002. The FDI outflow reaches its peak in 2007 and also the FDI inflows successful in attracting inwards which also reaches in its peak. But due to the U.S based recession in stock market which hits the Upper Middle Income level for which in 2019 it declines heavily outflows ie.0.985 percentage of GDP and inflows i.e.2.435 percentage of GDP, after this depression it starts rolling up slowly but at the end it can be observed a slight decline in its position in 2019.

Figure 6

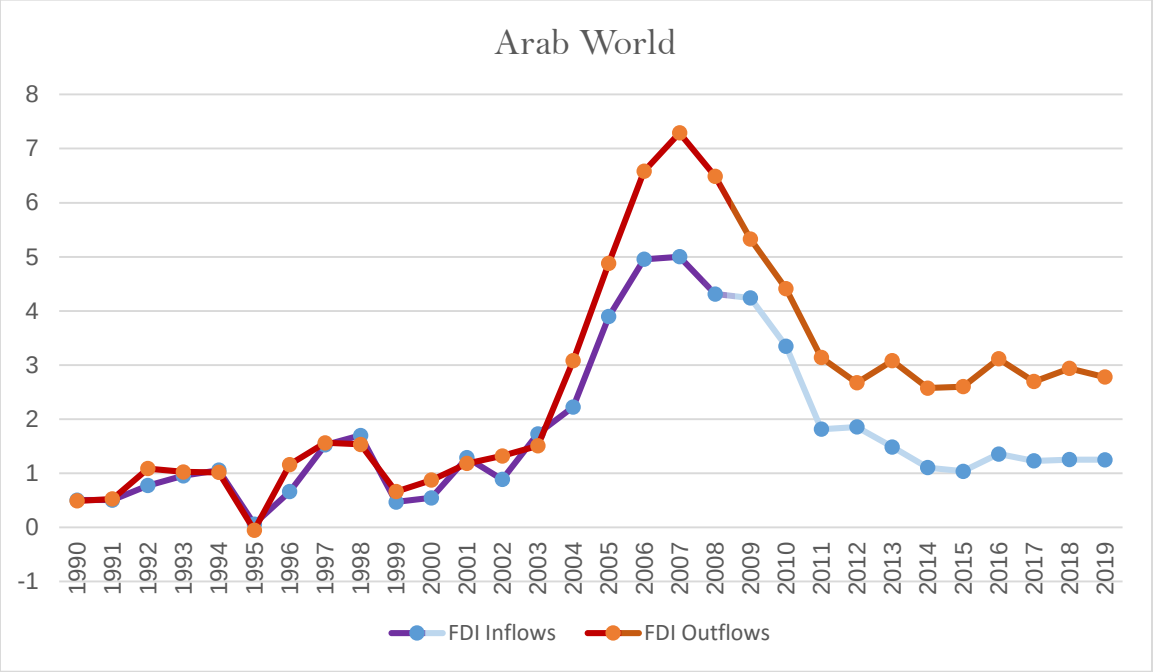


Source: Authors Compilation

The graphical representation of **Figure 6** displays the FDI Inflow and Outflow based on income level for the period starting from 1990 to 2019 for the middle income group. Over the previous year FDI inflows shows a rising trend till 1999 in its peak i.e.2.928 percentage of GDP where as FDI outflows was at one pace growing steadily considering slight ups and down in between. But after 1999 i.e.in 2000 both FDI inflow and outflow starts declining slightly may be because of recession in early 2002. After the economic crises FDI inflow and outflow starts peaking its speed to move positive direction till 2008 i.e. inflow reaches to the highest peak level compare to other period i.e.3.735 percentage of GDP and outflow too reaches highest point i.e. at 1.291 percentage of GDP and starts diminishing due to world economic crises which affected almost all countries in the world recession was U.S based. The FDI inflows starts moving downward steadily like a steps till it reaches to the end i.e.2019 at 1.701 percentage of GDP and FDI outflows too decreases at 0.668 percentage of GDP.

Trends and pattern of FDI Inflows and Outflows according to the World are as follows:

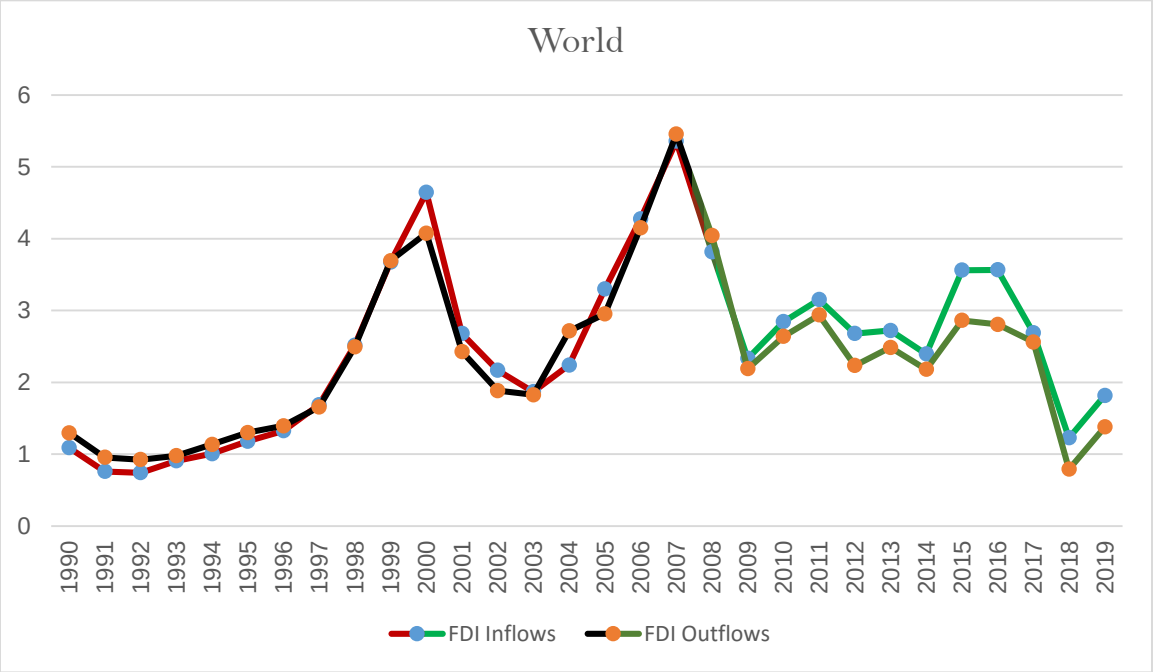
Figure 1



Source: Authors Compilation

From the above representation of **Figure 1** shows the FDI Inflows and Outflows of World for the 1990 to 2019 i.e. for 29 years for Arab World. From the period starting 1990 both FDI Inflow and Outflow were at same position i.e.0.053 percentage of GDP. Later, in 1995 the inflows comes down registering to negative i.e.0.113 percentage of GDP, thereafter inflows and outflows starts increasing and then declines in the year 1999 i.e. inflow at 0.466 and outflow for 0.194 percentage of GDP this is due to stock market recession. Soon after Great Argentine crises the inflow and outflow starts peaking rapidly and reaches to its peak point in the year 2007i.e. inflow at 5.001 percentage of GDP and outflow from 0.222 to 2.290 percentage of GDP and rolls back to downward till 2011 inflow for 1.814 percentage of GDP and outflow from 2.290 to 1.314 percentage of GDP due to the world economic crises in U.S. which affected the entire economy and also the markets valuable assets, thereafter, both FDI inflows and outflows starts moving upward slowly.

Figure 2



Source: Authors Compilation

Figure 2 from the above representation chart shows the FDI Inflows and Outflows of the world for the period starting from 1990 to 2019. The depiction from the trends tells that FDI inflow and outflow both together moving positively upward direction heavily and reaches to its peak in the decade i.e. FDI inflow at 4.643 percentage of GDP and outflow i.e.4.075 percentage of GDP and then it starts going downward till 2003, because may be due to the Great economic Argentine crises. Suddenly it takes upward rise in the trend after the depression in the economy in early 2000, reaches to its highest peak compare to other year i.e. in the year 2007 for FDI inflow at 4.275 percentage of GDP and outflow for 4.151 percentage of GDP, but gradually starts declining soon after the U.S economic crises IN 2007-2008 which affected the whole market of the stock which was very worse than World War II. Both inflows and outflows in between ups and down after 2018 it was showing positivity of reviving to rise in upward movement.

Chapter 5: Determinants of FDI Inflows to Asian Developing Nations

5.1 Introduction

This studies the second objective, "to identify the factors that determines the FDI Inflows to Asian developing nations. It evaluates and detects the determinants of FDI Inflows to Asian developing nations. There are around fifteen independent variables or factors under this analyses, out of which some factors are significant impact on the flow of FDI Inflows in selecting Asian developing nations. Significant variables mainly express to the extent to which variables have impact on the FDI to Asian developing nations.

5.2 Research Methodology Applied for the Analyses:

To analyse the determinants of FDI Inflows to Asian developing nations, the period covers from 2000 till 2019 i.e. for 19 years. The secondary data is been used for all the variables which is annual data. The sample size is 10 Asian developing nations is been chosen on the bases of availability of data. This data is been used to analyse the statistical techniques such as Descriptive Statistics, which is applied to understand the Measures of central Tendency, i.e. Mean Minimum Value, Maximum Value, and Measures of Dispersion such as Standard Deviation (SD), the Coefficient of Variation (CV), Correlational analyses is used to evaluate the relationship between FDI Inflows and its independent variables. Im-pesran shin unit root and Fisher type unit root test is used to test the staionarity of the significance level, Fixed and Random Effect Model, Ordinary Least Square and Driscoll Kraay is also used in the study which evaluates and the utilized data of panel modelling (Multiple regression) explained in chapter 3. Stata software is used for the study.

5.3 Empirical Analyses and Discussions of FDI Inflows to Developing Nations:

Table 5.1 Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
fdi	200	4.12108	6.247059	-2.75744	28.59812
GDP_g	200	5.410497	2.964458	-5.416413	14.52564
Inf	200	3.926195	3.695835	-1.35	24.997
IQ	200	-0.0053164	0.7735304	-1.180258	1.934225
FD_index	200	0.4822849	0.2445439	0.0386601	0.8946206
KO	200	0.484177	0.3410493	0	1
GC_exp	200	2.313288	0.4416158	0	3.008275
Gross_debt	200	3.916263	0.7826435	0	5.47034
REER	200	4.546357	2.793783	0.2228845	9.563595
TO	200	4.18957	0.8597295	0	6.08068
Commodity p-s	200	4.696918	0.3717966	4.022685	5.2066
Liquidity	200	4.348875	0.2889797	3.866768	4.800524
Global_gro-h	200	2.915342	1.343283	-1.673641	4.408401
SP_500	200	5.599	17.21551	-38.49	29.6
VIX	200	19.663	6.989439	11.04	40

Sources: Authors compilation

Based on the above table 4.1 presents the descriptive statistics of all the variables having range 200 observation and variables for the data of 10 developing Asian developing nations used in this chapter.

- Table 5.1 displays the performance of FDI Inflows through descriptive statistics, which further reflects that the mean value of FDI Inflows of the Asian developing nation is 4.12108 and the standard deviation is 6.247059. The minimum value of FDI Inflow is -2.75744 and the maximum value of FDI Inflow is 28.59812.
- In the above table it shows the performance of GDP growth rate through descriptive statistics, which further reflects that the mean value of GDP growth rate of the Asian developing nation is 5.410497 and the standard deviation is 2.964458. The minimum value of FDI Inflow is -5.416413 and the maximum value of FDI Inflow is 14.52564.
- From the above table it shows the performance of Inflation through descriptive statistics, which further reflects that the mean value of Inflation of the Asian developing nation is 3.926195 and the standard deviation is 3.695835. The minimum value of FDI Inflow is -1.35 and the maximum value of FDI Inflow is 24.997.
- From the above table it shows the performance of Institutional Quality through descriptive statistics, which further reflects that the mean value of Institutional Quality of the Asian developing nation -0.0053164 and the standard deviation is 0.7735304. The minimum value of FDI Inflow is -1.180258 and the maximum value of FDI Inflow is 1.934225.
- From the above table it shows the performance of Index of Financial Development through descriptive statistics, which further reflects that the mean value of Index of Financial Development of the Asian developing nation is 0.4822849 and the standard deviation is 0.2445439. The minimum value of FDI Inflow is 0.0386601 and the maximum value of FDI Inflow is 0.8946206.

- In the above table it shows the performance of Capital Openness Index through descriptive statistics, which further reflects that the mean value of Capital Openness Index of the Asian developing nation is 0.484177 and the standard deviation is0 .3410493. The minimum value of FDI Inflow is 0 and the maximum value of FDI Inflow is 1.
- In the above table it shows the performance of General Government Final Consumption through descriptive statistics, which further reflects that the mean value of General Government Final Consumption of the Asian developing nation is 2.313288 and the standard deviation is 0.4416158. The minimum value of FDI Inflow is 0 and the maximum value of FDI Inflow is 3.008275.
- From the above data we can conclude that the performance of Gross Debt through descriptive statistics, which further reflects that the mean value of Gross Debt of the Asian developing nation is 3.916263 and the standard deviation is 0.7826435. The minimum value of FDI Inflow is 0 and the maximum value of FDI Inflow is 5.47034.
- Based on the above table we can conclude that the performance of Real Effective Exchange Rate through descriptive statistics, which further reflects that the mean value of Real Effective Exchange Rate of the Asian developing nation is 4.546357 and the standard deviation is 2.793783. The minimum value of FDI Inflow is 0.5145161 and the maximum value of FDI Inflow is 9.563595.
- From the above data we can conclude that the performance of Trade Openness through descriptive statistics, which further reflects that the mean value of Trade Openness of the Asian developing nation is 4.18957 and the standard deviation is 0.8597295. The minimum value of FDI Inflow is 0 and the maximum value of FDI Inflow is 6.08068.

- From the above data we can conclude that the performance of Commodity prices through descriptive statistics, which further reflects that the mean value of Commodity prices of the Asian developing nation is 4.696918 and the standard deviation is 0.3717966. The minimum value of FDI Inflow is 4.022685 and the maximum value of FDI Inflow is 5.2066.
- From the above data we can conclude that the performance of Liquidity through descriptive statistics, which further reflects that the mean value of Liquidity of the Asian developing nation is 4.348875 and the standard deviation is 0.2889797. The minimum value of FDI Inflow is 3.866768 and the maximum value of FDI Inflow is 4.800524
- From the above data we can conclude that the performance of Global Growth Rate through descriptive statistics, which further reflects that the mean value of Global Growth Rate of the Asian developing nation is 2.915342 and the standard deviation is 1.343283. The minimum value of FDI Inflow is -1.673641 and the maximum value of FDI Inflow is 4.408401.
- From the above data we can conclude that the performance of Global Returns S&P 500 Index through descriptive statistics, which further reflects that the mean value of Global Returns S&P 500 Index of the Asian developing nation is 5.599 and the standard deviation is 17.21551. The minimum value of FDI Inflow is -38.49 and the maximum value of FDI Inflow is 29.6.
- Table 51 displays the performance of Global Volatility Index through descriptive statistics, which further reflects that the mean value of Global Volatility Index of the Asian developing nation is 19.663 and the standard deviation is 6.989439. The minimum value of FDI Inflow is 11.04 and the maximum value of FDI Inflow is 40.

5.2 Stationary Test

Variables	I'm-Pesaran-Shin unit root test		Fisher-type unit root test	
	Z-t-tilde-bar Statistics	P-Value	Inverse chi-squared-P Statistics	P-value
fdi	-2.1855	0.144	28.7613*	0.0926
GDP_g	-5.9671***	0.0000	45.3735***	0.0010
Inf	-4.5156***	0.0000	20.6625	0.4172
IQ	-3.4912***	0.0000	10.2518	0.9634
FD_index	-1.0895	0.1380	14.4172	0.8087
KO	N/A	N/A	10.2518	0.9634
GC_exp	-0.3942	0.3467	3.9643	1.0000
Gross_debt	-13.2255***	0.0000	30.0103*	0.069
REER	0.4708	0.6811	22.3476	0.3219
TO	-0.1953	0.4226	25.7428	0.1745

Sources: Authors compilation

Data used in the analysis of the unit root from both the test were found to be a Non – stationary at level, which was required to be taken at first difference to change it to stationary.

Diagnostics Test

Variables	Im-Pesaran-Shin unit root test		Fisher-type unit root test	
	Z-t-tilde-bar Statistics	P-Value	Inverse chi-squared-P Statistics	P-value
Δ fdi	-12.1681***	0.0000	74.1221***	0.0000
Δ GDP_g	-10.0276***	0.0000	93.5221***	0.0000
Δ Inf	-12.5172***	0.0000	62.4162***	0.0000
Δ IQ	-24.5344***	0.0000	68.6691***	0.0000
Δ FD_index	-9.0884***	0.0000	74.4593***	0.0000
Δ KO	N/A	N/A	68.6691***	0.0000
Δ GC_exp	-6.5309***	0.0000	17.3578***	0.0000
Δ Gross_debt	-7.0398***	0.0000	31.1875*	0.0528
Δ REER	-6.0731***	0.0000	36.0836**	0.0050
Δ TO	-7.3980***	0.0000	30.5815*	0.0010

Sources: Authors compilation

We apply two widely used test for the purposes of checking stationary in our series of explanation.

1. I-m Pesaran-shin unit root test
   - HO: All panels contains unit roots
     H1: some panels are stationary
2. Fisher- type unit root test
   - HO : All panels contains unit roots
     H1: some panels are stationary

A) For the variable FDI, both the stationary test confirm the presence of stationarity at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

B) For the variable GDP growth rate, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

C) For the variable Inflation, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

D) For the variable Institutional quality, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

E) For the variable financial development index, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

F) For the variable Capital openness, Fisher -type unit root stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

G) For the variable General Government Final Consumption, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

H) For the variable Gross debt, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level in IPS and 10% level at FT. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

I) For the variable Real Effective Exchange Rate, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of stationary confirmed by both the test at 1% level in IPS and 5% level at FT. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

J) For the variable Trade Openness, both the stationary test confirm the presence of stationary at level. We also test the stationary at its first level difference, we get a significant result of

stationary confirmed by both the test at 1% level in IPS and 10% level at FT. Hence we conclude that series is integrated of at the most order I (1) but not order I (2).

Pairwise Correlation Analysis

The correlation of variables is the relationship between each variables included the dependent variable and independent variable that being analysis in the study.

Table 5.3 Correlation matrix

Variables	fdi	GDP_g	Inf	IQ	FD_index	KO	GC_exp	Gross debt	REER	TO
fdi	**1.0**									
GDP_g	**0.0237****	**1.00**								
Inf	**0.0086*****	**0.0381****	**1.00**							
IQ	**0.0000*****	**0.0000*****	**0.0000*****	**1.00**						
FD_index	**0.1147**	**0.0000*****	**0.0000*****	**0.0000*****	**1.00**					
KO	**0.000*****	**0.0000*****	**0.0000*****	**0.0000*****	**0.0000*****	**1.00**				
GC_exp	**0.0319****	**0.0001*****	**0.0000*****	**0.0000*****	**0.0000*****	**0.0443****	**1.00**			
Gross_debt	**0.0696****	**0.0000*****	**0.0235****	**0.0000*****	**0.0000*****	**0.0000*****	**0.0000*****	**1.00**		
REER	**0.0000*****	**0.5830**	**0.0004*****	**0.0000*****	**0.0000*****	**0.3141**	**0.0000*****	**0.0001*****	**1.00**	
TO	**0.0000*****	**0.0132****	**0.0143****	**0.0000*****	**0.0081*****	**0.0000*****	**0.8768**	**0.6363**	**0.0000*****	**1.00**

The above table 5.3 shows the results of the unconditional correlation matrix, we find after analysing the following data:

- The FDI variable is positively correlated with the host country economic growth, we find that an insignificant coefficient of correlation between the FDI and financial development index (0.1147), and GDP growth rate (0.0237), Government Final Consumption (0.0319) and Gross debt (0.0696) is statistically significantly correlated at 5% level. Here, the inflation (0.0086) Institutional quality (0.0000), Capital openness (0.000), Real effective exchange rate (0.0000) and Trade openness is highly significantly correlated with 1% level.
- The relation between GDP and the other variables is positively correlated, we find that an insignificant coefficient of correlation between the GDP and Real effective exchange rate (0.5830).And the inflation (0.0381) and Trade Openness (0.0132) are at 5% level of significantly correlated variables and the remaining variables are statistically highly correlation with 1% significance level i.e. Institutional Quality (0.0000),Financial Development (0.0000), Capital Openness(0.0000) and General Government Final Consumption (0.0001) and last is Gross debt.
- From the above we can conclude relation between Inflation and the other variables are positively correlated but statistically insignificant between Inflation and Institutional Quality Gross debt (0.0235) and Trade openness (0.0143) are positively correlated and significant with 5% level. And the Institutional Quality (0.0000), Financial Development (0.0000), Capital Openness (0.0000) and General Government Final Consumption (0.0000) and Real effective exchange rate (0.0004) are statistically highly correlation with 1% significance level.

- Here is the unique in which all the variables are at 1% level of significant and are highly correlated between Institutional Quality and other variables which are Financial Development (0.0000), Capital Openness (0.0000), General Government Final Consumption (0.0000), Gross debt (0.0000), Real effective exchange rate (0.0000), Trade Openness (0.0000).
- The relation between Financial development index and the variables like Capital Openness (0.0000), General Government Final Consumption (0.0000), Gross debt (0.0000), Real effective exchange rate (0.0000), Trade Openness (0.0081) are at 1% level of significant and are highly correlated between them.
- From the above table shows the only exception between Real effective exchange rate (0.3141) is positively correlated but it is insignificant. And the only exception between Capital openness and General Government Final Consumption (0.0443) which is at 5% level of significant and correlated between them, the remaining variables Gross debt (0.0000) and Trade openness (0.0000) which are at 1% level of significant and are highly correlated between them.
- From the above table the only exception between General Government Final Consumption and Trade openness (0.8768) Gross debt (0.0000) and Real Effective Exchange Rate (0.0000 which are the highly with 1% significance level and positively correlated between them.
- The only exception variable between Gross debt (0.6363) which is positively insignificant between them. And Real Effective Exchange Rate (0.0001) is the second exception which is the highly with 1% significance level and positively correlated between them.

- The only exception between Real Effective Exchange Rate and Trade Openness (0.0000) which is highly positively correlated and highly significant variable with 1% level of significance among them.

Pooled Ordinary Least Square Data

Table 5.4 Pooled OLS Data showing Determinants if FDI Inflows to Asian Developing Nations

VARIABLES	(1) 1	(2) 2
GDP_g	0.3966***	0.4388***
	(0.0991)	(0.1097)
Inf	0.0491	0.0653
	(0.0780)	(0.0849)
IQ	3.2942***	3.9427***
	(1.0867)	(1.0660)
FD_index	-12.3852***	-14.0971***
	(3.0009)	(2.9379)
KO	8.0498***	7.8315***
	(1.3337)	(1.2921)
GC_exp	-1.9361**	-1.6921**
	(0.8139)	(0.7926)
Gross_debt	-0.1299	-0.3641
	(0.4081)	(0.4026)
REER	-0.8189***	-0.8356***
	(0.1168)	(0.1133)
TO	2.5479***	2.4527***
	(0.3942)	(0.3886)
Comodity_prices		-0.2589
		(0.9999)
Liquidity		3.2576***
		(1.2276)
Global_growth		-0.0743
		(0.2283)
SP_500		0.0127
		(0.0270)
VIX		0.0038
		(0.0701)
Constant	1.9118	-9.4992*
	(3.3618)	(5.1742)
Observations	200	200
R-squared	0.7397	0.764

Sources: Authors compilation

Dependent variable: FDI Inflows

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- The above table 5.4in the column (1) shows the results one of the Panel data regression model i.e. Pooled OLS data model, which reflects the value of R^2 as 0.7397 which can be interpreted as 73.97% of the total variation in FDI Inflows of Asian Developing Nations is due to the market size GDP growth rate, Inflation, Institutional Quality, Financial Development Index, Capital openness, General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness. Whereas, 26.03% is due to the other factors from the above sample size (n+ 10 nations, t = 19 years, no of observations = 200) is an adequate to study the independent variable under this analysis.

Hence, the Beta values expressed in the FDI Inflows are positively and highly significantly related to independent variables.

GDP Growth Rate (0.3966) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries GDP, FDI increase by 0.3966 percentage points,

Institutional Quality (3.2942) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Institutional Quality , FDI increase by (3.2942) percentage points.

Capital Openness (8.0498) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Capital Openness, FDI increase by (8.0498) percentage points and

Trade Openness (2.5479) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Capital Openness, FDI increase by (2.5479) percentage points.

Financial Development index (-12.3852) has a negative effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Financial Development index, FDI reduce by (-12.3852) percentage points,

General Government Final Consumption (-1.9361), Real Exchange Rate (-0.8189) are negatively and significant independent variables at 1% level. However, Inflation (0.0491) are positive effect of FDI but it is statistically insignificant at percentage points. But and Gross debt (-0.1299) negative effect of FDI but it is statistically insignificant.

Hence, the regression equation

FDI Inflows (Y) = 0.3966 GDP_g + 0.0491 Inf + 3.2942 IQ - 12.3852 FD_index + 8.0498 ko -1.9361 GC_exp -0.1299 Gross_debt +-0.8189 REER + 2.5479 TO

- From the above table 5.4 in the column (2) shows the results one of the Panel data regression model i.e. Pooled OLS data model, which reflects the value of R^2 as 0.764which implies that 76.4% of the total variation in FDI Inflows of Asian Developing Nations is due to the market size GDP growth rate, Inflation, Institutional Quality, Financial Development Index, Capital openness, General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness, Commodity prices, Liquidity, Global Growth Rate, Global Returns S&P 500 Index and Global Volatility Index whereas, 23.63% is due to the other factors from the above sample size (n = 10 nations, t = 19 years, no of observations = 200) is an adequate to study the independent variable under this analysis.

Hence, the Beta values expressed in the FDI Inflows are positively and highly significantly related to independent variables.

GDP Growth Rate (0.4388) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries GDP, FDI increase by 0.4388percentage points.

Institutional Quality (3.9427) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Institutional Quality , FDI increase by (3.9427) percentage points.

Capital Openness (7.8315) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Capital Openness, FDI increase by (7.8315) percentage points.

Trade Openness (2.4527) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Capital Openness, FDI increase by (2.4527) percentage points.

Liquidity (3.2576) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Capital Openness, FDI increase by (3.2576) percentage points.

Financial Development index (-14.0971) has a negative effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Financial Development index, FDI reduce by (-14.0971) percentage points. The

only exception of General Government Final Consumption (1.6921) has a negative effect of FDI at 5% level of significance and the

Remaining variables i.e. Inflation (0.0653), Global Returns S&P 500 Index (0.0127), Global Volatility Index (0.0038) are positive effect of FDI but it is statistically insignificant at percentage points. However, Gross debt (-0.3641), Commodity prices (-0.2589), Global growth rate (-0.0743) variables which are negative effect of FDI but it is statistically insignificant.

Hence, the regression equation

FDI Inflows (Y) = 0.4388 GDP_g + 0.0653 Inf + 3.9427 IQ -14.0971 FD_index + 7.8315 KO -1.6921 GC_exp -0.3641 Gross_debt -0.8356 REER + 2.4527 TO -0.2589 Comodity_prices + 3.2576 Liquidity -0.0743 Global_growth + 0.0127 SP_500 + 0.0038 VIX

Fixed & Random effect model:

Table 5.5 showing the determinants of FDI Inflows to Asian developing nations

VARIABLES	(1) FEM	(2) REM	(3) FEM	(4) REM
GDP_g	0.2699***	0.3966***	0.1839*	0.4388***
	(0.0891)	(0.0991)	(0.0999)	(0.1097)
Inf	0.0781	0.0491	0.0622	0.0653
	(0.0661)	(0.0780)	(0.0706)	(0.0849)
IQ	4.7724***	3.2942***	2.8439*	3.9427***
	(1.6636)	(1.0867)	(1.6042)	(1.0660)
FD_index	-4.6186	-12.3852***	-16.0352***	-14.0971***
	(4.0226)	(3.0009)	(4.4427)	(2.9379)
KO	6.1442***	8.0498***	4.0627***	7.8315***
	(1.3666)	(1.3337)	(1.3640)	(1.2921)
GC_exp	1.2576	-1.9361**	0.3405	-1.6921**
	(1.1991)	(0.8139)	(1.1482)	(0.7926)
Gross_debt	-0.3538	-0.1299	-0.9118**	-0.3641
	(0.3788)	(0.4081)	(0.3679)	(0.4026)
REER	-1.9107	-0.8189***	-4.7071***	-0.8356***
	(1.2646)	(0.1168)	(1.4670)	(0.1133)
TO	-1.2980	2.5479***	-0.6291	2.4527***
	(0.9606)	(0.3942)	(0.9732)	(0.3886)
Comodity_prices			0.4023	-0.2589
			(0.8421)	(0.9999)
Liquidity			3.6945***	3.2576***
			(1.2874)	(1.2276)
Global_growth			0.1121	-0.0743
			(0.1690)	(0.2283)
SP_500			0.0020	0.0127
			(0.0192)	(0.0270)
VIX			-0.0324	0.0038
			(0.0494)	(0.0701)
Constant	14.2330**	1.9118	17.8244**	-9.4992*
	(7.2032)	(3.3618)	(7.4091)	(5.1742)
Observations	200	200	200	200
R-squared	0.1573		0.293	
Number of groups	10	10	10	10
Hausman Test		349.14***		220.95***
P- Value		0.0000		0.000

Sources: Authors compilation

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

From the above table 5.5 in Column (1) we find from the panel data regression model i.e. using Fixed effect model which can be seen as the value of $R^2 = 0.1573$ which is written as 15.73%, of the variation in FDI Inflows of Asian developing nations which is because of market size GDP growth rate, Inflation, Institutional Quality, Financial Development Index, Capital openness, General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness. Whereas, 84.27% is due to the other factors from the above sample size (n + 10 nations, t = 19 years, no of observations = 200) is an adequate to study the independent variable under this analysis.

Hence, the regression equation

FDI Inflows (Y) = 0.2699 GDP_g + 0.0781 Inf 4.7724 IQ - 4.6186FD_index + 6.1442 ko + 1.2576 GC_exp -0.3538 Gross_debt -1.9107 REER -1.2980 TO

The above of FEM suggests following below:

- We find the market size of the country which is GDP growth rate which positively associated with FDI Inflows, for every 1 percentage increase in GDP growth rate, FDI Inflows of Asian rise by (0.2699) at 1% significant level.
- Likewise, Institutional quality (4.7724), Capital openness (6.1442) suggests that it is significant at 1% level which are positively related with FDI Inflows, for every 1 percentage increase in GDP growth rate, FDI Inflows of Asian rise by Institutional quality (4.7724), Capital openness (6.1442).
- By above data we find the market size of the country which is Inflation and General Government Final Consumption, which positively associated with FDI Inflows, for every 1 percentage increase in Inflation, FDI Inflows of Asian rise by Inflation (0.0781), General Government Final Consumption (1.2576).
- The results from the above analysis of data we find that the market size of the country i.e. Financial development index is negatively associated with FDI Inflows, for every 1 percentage points decrease, FDI Inflows reduces by (-4.6186). Likewise, Gross debt Real

effective exchange rate and Trade openness index is negatively associated with FDI Inflows, for every 1 percentage points decrease, FDI Inflows reduces by (-0.3538), (-1.9107), (-1.2980).

From the above table 5.5 in the column (3) shows the results one of the Panel data regression model i.e. Pooled OLS data model, which reflects the value of R^2 as 0.293 which implies that 29.3%% of the total variation in FDI Inflows of Asian Developing Nations is due to the market size GDP growth rate, Inflation, Institutional Quality, Financial Development Index, Capital openness, General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness, Commodity prices, Liquidity, Global Growth Rate, Global Returns S&P 500 Index and Global Volatility Index whereas, 70.7% is due to the other factors from the above sample size (n = for 10 nations, t = 19 years, no of observations = 200) is an adequate to study the independent variable under this analysis.

Hence, the regression equation

FDI Inflows (Y) = 0.1839 GDP_g + 0.0622 Inf + 2.8439 IQ -16.0352 FD_index + 4.0627 KO + 0.3405 GC_exp - 0.9118 Gross_debt - 4.7071REER - 0.6291 TO + 0.4023 Comodity_prices + 3.6945 Liquidity + 0.1121Global_growth + 0.0020 SP_500 - 0.0324 VIX

- We find the market size of the country which is Capital openness and Liquidity which are positively associated with FDI Inflows, for every 1 percentage increase in Capital openness, FDI Inflows of Asian rise by (4.0627) and (3.6945) at 1% significant level.
- .Likewise, Financial development index, Real Effective Exchange Rate are negatively associated with FDI Inflows, for every 1 percentage points decrease, FDI Inflows reduces by (-16.0352), (-4.7071) at 1% significant level.

- Gross debt are negatively associated with FDI Inflows, for every 1 percentage points decrease, FDI Inflows reduces by (-0.9118) at 5% level of significance and GDP growth rate and Institutional quality which are positively associated with FDI Inflows, for every 1 percentage increase in Gross debt and Institutional quality, FDI Inflows of Asian rise by (0.1839) and (2.8439) 10% significant level. And the remaining variables i.e. Inflation (0.0622), General Government Final Consumption (0.3405), Commodity prices (0.4023), Global growth (0.1121), Global Returns S&P 500 Index (0.0020) are positively related with FDI inflows insignificance level.
- Trade openness and Global Volatility Index are negatively associated with FDI Inflows, for every 1 percentage points decrease, FDI Inflows reduces by (-0.6291) and (-0.0324).
- Lastly, to see the effect of Fixed effect or random effect model is significant and relevant in the panel analysis, the Hausman test test is used which make the comparison models under null hypothesis.

  Above tables concludes, under the Chi – square or p – value is, column (2) 349.14 and column (4) 220.95 which are at 1% level of significance, it implies that null hypothesis is rejected and alternate hypothesis is accepted therefore, we can say that Random model is not appropriate . Thus, it can be concluded that fixed effect model is more relevant and appropriate than random effect model.

From the above table shows the Random effect model from the panel data of column (2) and (4) which variations of FDI Inflows of Asian developing countries. These are expressed for column (2) as, GDP growth rate, Institutional quality, Capital openness, and Trade openness are at 1% level of significance since the p – value is less than 0.01 but it is related to positive at 1%. Also

financial development index, General consumption, Real effective exchange rate, are negatively related but statistically at 1% significant level. And remaining Inflation, is positively related but it is insignificant level.

Also, column (4), we can conclude that GDP growth rate, GDP growth rate, Institutional quality, Capital openness, and Trade openness, Liquidity are at 1% level of significance since the p – value is less than 0.01 but it is related to positive at 1%. Financial development index, Real effective exchange rate, are negatively related but statistically at 1% significant level and General consumption at 5% significance. Remaining inflation, S&P 500 Index, Global Volatility Index are positively related and Gross debt, Commodity prices, Global growth, are negatively related but statistically insignificance.

5.6 Driscoll Kraay

VARIABLES	(1) 1	(2) 2
GDP_g	0.3966***	0.1839
	(0.0770)	(0.1213)
Inf	0.0491	0.0622
	(0.0626)	(0.0925)
IQ	3.2942***	2.8339**
	(0.6853)	(1.1224)
FD_index	-12.3852***	-16.0352*
	(3.1008)	(7.9317)
KO	8.0498***	4.0627**
	(0.9947)	(1.7056)
GC_exp	-1.9361***	0.3405
	(0.5888)	(1.0335)
Gross_debt	-0.1299	-0.9118**
	(0.2827)	(0.3460)
REER	-0.8189***	-4.7071
	(0.0928)	(2.2284)
TO	2.5479***	-0.6291
	(0.2789)	(1.1297)
Comodity_prices		0.4023
		(0.9220)
Liquidity		3.6945*
		(1.9261)
Global_growth		0.1121
		(0.1230)
SP_500		0.0020
		(0.0099)
VIX		-0.0324
		(0.0280)
Constant	1.9118	17.8244*
	(2.2039)	(9.7450)
Observations	200	200
R-squared	0.7397	
Number of groups	10	10

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- In the above table 5.6 in the column (1) shows the results one of the Panel data regression model i.e. XTSCC, which reflects the value of R^2 as 0.7397 which can be interpreted as 73.97% of the total variation in FDI Inflows of Asian Developing Nations is due to the market size GDP growth rate, Inflation, Institutional Quality, Financial Development Index, Capital openness, General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness. Whereas, 26.03% is due to the other factors from the above sample size (n= =for10 nations, t = 19 years, no of observations = 200) under this analytical study.
- GDP Growth Rate (0.3966) and Institutional Quality (3.2942) has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries GDP, FDI increase by (0.3966), (3.2942) percentage points.
- Capital Openness (8.0498) and Trade Openness (2.5479 has a positive effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Capital Openness, FDI increase by (8.0498), (2.5479) percentage points and
- Financial Development index (-12.3852) has a negative effect of FDI Inflow at 1% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Financial Development index, FDI reduce by (-12.3852) percentage points,
- General Government Final Consumption (-1.9361), Real Exchange Rate (-0.8189) are negatively and significant independent variables at 1% level. However, Inflation (0.0491) are positive effect of FDI but it is statistically insignificant at percentage points. But and Gross debt (-0.1299) negative effect of FDI but it is statistically insignificant.

And from the column (2) of the above table we can find the following data) shows the results one of the Panel data regression model, from the above sample size (n = for 10 nations, t = 19 years, no of observations = 200) is a adequate to study the independent variable under this analysis.

- Institutional Quality, Capital openness, has a positive effect of FDI Inflow at 5% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Institutional quality, Capital openness, FDI increase by (2.8439), (4.0627) percentage points.
- Gross debt and Real effective exchange rate has a negative effect of FDI Inflow at 5% level of significance, the coefficient value suggest that a for every 1 percentage decrease in countries Gross debt and Real effective exchange rate, FDI reduces by (-0.9118), (-4.7071) percentage points.
- Liquidity has a positive effect of FDI Inflow at 10% level of significance, the coefficient value suggest that a for every 1 percentage increase in countries Liquidity FDI increase by (3.6945) percentage points.
- Financial development index has a negative effect of FDI Inflow at 10% level of significance, the coefficient value suggest that a for every 1 percentage decrease in countries Financial development index ate, FDI reduces by (-16.0352) percentage points.
- GDP growth rate, Inflation, General consumption, commodity prices, Global growth, Global Returns S&P 500 Index has a positive effect of FDI Inflow statistically insignificant, the coefficient value suggest that a for every 1 percentage increase in countries GDP growth rate, Inflation, General consumption, commodity prices, Global growth, Global Returns S&P 500 Index FDI increase by (0.1839), (0.0622), 0.3405), (0.4023), (0.1121), (0.0020), percentage points.

- Trade openness, Global Volatility Index has a negative effect of FDI Inflow at 5% level of significance, the coefficient value suggest that a for every 1 percentage decrease in countries Trade openness, Global Volatility Index, FDI reduces by ((-0.6291), (-0.0324) percentage points.

Chapter 6: Findings and Conclusion

6.1: Findings

This study explores the trends of FDI inflows and outflows in Asian Developing Nations which covers the period 1990 to 2019. The graphical representation have been shown in the form of line graph. With regard to performance, FDI inflows and outflows for period 1990 till 2019 shows an increasing trend with few ups and down in between in which china was the highest with around 6.188 percentage of GDP from 10 developing nations. The pre-recession period i.e. before 2007 was absolutely increasing trend, may be due to the Argentine Great recession crises in early 2000 it is noticed to be slight decrease in the trends in which Cambodia and Indonesia heavily affected which registered to be a negative trend, but overall it has bought a positive returns to the developing nations. During the post-recession from 2008 till 2019 due to the financial crises of 2007-08 U.S. based subprime mortgage crises, again FDI inflows and outflows decreased, but slowly it was peaking up with few ups and down in between.

The determinants of FDI inflows has been studied for the 10 Asian developing Nations covering the period from 2000 till 2019. Panel data modelling i.e. Pooled Ordinary Least Square, Fixed Effect Model, Random Effect Model and Driscoll Kraay are used to find the determinants of FDI inflows to Asian developing nations. FDI inflows are positively significantly related told Growth Rate, Inflation, Institutional Quality, Capital Openness, Trade openness, Liquidity. Whereas it is significantly negatively related variables such as Financial Development Index, General Government Consumption, Gross Debt, Real Effective Exchange Rate.

6.2: Conclusion

The study finds the performances of FDI inflows and outflows of Asian Developing Nations for the period covering 29 years from 1990 till 2019. The performance is explained showing the various trends. This analyses also determines the factors affecting the flow of FDI inflows for the period covering 19 years from 2000 to 2019.

The finds that the flow of FDI inflows and outflows shows an increasing trends with few ups and down in between during 1998 to 2002 may be due to the Great Argentine Crises early 2000s. Stock market crash again in 2007-08 due to the Great financial recession U.S. based subprime mortgage crises. Further, the study found that GDP growth rate, Inflation, Institutional Quality, Capital openness, , Commodity prices, Liquidity, Global Growth Rate, Global Returns S&P 500 Index and Global Volatility Index have a positive impact on FDI inflows whereas General Government Final Consumption, Gross Debt, Real Effective Exchange Rate and Trade Openness have negative impact on FDI inflows of Asian developing nations.

To conclude, economy is measured by GDP development of the infrastructural facilities, availability of abundant natural resources and less corruption are the main determinants which helps in pull as well as push the Foreign Direct Investment. Thus, developing economic nations should concreate themselves in strengthening the GDP, develop good infrastructure, exploiting of natural resources, less corruption, reserves should be increased to stabilize the government so that it helps in improving the FDI inflows which in turn the economic growth of the Asian developing nations.

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