

# Theory of comparative advantage economics essay

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There are a lot of theories standing behind the FDI flows. The existence of FDI is often explained by the concept of comparative advantage based on differences in labour productivities.

### **Theory of comparative advantage**

Adam Smith claimed that countries can gain by focusing on production of goods in which it has an absolute advantage. David Ricardo managed to prove that an absolute advantage is not necessary for specialization of production to be beneficial. Due to the comparative advantage it can be beneficial to trade even with the least developed countries. Heckscher and Ohlin also contributed significantly to the theory of international trade which is closely related to the FDI theory. Their model basically says that each country should produce goods whose production is intensive in factors the country is abundantly endowed with.

### **The neoclassical model**

The neoclassical macro-level international trade and international capital market theories assume perfectly competitive markets. As a result of such perfectly competitive markets, international specialization leads to gains from international trade. The Marshallian variant of neoclassical theory is also relevant to FDI. The relevance is practical: cost-benefit analysis on particular projects is conducted to evaluate the projects in question (Akrami, 2008). The neo-classical approach states that, due to the scarcity and relatively high cost of labor in developed countries, they tend to transfer production facilities to less developed, labor-intensive countries (Caves, 1996; Cantwell, 2000). Consequently, there is only one direction of capital flows: from advanced countries to capital-scarce countries. The Heckscher-

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Ohlin model has been widely used to explain FDI in a general equilibrium framework. The neoclassical model of international trade explained comparative advantage of countries by different capital endowments. Let us assume two countries with two factors of production – labour and capital and two products – labour intensive and capital intensive. We also assume that there is the same technology available in both countries, there is a perfect mobility of factors of production within a country, there are no transportation costs, preferences of people and products they consume are homogenous . Provided that all these assumptions hold, the difference in capital endowments causes the interest rate to be different. Higher interest rate is very attractive for foreign investors. The conclusion of this model is that the possibility of higher profit is the only incentive for foreigners to invest their money. The neoclassical approach has been criticized by researchers for its lack of realism and inability to explain FDI (Hymer, 1976; Kindleberger, 1969). In the context of transition, not only does the perfect competitive market not exist, but even the basic market institutions and tools are yet to be developed. Zerbergs (1998) investigates whether the FDI patterns can be proxied in the standard neoclassical model or in modified versions of this model that allow for differences in production technologies across countries. He argues that the standard neoclassical approach is not particularly useful to explain FDI flows in less-developed (transition) countries. However, the neoclassical assumption that capital moves from economically developed countries towards the capital-scarce countries was very important for understanding FDI incentives in transition economies (McDougall, 1960; Kemp, 1964). Capital endowments, currency risks and risk premiums gained by foreign investors also explain the interest of MNCs in many transition

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economies (Aliber, 1970). Two essential factors of business activity proposed by neoclassical FDI theory - namely global market uncertainty as a factor of risk for investors and the role of government in creating institutions - later became the foundation of empirical study of FDI in transition economies.

## **Other theories**

The modern theory of FDI goes back to Hymer (1960). He observed that domestic firms always have a certain advantage over foreign firms because they know better local environment. If foreign enterprises want to succeed in tough competition they must have some advantages over domestic firms. But this can happen only in conditions of imperfect market where not all the firms have access to the same advantages. Production cycle theory (Vernon, 1966) claims that after a new product is launched on the market it experiences four stages of its production. At first, the product is produced only by domestic firms and is demanded by domestic customers on a large scale. After some time, the product becomes old-fashioned and is rather exported to lower-income countries. Domestic firms exporting this product will not enjoy large foreign demand for their products forever. Foreign firms will have access to this technology and will be able to imitate this product and offer import-substitution for domestic customers. If the original producers want to maintain a certain market share, they have to reallocate their production to the countries where their products are still demanded. The eclectic paradigm (Dunning, 1980) – According to this theory there are three types of advantages multinational corporations can enjoy when producing abroad. The ownership advantages consist in possessing specific technology, know-how or marketing. Location advantages include market

size, transport costs or specific government policies. Finally, internalization advantages can be used if the transaction costs on the free market are higher than the internal costs.

### **3. 3. Spillovers**

Spillovers should not be omitted in any serious paper on FDI. They are quite difficult to measure but have been already recognized and described. In addition to an increase in overall level of capital, spillovers belong to the FDI benefits. Governments should focus on attracting FDI that would bring new technology, know-how and management skills. Many empirical studies confirmed that inward FDI also bring benefits to local firms[1]. Most of them tested the hypothesis that there is a positive correlation between FDI and productivity. They came to the conclusion that benefits arise from the fact that foreign firms bring new technologies and they train local workers who can be later employed by domestic producers. Furthermore, domestic companies face enhanced competition and are pushed to introduce new technologies which would not otherwise occur. Spillovers are considered the second channel through which FDI promote economic growth. The first – and also more obvious – is an increase in level of capital. We distinguish horizontal and vertical spillovers. Horizontal spillovers have impact on local competitors, whereas vertical spillovers affect mainly the suppliers of MNEs. This implies that vertical spillovers are more likely to be positive but we miss more empirical studies to confirm this hypothesis. Majority of papers is focused on effects of horizontal spillovers and the results are mixed. Generally, we can conclude that developing countries do not receive positive

spillovers from FDI. In case of more developed countries there is a positive impact to be found.

## **2. 2. 1 Market Size and Growth Potential, openness and export**

Market size and growth have proved to be one of the most important determinants of FDI (Krugell, 2005). The argument goes that FDI increases capital accumulation as well as it creates positive externalities and encourages productivity growth. Thus FDI could be an explanatory variable for GDP growth (Chowdhury and Mavrotas, 2006 , Wahid et al., 2009: 5) .

There are though good reasons to claim that the relation is bi-directional.

One can use real GDP as a determinant of FDI to measure market size which is an important factor for market-seeking FDI. MNCs choose to invest into markets with high GDP to substitute for exports. They produce final goods in the local market for the local demand. Such affiliates require high fixed costs and to make the production worthy the demand has to be big enough to bring the production costs down through economies of scale. One could argue that GDP per capita is a better measure for the demand. However in the case of the selected Sub Saharan Africa countries real GDP will be used to approximate the potential size of the market. Bende-Nabende (2002) found that market growth and market size are among the most dominant long-run determinants of FDI in SSA. An increased market size is therefore expected to attract increased levels of FDI. (Pentecost & Rascuite, 2008: 3). Bhattacharya et al. (1996), Elbadawi and Mwega (1997), Morisset (2000) and Onyeiwu and Shrestha (2004) find evidence for the importance of economic growth in attracting FDI flows

to Africa. Banga (2009) found a relationship between FDI and market size for both developed and developing countries and it is also an important determinant for the strategy of market-seeking firms. Trade openness: Several studies have established that open economies encourage the inflows of FDI. For example, studies by (Culem (1988), Edwards (1990) and Singh and Jun (1995) have show that asignificant positive relationship exists between openness and FDI inflows. Hufbauer et al., (1994) showed that openness encourages FDI but it depends on the type of investment. Easterly and Kraay (2000), also, argued that small economies do not have lower growth rates than their larger counterparts because of their openness. In the literature the openness of a country to trade is measured as the ratio of trade (exports + imports) to the country's GDP. Market size/GDP, openness and export which are market-seeking determinants of FDI have been used in previous literatures as determinants of FDI such as Kravis and Lipsey (1982), Scheinder and Frey (1985), Wheeler and Moody (1992), Tsai (1994), Lipsey (1999) and Wei (2000) using real GDP per capita as a market indicator for export which has yielded positive results. However, Loree and Guisinger (1995), Hausmann and Fernandez-Aria (2000) did not find it relevant as a determinant of FDI using the same method.

#### **2. 4. 4 Natural Resources And FDI**

Countries that are endowed with natural resources would receive more resource-seeking FDI such as oil, minerals and coal are better positioned to attract FDI. The benefits of resource-seeking FDI for developing countries are disputable. Many studies focusing on relationship between FDI and development suggest that resource-seeking FDI do not bring positive

spillovers such as creation of new jobs, technology transfers etc. But exploring this puzzle is not an issue of this paper. In the case of Sub Saharan Africa countries natural resources seem to be a crucial determinant of FDI. Not including this measure from the study especially from countries in Africa will not make it relevant (Asiedu, 2002). Literatures which also took into account natural resources as a determinant of FDI include Warner and Sachs (1999), Asiedu and Esfahani (2001) and the World development Indicators 2009. Dunning (1998) and Caves (1996) both considered the accessibility, expenditure and value of natural resources and their expansion as a major incentive for FDI in a country. Available from SSA2011: In addition African governments give incentives for investors to come and exploit their natural resources since they receive significant export tax revenue. Unfortunately, natural resources are an uncontrollable factor that cannot be changed or improved by a certain economic policy. But the evidence shows that even natural resource-poor countries managed to attract foreign investors by improving other factors such as investment environment or infrastructure. Unfortunately many studies did not add natural resources into their analysis of FDI determinants. I think inclusion of this variable is not necessary in case of regions that are generally poor in natural resources, especially oil. But a serious paper focused on African countries most of which belong to the largest producers of oil, copper, gold and other mineral resources cannot omit such variable. Asiedu (2000) pays much of her attention to this variable and she finds a very strong relationship between natural resource endowments and inflow of FDI. This observation implies that resource-rich countries can increase the amount of inward FDI by improving their investment environment. And how to actually measure natural resource

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endowments of a hostcountry? I inspired from Asiedu (2000) who used share of fuels on export as a proxy.

## **2. 4. 5 South-South Cooperation And FDI**

The South -South Cooperation (SSC) are activities between southern countries which have recently become industrialised and less developed countries in the southern part of the globe. Emerging economies also form part of the SSC including China, Brazil, India and South Africa. This is a strategic asset seeking determinant of FDI. Activities include investments, trade, transfer of technologies resolving crisis in member countries. It was created by the United Nations in the late 1970's (Schmitt, 2007). Member countries have special agreements to promote cooperation amongst them such as very low tariffs to trade amongst them. There is nevertheless a severe lack of academic studies on the SSC as a determinant of FDI. SSC help to expand market size, improve infrastructure and educational level to gain more skilled labour in the future and also help in political and social issues (Lewis, 1980; Antweiler and Trefler, 2002). This promoted FDI inflows in Southern countries to increase from 16% in 2005 to 37% in 1993 (World Bank, 2006). Creation of further smaller co operations groups resulted from this, to encourage larger amount of FDI inflows from the foreign investors, such as in Africa there is the Southern Africa Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA). This has promoted more confidence in foreign investors to invest in developing countries. The effects of trade and economic integration on levels of FDI are going to be considered jointly because they depend on each other and are difficult to separate. The two variables belong however to the different

motives of FDI. Market-seeking outsider investors hope to enter the markets with a high level of economic integration so that they can reach several economies from one country. They are not affected by the trade within the union or with a third country because as soon as they make their first horizontal investment in the union they obey the same rules as the insiders and can expand within the region. Resource-seeking outsider investors are more concerned about the outcome of economic integration. Vertical integration is based on transport costs that are low enough not to offset cheap labour costs (Sayek, 2009). Reduced trade with a third part increases trade costs of the intermediate goods and makes the foreign direct investment in the host country less worthy. Thus a host country that had recently joined a customs union will, on the one hand, experience higher market-seeking FDI inflows from the third country (outsiders), as both tariff and non-tariff barriers are reduced. Kindleberger (1969, p. 88) has described this process as "investment creation" which appears together with trade diversion inside the union. As trade barriers are reduced the inside trade in EU increases and gets more attractive for foreign investors outside the union. The idea of larger markets and economies of scale would attract newcomers as well as higher levels of FDI from already established MNCs (Blomström and Kokko, 1997). This would be an effect on market-seeking FDI. Resources-seeking outsider FDI would however be discouraged by lower levels of trade and would find it less profitable to search for sources of cheap labour. On the other hand, bigger inside market means that number of affiliates from MNCs could be reduced to maintain the Single Market. The production gets concentrated to one member country and the other countries could experience loss in outside FDI (Blomström and Kokko, 1997).

This effect (caused by trade creation) would be felt on market-seeking FDI and is called "investment diversion" by Kindleberger (1969). The size of the contrary effects is difficult to predict and depends on the structure of the inside market, outsider companies and other factors. It is most likely that the overall FDI to the union would not decrease but it would negatively affect certain countries. Finally, also intra-regional treaties can really stimulate investments. The East African Community, largely supported by the developed countries, aims to ease transportation of labor, capital and goods inside East Africa and maybe regulates monetary affairs in the future (East African Community, 2012). For investors it means a larger market and more transportation possibilities. Also the European Union is an example of a positive initiative for trade and investment and there are more examples worldwide. Cooperation generally stimulates stability and a better investment climate. Regional trade agreements (RTAs) : There are various channels through which RTAs can influence FDI, which include the nature of investment rules, trade rules and other initiatives (See for instance [14]). Investment rules govern investments in regional groupings and may apply to regional investors as well as extra-regional investors. RTAs can decrease horizontal (tariff-jumping) intra-regional FDI because it becomes cheaper to serve other economies in the region through trade rather than establishing an affiliate with production facilities and thus incurring plant-level costs. Vertically motivated regional FDI (efficiency and natural resource seeking FDI) [15] split up the production process across borders to exploit gains from comparative advantage within the firm. Here, the gains from 'outsourcing' of production stages to low-wage countries and the associated trade of intermediate goods within firms are important issues with vertical

multinational firms. Therefore, we expect vertical FDI to increase through the implementation of RTAs. This is because lower trade costs will reduce the costs of establishing international production networks across member countries. Extra-regional FDI can also be affected by RTAs in a number of ways. First, as tariffs among parties to the RTA are removed, it becomes profitable for extraregional Transnational Corporation (TNC) to serve an effectively larger market (horizontal- market-seeking FDI) from one or more locations in the region. Second, the rule of origin can affect the location decision of FDI. Non-tariff barriers also play a significant role in attracting FDI. Third, some RTAs including COMESA and SADC have cooperation schemes that aim at establishing regional enterprises by promoting joint ventures.

#### **2. 4. 6 Political Instability & Corruption And FDI**

Pajunen (2008: 654) defined political instability as " the likelihood of violent threats to, or changes in, government". Where war or another form of public violence exists and stability within the government is threatened, investors stand the chance of losing money as a result of businesses being closed. Political stability is therefore another of the methods of measuring the risk associated with a given country. Where a country is politically stable, FDI is expected to increase. FDI is a particular form of investing because it binds the investing company to the laws and politics of the host country. A good example of relatively strong rule of law has proven by Barthel (2008) in a study about Ghana, where abundant natural resources are attractive for foreign investors, and the political stability has been key to attracting sustainable investment. They attach value to market size and growth,

resources, but political environment in particular. In this study there has also been proved that small entrepreneurs attach more value at political stability and protection than large entrepreneurs like NGOs. Each company planning to invest in a host country has some negotiating power and can affect the conditions of investing. However FDI remains uncertain because MNCs are unable to prevent the political environment from changing later on (Azzimonti and Sarte 2007). The expected role of institutions is to produce public goods that otherwise would not exist (Blonigen, 2005). The World Bank (2010a) performed a study on 213 countries in which they assessed the political stability of countries allowing the countries to be rated from 0 to 100, 0 being perceived as excessively politically unstable. Corruption: Corruption is the highest constraint for foreign investors according to some scholars. The direct relationship between corruption and FDI is studied by Habib (2002) and he proved that entrepreneurs try to avoid corruption. The reasons are both ethnically and economically. Foreign investors are not used to corruption and experience it as morally wrong. Economically it creates inefficiencies. Especially if the difference in corruption between home country and host country is high, high negative effects were found. Habib (2002) also stressed the different impact of corruption depending on the size of the company. Especially small sized companies have difficulties to overcome corruption. Asiedu (2006) emphasized the role of corruption in Africa as major constraint for FDI and therefore is a determinant of FDI in Sub-Saharan Africa. Corruption, amongst others, is an indication of the risk associated with a country. A study performed by Wei (1997: 24), found clear evidence that where there is an increase in corruption, a negative impact on FDI is experienced. However, the attempted researches on the causality

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between corruption and FDI have confirmed the theory by empirical methods. Using double-log linear model Shang-Jin (2000) finds strong negative effect of corruption on bilateral FDI flows. She combines different corruption indexes to increase the reliability of the research and bases the research on 12 source countries and 45 host countries. Khamfula (2007) also found that corruption affects FDI negatively by using OLS period fixed effect regression. The countries analysed in this model were 18 largest FDI receivers in the world, mostly Asian and South American countries. The results hence are expected and prove that quantifying political environment can bring significant knowledge. Corruption is another institutional characteristic that has generated some degree of empirical controversy. Holmes et al. (2008) defines corruption as the failure of integrity in the system, a distortion by which individuals are able to gain personally at the expense of the whole. A priori, corruption impedes progress in economic and social development, and also undermines investors' confidence in an economic system. Similarly, previous researchers (such as Habib & Zurawicki, 2002 and Al-Sadig, 2009) predict that corruption scares away foreign investors because it is considered illegal, and because it leads to operational inefficiency. However, Egger and Winner (2005) theorize that corruption, acting as a helping hand, can sometimes be an incentive for inward flow of FDI. Using 73 developed and less developed countries and for the time period 1995–1999, they find a positive relationship between corruption and FDI, and conclude that corruption can indeed be a stimulus for some kinds of FDI. Political instability and corruption, which are strategic asset-seeking determinants of FDI, have an impact of FDI because political issues show a risk of investing a country which creates an environment

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discouraging FDI (Schneider and Frey, 1985). Risks of investing in a country can be analysed using the political risk rating in the International Country Risk Guide issued every year. Aseidu (2002) and Barro and Lee (1993) used the level of murders and revolutions to measure the level of political instability. Political instability and corruption can be divided into 2 categories: social factors and political factors.

## **2. 4. 7 Government Policies, Taxes & Tariffs And FDI**

Government can play a crucial role in stimulating foreign investment and is considered an efficiency-seeking determinant of FDI. For instance, increased government grants, investment tax allowances and less time taken to grant permits will be likely to increase investment. Higher corporate tax rates have an adverse effect on FDI and vice-versa approved by Kemsley (1998) and Billington (1999) but Wheeler and Mody (1992) prove tax rates and FDI do not have any relationship. It is argued that the interest rate is the most important determinant of FDI as both are inversely related as interest rate affects the actual cost of capital. This is shown in appendix 4 (Ancharaz, 2002). Exchange rates have an effect on investment decision from overseas investors as discovered by Harrison & Revenga (1995) and Elbadawi & Mwega (1997). Theoretically, a depreciation of real exchange rate will increase FDI inflows and vice-versa. It can however be contrasted than FDI's main purpose is to create and export from the home country and should not therefore worry the investors. Moreover, it can be argued that a depreciating currency increases import costs and creates a decline in foreign sales profits which are both unfavourable consequences to FDI. All these create conditions determinant to FDI.

## **2. 4. 1 Human Capital & Labour Costs And FDI**

Authors such as Root and Ahmed (1979), Schneider and Frey (1985), Lucas (1990), Borensztein et al., (1998), Noorbakhsh et al., (2001) and Aseidu (2002) all agreed that human capital and labour, which are both resource-seeking determinants of FDI, have an important role to play in the attraction of investment. Foreign investors require labour to have certain level of education, skills and health status which affects the size of FDI inflows as discussed by Zhang & Markusen (1999). This is because skilled workforce is more productive and can be trained to new technologies easier. Root and Ahmed (1979) use the level of secondary enrolment to calculate the level of FDI in human capital in their study. Coughlin and Segave (2000) study revealed that poor education level can result in low FDI. Investors usually have an overview on the education level by looking at the secondary education enrolment rate (SER) which is available from a country's Central Statistics Office in the labour sector. The cost of labour has always been a core part of the overall production cost of companies. Variation in wages has been regularly discussed in empirical literature which is a fact in labour-intensive companies where high wage demands would restrict FDI. Nevertheless, high wage demands may occur because the country is receiving high FDI. Investors will therefore also look at the nominal wage rate in a country before considering investing (Wheeler and Mody, 1992). Human capital plays an important role in the location decision of foreign investors. Usually FDI is viewed as a channel of spreading knowledge and technology into host countries which contributes economic growth positively (Varum, 2011). However, the current state of human capital in a country is a very important factor depending on the sector and investment motive. For <https://assignbuster.com/theory-of-comparative-advantage-economics-essay/>



efficiency-seeking FDI in R&D a very high quality human capital is needed, but for production plants sometimes the human capital size is more important. In that case low labor costs are often a reason to go abroad. On the other hand, a small labor market can be negative for foreign investors, because employees will ventilate more labor rights and requirements. Human capital and FDI are both drivers of economic growth, but little evidence has shown about the effect of human capital on FDI. This relationship is decisive as human capital is a determinant of FDI. Majeed (2008) argues that higher quality human capital improves the investment climate and attracts FDI. Also other scholars (Noorbaksh et al, 2001; Nunnenkamp, 2002) argued the increased importance of human capital, especially among efficiency-seeking firms (Noorbaksh, 2001). Important to note is that only recent studies have found evidence for this relationship. In the 1960s and 1970s, when FDI inflows were concentrated on market- and resource-seeking motives, no relationship was found (Majeed, 2008). This does not necessarily mean that human capital quality does not have its influence on market- and resource-seeking FDI. However, an important aspect of human capital is that there is a threshold, before the country can benefit from FDI. If companies only come to the countries to use the worst educated people for their production and pay them a paltry amount, the country will not profit from the FDI (Varum, 2011). The lack of human capital is also the reason that Sub-Saharan Africa has to import many products and services and pays more money for that than they benefit from the producing industry. The only way to develop itself is to upgrade the education. A higher educated and skilled population will attract more foreign investment and add more value to the economy of the country. Also the market will grow and will

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have a multiplier effect. However, at the moment human capital is a constraint for many investors. Only investors that are in favor of the low costs of labor will come to Africa for their business, but also this can change over time. Finally, it is also important to mention that FDI could affect human capital itself. In a panel data analysis over Chinese provinces Basu and Yao (2009) find that human capital is affected by FDI inflows. It is as well consistent with the theory because MNCs bring spillover effect to host economies in form of new technology, means of production and management. High human capital is however an important incentive for FDI producing advanced goods and is thus going to be included in the empirical model.

Labour cost: One of the highest costs in the production of goods tends to be labour. It therefore stands to reason that if a corporation has the opportunity to produce goods in a country at cheaper labour rates it would serve as motivation to invest in such a country (Pentecost & Raschke, 2008: 3). Labour costs is a major determinant for resource-seeking multinationals. Since resource seeking FDI aims at reducing production costs it is obvious that higher labour costs should affect FDI negatively. However it is a complex variable that depends on several factors. It is important to examine real labour costs because nominal wages and therefore even nominal labour costs increase when the expected inflation increases. Confusion of real and nominal terms could therefore instead capture price changes. Bellak et al (2008) make an informative review of the research on labour costs as a determinant of FDI. The majority of the papers prove labour costs to be negatively significant on FDI while others find the variable to have a positive effect. The explanation given for the positive effect of labour costs on FDI is either flawed data or underlying factors that affect labour costs. Golub

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(1995) discusses labour costs and uses similar analysis. This has been confirmed through empirical studies performed. Increased flexibility in the labour market results in improved FDI inflows (Javorcik & Spatareanu in Pajunen, 2008: 654) and for this reason considered an applicable determinant to compare. Wang and Swain (1995) concluded that low cost labor is an important factor for FDI inflow. They stressed that not the quality of human capital matters, but the labor costs. Cheap labor can be a resource in resource-seeking FDI. This is not only the case for developing countries, also developed countries with high labor costs have more and more difficulties to attract FDI, largely depending on the motive of foreign direct investment. Labor costs is the main reason for many multinational companies to replace their production plants in low labor countries in Asia. Also in Africa this reason plays a major role in almost every investment on the continent. of the people.

## **2. 4. 2 Infrastructure And FDI**

Saggi (2002) suggested that developing countries require a good level of infrastructural facilities (. i. e. resource-seeking determinant of FDI) to be able to attract vast amount of FDI. Road and rail networks, information and telecommunication, harbour, airport, power, gas and water supply all form part of the infrastructure in a country which are available for households, public services and private companies. Aschauer (1988) suggests that investment on infrastructure and FDI are complementary. Nations which devote a large proportion of their gross national product (GNP) to infrastructure enjoys a high level of FDI inflows. To measure the level of infrastructure, one should take into consideration both the availability and

reliability of the latter. Infrastructure is not of much use if it is not reliable, for instance, quality of the phone lines, internet connection or water supply. Availability to foreign investors is also a key factor, for example, will there be internet connection or accessible roads to the location of the company as discussed by Asiedu (2002). To analyse this, Asiedu (2002) using telephone lines per 1000 of population in her study. A good level of infrastructure will decrease the cost of provision of these by foreign investors lowering costs for them (Dupasquier and Osakwe, 2005). To conclude, a country with good quality of infrastructure has potential of attracting more investment. Several scholars have proven the importance of a reasonable physical infrastructure (Velde, 2006; Tran, 2009; Chakrabarti, 2012; Khadaroo, 2009) as a major macroeconomic factor that heavily influences doing business in a country. For doing business in a foreign country it is important that the infrastructural level is high enough to run the company efficiently. Poor infrastructure increase the costs for firms, often it makes the operation unprofitable. Physical infrastructure is a key component for all kinds of companies, where important elements heavily depend on the sector and FDI motive. Organizational infrastructure is proved to be more important in developed countries and is already discussed in the policy chapters (Velde, 2006). FDI in developing countries is characterized in producing and export-orientated investments. Transport infrastructure often is a bottleneck for those producers. The other side of lower labor costs means that transportation costs can be very high in an underdeveloped economy. To come back to China, its attractiveness is a result of lower labor costs that still exist and good infrastructure. Khadaroo (2009) found in his study in Africa that mainly infrastructural developed countries in Africa attract FDI. However, with the <https://assignbuster.com/theory-of-comparative-advantage-economics-essay/>

fact that in a lot of developing countries the transport infrastructure is still very poor, resulting in too high costs, FDI to Africa in general is limited. A way-out for developing countries is the self-reinforcing effect what FDI can generate, because also investors are willing to improve the infrastructure after their establishment in the country (Khadaroo, 2009). Theoretical and empirical literatures on the impact of infrastructure are also divided. Ang (2008), Asiedu (2006), and Onyeiwu and Shrestha (2004) find that the relationship between the level of infrastructure development and FDI flows is significantly positive, whereas Marr (1997) argues that the prevalence of poor infrastructure in the areas of road, rail system, electricity and telecommunication, can create an incentive for the flow of foreign investments. A priori, one expects that the gross infrastructural underdeveloped, which is a basic feature of most African countries, should be a source of attraction for foreign investments in the areas of construction, telecommunication, and so on.

## **2. 4 Determinants of FDI – Empirical Survey**

There has been an extensive body of empirical studies trying to explain " why some countries were more successful than others in attracting FDI" (Moosa & Cardak 2003). This plethora of empirical studies have tested and explored the effect of a range of macroeconomic determinants including GDP, GDP growth rate, real GDP per capita, exchange rate policy, openness of the economy, financial stability and physical infrastructure among others. There have also been studies dealing with the impact of socio-political factors such as political stability, education, corruption, political freedom etc., on FDI flows (Dar et al., 2004). The empirical investigation in this paper

focuses more on the macroeconomic determinants (pull factors) that will influence the FDI flows in the host country in particular Mauritius by using a time series analysis. Although there have been diverse methodologies used for the determinants of FDIs, it has also been controversial (especially when it comes to the causality effect between FDI and economic growth) so that it is difficult to have a simple model or any strong theoretical foundation to guide an empirical analysis on these issues. Kok, R and Ersoy B A in 2009 have stated that " A large number of studies have been conducted to identify the determinants of FDI but no consensus has emerged, in the sense that there is no widely accepted set of explanatory variables that can be regarded as true determinants of FDI". While some parameters are comprehensively discussed and of high relevance, it remains unclear how these interact. However, the results of past studies be it panel data or time series analysis for a specific category of countries or regions have been employed as an imperfect but useful guide. Given the vast amount of empirical literature on the determinants of FDI especially during the last few decades, the present section will elaborate on those studies which take on board Mauritius be it as small island economies or as a regional economic community namely SADC, Sub-Saharan African countries. Also those studies will be taken on board where time series analysis have been undertaken for specific countries using almost the same key determinants for FDI as those being proposed in the model of this paper. Wint and Williams (2002), Thomas et al (2005) and Wijeweera and Mounter (2008) have been using economic factors such as the target country's market size, income level, market growth rate, inflation rates, interest rate and current account positions to explain the determinants of FDI. They found that a positive interest rate

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differential assist in attracting FDI inflows as MNCs get the incentive to invest in foreign countries with positive interest rate differential barring the fact that there is no major fluctuation in the exchange rate. In the same vein, Cleeve(2008) using a multivariate regression model for 16 Sub Saharan Countries and trying to capture economic stability through the proxy (nominal exchange rate adjusted deflator), has shown that this variable is statistically effective. Rogoff and Reinhart (2002) and Wint and Williams (2002) show that a stable country attracts more FDI implying that a low inflation environment is desirable to promote capital inflows. Ali and Guo (2005) and Choudhury and Mavrotas (2006) have indicated that there is a strong relationship between the money growth acting as a proxy for financial stability in the host country and its effects in attracting FDI. Asiedu (2006) using a panel data for 22 Sub Saharan African countries has also shown that inflation rate depicts a negatively and statistically significant effect. However, under Mhlanga et al (2010) multivariate regression model for 14 SADC countries (Southern African Development Community), the inflation rate independent variable does not have any effect as it is statistically insignificant. In terms of the importance of capturing human capital development, both Asiedu (2006) and Cleeve (2008) made use of the percentage of adult literacy and secondary school education index respectively. Both indicators have proved to be not only positive (that is higher stock of human capital will increase FDI) but also statistically significant. According to Helleiner (1998), investment incentives by host country such as tax holiday appear to play a limited role to attract the MNCs as those incentives are believed to compensate for other comparative disadvantages. On the contrary, it is generally believed that removing

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restrictions and providing good operating conditions will positively affect FDI inflows. This has been reinforced through Cleeve (2008) whereby he found that proxies like temporary tax incentives, tax concessions and profit repatriation when used to capture financial and economic incentives are statistically insignificant.

It goes without saying that in order to attract FDI, economic liberalization is important both internally and externally. This has been translated in several empirical studies even for SADC countries and Sub Saharan African countries from Cleeve (2008) and Mhlanga et al (2010). The famous proxy used for openness of the economy, remains the total value of exports plus imports divided by the level of national income (GDP) although Asiedu (2006) uses an openness index from the International Country Risk Guide which also proved to be positive and statistically significant. In 2008, D. Ramjee Singh, Hilton McDavid, A. Birch and Allan Wright used a linear cross-sectional model of 29 small developing countries having a population of less than 5 million to test for the statistical significance of the determinants of FDI. They found that several of the traditional variables such as infrastructure, economic growth and openness to trade do promote the flow of FDI to small developing nation states. The focus of tourism has also been highlighted in the study. Contrary to expectation the role of market size as a determinant was found to be insignificant basically as the sample taken being small economies. With regard to infrastructure per se, Asiedu (2006) and Mhlanga et al (2010) have pointed out that the proxies (number of phone lines per 1, 000 inhabitants and number of landline and mobile subscribers per 1, 000 inhabitants) did matter for the 22 Sub Saharan African countries and 14 SADC countries



respectively. There has been previous research done with regards to the determinants of FDI in Mauritius (Seetanah B and Rojid S; 2011) applying a reduced-form specification for a demand for inward direct investment function using dynamic framework and a differenced vector autoregressive model using data from 1990 to 2007. The variables used were size of the country, wage rate, trade/GDP, the secondary education enrolment rate and tax rate. The findings revealed that the most instrumental factors appear to be trade openness, wages and quality of labour in the country. Size of market is reported to have relatively lesser impact on FDI. The present research would use more independent variables in view of capturing a maximum variation of the model and also using data from year 1976 to 2011 which would enable the capturing of the impact of the global financial crisis of 2007/2008. There were also important policy decisions taken in the period post 2006 and the present model would try to capture the effect of those important policies. New explanatory variables would supplement the existing literature on the determinants of FDI in Mauritius and trying to use those independent variables would capture the maximum variation in the FDI inflows.

#### **4. Empirical Study**

Previous studies by different scholars have revealed several determinants of FDI inflow. Blonigen (2005) identified determinants of FDI inflow in a partial equilibrium framework and a general equilibrium framework i. e factors that affect FDI at firm level and country level. Some determinants which are covered by Blonigen (2005) are exchange rate, tax, institutions and trade protection (Blonigen 2005). Tsen (2005) stated that education,

infrastructure, market size or current account balance leads to an increase in foreign direct investment. Other scholars' empirical study presented as follow.

### **Mahmood and Ehsanullah**

In their study Mahmood and Ehsanullah (2011) assessed the impact of macroeconomic variables on FDI in Pakistan. They have done time series analysis based on annual data from 1972- 2005. Augmented dickey fuller test and OLS regression method were used to analyze the relationship between macroeconomic variables and FDI. The dependent variable was FDI and population, democracy, manufacturing products, real exchange rate, real exports, import duty and enrollment at secondary school lever were used as independent variable. The variable population was used as the size of economy. Their findings show that population growth, democracy and enrollment at secondary school have positive impact on foreign direct investment. On contrary, manufacturing products, real exchange rate, real exports and import duty have negative impact on foreign direct investment. And they suggested that to bring more foreign capital positive macroeconomic indicators should be improved.

### **Liargova and Skandalis**

Liargova and Skandalis (2012) studied the relation between FDI and trade openness including other variables: exchange rate stability, nominal GDP, GDP per capita and political risk. FDI were taken as dependent variable and other variables were independent variables. 36 developing countries all over the world selected for the study (12 Latin American, 10 Asian, 4 African, 4 Common wealth of independent states and 6 Eastern European countries).

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The study covers the period from 1990 – 2008. Fixed effects model which is one of Panel regression analysis methods were employed to analyze the data. The results disclosed that political stability, exchange rate stability, market size, trade openness are the factors that affect FDI inflow positively. More specifically, trade openness has positive impact on inflow of FDI in the long run.

### **Frenkel et al.,**

The study by Frenkel et al., (2004) examined the determinants of FDI using panel data analysis based on gravity model. The study focused on bilateral FDI flow between 5 home countries (largest industrial countries worldwide) and 22 emerging economies from Asia, Latin America and Central and Eastern Europe. Since the study included both home and host countries, it analyzed push and pull factor of FDI outflow and inflow. FDI is dependent variable and distance between host and home countries, GDP growth, market size, inflation, risk, trade openness, are used as independent variables. The result revealed that economic development which is indicated by GDP growth rate is important factor for FDI inflow to host countries. In addition to this, market size which is represented by GDP has significant role for FDI inflow. Trade Openness which is computed as export plus import divided by GDP had positive effect on FDI inflow to the host country. Inflation which is indicator of economic stability has negative effect on FDI inflow. In addition to these, distance between host and home countries is inversely related to FDI flow.

## **Asiedu**

Asiedu (2002) assessed the determinants of FDI in developing countries. The main objective of the study was figuring out whether the factors that affect FDI in developing countries affect African countries specifically Sub-Saharan African. There were 71 countries selected for this study (32 were Sub-Saharan African countries and 39 were non Sub-Saharan African countries). Cross sectional data were used for the period from 1988 to 1997. OLS method was employed to analyze the data. The variable FDI was used as dependent variable and return on investment, infrastructure development, openness of the host country, political risk, financial depth, size of government, inflation rate, and GDP growth rate used as explanatory variables. The study result shows that trade openness has positive impact on both Sub-Saharan and non-Sub-Saharan Africa. However, Sub-Saharan Africa received less FDI than non Sub-Saharan African. This is because, as Asiedu (2002) argued, Sub-Saharan Africa countries are less open than other regions. While infrastructure development has positive impact on the FDI inflow in non sub-Saharan Africa, it has no significant effect on sub-Saharan Africa. The study suggests that the same policy cannot be effective in different regions.

## **Bende –Nabende**

Bende -Nabende (2002) examined the factors that influence the decision of MNC's in sub-Saharan Africa countries. In this study 19 Sub-Saharan African countries were sampled. The co-integration analysis method used to analysis the data. The variables that are used in this study were real wage rates, interest rates, foreign exchange rates, openness, liberalization, current

market size (GDP), market growth, human capital, export oriented policy.

These variables are explanatory variables. FDI is dependent variable. Market growth, export orientation policy, and FDI liberalizations are the main factors that are suggested to be the dominant long run determinants of FDI inflow in Sub-Saharan Africa.

### **Astatike and Assefa**

Astatike and Assefa 2005 did time series analysis to assess determinants of FDI in Ethiopia. The data covered the period over 1974 - 2001. The study focused on market size (Real GDP per capita and real GDP growth rate are included as a measure of market attractiveness), export orientation (export as a percentage of GDP), macroeconomic stability (rate of inflation based on consumer price index), infrastructure (gross fixed capital formation and number of telephones), Human capital (rate of adult illiteracy) and trade liberalization. There are four regression models. The sign and significance of the variables; GDP per capita (positive but not significant), Growth rate of GDP (positive and significant in three models out of four), export orientation (positive and significant in all models), inflation (negative and significant), trade liberalization dummy (positive and significant), telephone per 1000 (negative and significant), gross fixed capital formation (negative and insignificant) and illiteracy (negative but insignificant). The study findings show that the growth rate of real GDP, export orientation and trade liberalization are found to have positive impact on FDI inflow to Ethiopia. Macroeconomic instability and poor infrastructure have negative impact on FDI. The result suggests that in Ethiopia, trade liberalization, stable

macroeconomic and political environment and good infrastructure are essential to attract more FDI.

### **Anyanwu**

The study by Anyanwu (2011) investigated the determinants of FDI inflow to Africa. Panel data analysis method were employed to analyze the data that covers over 1980-2007. The factors that were included in the model are urban population (as percentage of population), GDP per capita, openness (trade as a percentage of GDP), financial development (domestic credit to the private sector), inflation (annual inflation rate), exchange rate, government consumption (percentage of GDP), infrastructure (fixed and mobile subscriber per 1000), political right and regions. The study result shows that large market size, trade openness, high government consumption expenditure have positive impact on FDI to Africa. In addition to this, the study indicated that high remittance has positive effect on FDI inflow. Natural resource endowment was also a factor that has positive impact in FDI inflow. Compared to other part of Africa, East and Southern African sub-regions attracted more FDI. However, Anyanwu (2011) stated that higher financial development had negative impact on FDI inflow.

### **Khachoo and Khan**

The study by Khachoo and Khan 2012 identified the main determinants of FDI inflows to developing countries. 32 developing countries were sampled and the data covered the period over 1982- 2008. Panel regression methods were used. The dependent variables were gross domestic product (Market size), total reserves, electric power consumption, wage rate and openness (export plus import divided by GDP). The result shows that large market size, <https://assignbuster.com/theory-of-comparative-advantage-economics-essay/>

more reserves, good infrastructures and less labor cost have positive impact on FDI inflow to developing countries. The positive relationship between GDP and FDI inflow shows that country with large market size can attract more FDI. More reserves have also positive impact on FDI inflow to host country. In addition to these, good infrastructures are also the determinant of FDI inflow. Moreover, low labour cost can also motivate MNC's to invest in a country where there is low wage rate. However, has shown that openness do not have impact on FDI inflow which is contrary to theories and to some empirical studies.