

# **ANALYSIS OF HOW BLACK MARKET EXCHANGE PREMIUM AFFECT FOREIGN DIRECT INVESTMENT (FDI)**

*Article Review by: Jones Stevelio Stamalevi  
(Executive MBA- Student of Texila American University)  
Email: - stamalevi@yahoo.com*

## **ABSTRACT**

**Purpose** – The purpose of this paper is to investigate how black market exchange premium affect Foreign Direct Investment. The results of the study will shed light on whether black markets served to impede or enhance FDI inflows, and hence whether their disappearance since the 1990s should be of importance to developing countries keen to attract FDI.

**Design/methodology/approach** – In studying the effect of the black market premium the author used historical study for 28 developing countries with high, low and moderate black market premiums for the years 1982-1993. The author used several models to support his hypothesis which include econometric model and regression analysis. Data on the black market exchange rate was obtained from the Pick's Currency Yearbook for the years 1983-1988 and from Global Financial Statistics for the years 1989-1993. The premium is calculated as the percentage difference between the official exchange rate, obtained from the IMF, and the black market exchange rate.

**Findings** – Contrary to hypothesis, the results show that the black market exchange premium does not affect net FDI inflows. The author asserts that, if this result is in fact accurate, then liberalization of currency regimes in developing countries, which leads to the disappearance of black markets, should not be expected to bring in more or less foreign investment, the reason being that the black market premium did not in the past impede nor enhance foreign investment.

## **INTRODUCTION**

Foreign direct investment (FDI) is an important form of private external financing for developing countries and is regarded as the major source of foreign capital for developing countries, as opposed to portfolio flows or foreign aid. Unlike other major types of private capital flows FDI is largely motivated by a firm's long-term prospects for making profits in production activities that it directly controls.

The author noted that FDI not only add to investment resources and capital formation, but it can also serve as an engine of technological development with much of the benefits arising from positive spillover effects. Such positive spillovers include transfers of production technology, skills, innovative capacity, and organizational and managerial practices.

The author is investigating to find out how the black market exchange premium affects foreign direct investment. He defined black market exchange rate as the price of foreign currency on the black market and premium was defined as the percentage difference between the black market rate and the official exchange rate. In

looking at how the black market premium affects FDI, the author carried a historical study for the years 1982 to 1993 on 28 countries. The author observed that doing a historical study was appropriate since most developing countries are moving towards liberalized exchange rate regimes, where their currency is allowed to float on the market. Floating exchange rate regimes make black markets unnecessary.

## **SUMMARY**

The author has made a brief review for the approach used for how black market exchange premium affects foreign direct investment. He has clearly defined his tool for approving his hypothesis. The study concentrates on determination of how black market exchange rate affects the black market premium on FDI flows. The author analyzed literature relating to FDI and exchange rate movements as his starting point from which to study the black market premium and FDI, so as to later predict the relationship between the two.

The author observed that exchange rate movements and exchange rate uncertainty would appear to be important factors investors should take into account when making the decision to invest abroad. However, he further noted that some might argue that if exchange rate movements offset price movements so that purchasing power parity is maintained, then there should be little effect on FDI flows. The author also agreed that there is empirical evidence which shows that purchasing power parity does not hold for all time periods and thus exchange rate movements are important in determining the flow of FDI.

Furthermore, the author asserts that coefficients on capital cost differentials and the real exchange rate deviation are both insignificant. Thus it seems that, contrary to the theoretical model of FDI, investment is only driven by per-capita GDP and labor cost differentials. He observed that one of the explanations for this contrary finding is the insufficiency of the data since several variables for certain countries were unreported. Also, the insignificance of the coefficient on the real exchange rate deviation may be attributed to the downward bias on the coefficient due to the endogeneity between real exchange rates and FDI inflows

Further analysis of the article confirms that overvalued real exchange rate creates an excess demand for foreign exchange, which cannot be satisfied under the official rate system. As a result, the black market rate for foreign currency goes up creating a high black market premium. Conversely an undervalued real exchange rate leads to a decrease in the premium.

The empirical evidence in the article show that the presence of multi-national corporations (MNCs) in developing countries do not bring the expected positive spillover effects to domestic firms in the same industry. Furthermore, negative spillover effects were noted in the article as domestic firm productivity decreases as MNCs move into the market. The fall in domestic productivity is attributed to domestic firms having to compete with more efficient MNCs. Going by such evidence it might seem that FDI is unimportant, and even an obstacle, for economic growth in developing countries.

However, further studies have argued according to the author that while there might not be evidence for positive intra-industry spillovers, meaning spillovers for domestic firms operating in the same industry as MNCs, there is evidence for positive inter-industry spillovers, meaning spillovers that accrue to domestic firms in different industries

## **REVIEW OF THE EXISTING LITERATURE**

The author reports comparative findings of different past research and scholars. To achieve this, the author reviewed the existing literature and conflicting arguments were raised. Specifically he reviewed literature on exchange rate levels and exchange rate Volatility to assist him to prove his hypothesis.

### **EXCHANGE RATE LEVELS**

The author reviewed the studies of Dornbusch's (1983), Saca (1997), Froot and Stein (1991), Campa (1993) and Blonigen (1997) to support his arguments on exchange rate levels. He noted that Dornbusch's (1983) study emphasizes portfolio decisions on holding black market dollars versus domestic assets for the case of Brazil. His model explains how changes in financial and real variables, as well as expectations of future exchange rate movements, affect the black market rate. He observed that, a tight monetary policy, by raising domestic interest rates, increases the relative attractiveness of domestic assets. In this case higher demand for domestic assets relative to foreign assets reduces the black market premium.

On the same vein, the author noted that Saca (1997) used a similar approach to study the determinants of the black market premium in El Salvador and found that the supply of foreign exchange depends on the black market premium, the official exchange rate and seasonal factors. A higher premium increases supply, because a higher price can be obtained for the foreign exchange supplied.

Furthermore, the empirical results of Saca's study revealed that a 1% real depreciation of the official exchange rate leads to a proportional decline in the premium. His finding is consistent with the hypothesis that the black market premium rise in the face of expectations of a future devaluation in the official rate, and then fall once the devaluation actually takes place.

Another interesting finding is that of Froot and Stein (1991) who used industry-level data on US inward FDI for the 1970s and 1980s to support their hypothesis and claimed that the level of the exchange rate may influence FDI, because depreciation of the host country currency against the home country currency increases the relative wealth of foreigners thereby increasing the attractiveness of the host country for FDI as firms are able to acquire assets in the host country relatively cheaply. Furthermore, Froot and Stein (1991) counter this argument with the claim that when capital markets are subject to information imperfections, exchange rate movements do in fact influence foreign investment.

The literature review further show that contrary to Froot and Stein (1991) above, Campa (1993) puts forth the hypothesis that an appreciation of the host currency will in fact increase FDI into the host country. According to Campa, a firm's decision to invest abroad depends on its expectations regarding future profit streams. Campa analyzes the number of foreign entrants to the US in the 1980s to provide evidence for his claim. In accordance with his hypothesis, Campa finds that an appreciation in the host-country exchange rate stimulates FDI to the host-country.

The author discovered that Blonigen (1997) study on exchange rate levels and FDI shows that real dollar depreciations increase foreign acquisitions involving firm-specific assets by foreign firms. Blonigen argument differs from the argument put forth by Froot and Stein (1991), although they both have the same outcome. Froot and Stein show that exchange rate movements are important because capital markets are imperfect. On the other hand, Blonigen shows that exchange rate movements matter because while domestic and foreign firms may have the same opportunities to

purchase firm-specific assets in the domestic market, foreign and domestic firms do not have the same opportunities to generate returns on these assets in foreign markets. Blonigen is able to support his claim that exchange rate movements influence FDI due to firm-specific assets.

## **EXCHANGE RATE VOLATILITY**

The author reviewed a number of literatures regarding exchange rate volatility. He reviewed the study of Goldberg and Kolstad (1995) who noted that when evaluating risk-aversion approaches versus production flexibility approaches it is important to distinguish between short-term exchange rate volatility and long-term misalignments. This assertion was modified by Cushman (1985) who argued that under exchange rate volatility, he hypothesizes that firms will prefer FDI to exports, and thus increased exchange rate volatility leads to increased FDI.

Further, contrary to Cushman, a similar study by Sercu and Vanhulle (1992) shows that increased volatility in exchange rates raises the returns to exports thereby reducing levels of foreign investment. When firms are not faced with a choice between exporting and FDI, the effect of exchange rate volatility on FDI changes.

On the same argument, Gorg and Wakelin (2002) find that exchange rate volatility has no effect on US outward FDI. Such a finding runs contrary to past studies, including Cushman's model of the choice between FDI and exports under exchange rate volatility and Campa's extension of the standard model, where there is no choice between exports and FDI, to include risk-neutral firms. Regarding inward FDI to the US, Gorg and Wakelin (2002) find that exchange rate volatility has no statistically significant effect on inward FDI, which is consistent with the finding regarding outward US FDI

Following the arguments above, the author asserts that the level of the exchange rate negatively affect inward FDI. This means that inward FDI increases as the foreign currency appreciates against the dollar. This results is in line with that of Froot and Stein (1991) who claimed that foreign investment increases as the host country currency depreciates, for relative asset prices in the host country become cheaper. It is also in line with Blonigen's (1997) claim regarding firm-specific assets. However, such a result is at the same time contrary to Gorg and Wakelin's (2002) own finding on the effect of the exchange rate level of outward FDI, which showed that outward US foreign investment decreased as the host country currency depreciated against the dollar.

The author further looked at the study of Love and Lage-Hidalgo (2000) who developed a model to examine the determinants of foreign investment by testing investment flows from the US to Mexico between 1967 and 1994 and found that a higher per capita GDP, which proxies demand, is positively correlated with FDI flows. Love and Lage-Hidalgo (2000) acknowledge that exchange rate movements affect FDI flows.

## **HYPOTHESES**

Ashwini Jayaratnam mentioned several expectations and he explicitly stated and labeled his hypotheses. One of his expectation was that black market exchange premium affect Foreign Direct Investment. The research is based on comparative historical findings of 28 countries as a part of research thesis completed in July 2003

## **DATA SOURCE AND METHOD OF COLLECTION**

In studying the effect of the black market premium the author used historical study for 28 developing countries with high, low and moderate black market premiums for the years 1982-1993. The author used several models to support his hypothesis which include econometric model and regression analysis.

To earn credibility of the data source, the author used data on the black market exchange rate obtained from the Pick's Currency Yearbook for the years 1983-1988 and from Global Financial Statistics for the years 1989-1993. The premium is calculated as the percentage difference between the official exchange rate, obtained from the IMF, and the black market exchange rate. The variables used include interest rate and real gross domestic product.

## **METHOD OF ANALYSIS**

A historical analysis was used where data was analyzed using appropriate tools. Findings on determination of the black market exchange rate, exchange rate levels, exchange rate volatility and economic determinants of FDI were considered in the analysis. The author used both the qualitative and quantitative data analysis on the studying the effect of the black market premium on FDI.

Several different models were run, including a linear graphs and regression analysis. The tables were well organized. The dependent variable was clearly stated in all tables. A survey instrument was not provided, but several prior research and scholars were quoted in the article.

## **FINDINGS**

The author noted a number of findings on the analysis of the data using the models, regression and statistical analysis he used. Contrary to hypothesis, the results show that the black market exchange premium does not affect net FDI inflows. Though there were many conflicting findings by different scholars the author managed to summarize his results on the models he used. The major findings for both from his analysis and prior research are summarized below.

From the results of the analysis, contrary to hypothesis, the black market exchange premium does not affect net FDI inflows. The author asserts that, if this result is in fact accurate, then liberalization of currency regimes in developing countries, which leads to the disappearance of black markets, should not be expected to bring in more or less foreign investment, the reason being that the black market premium did not in the past impede nor enhance foreign investment.

The regression analysis reveals that per-capita GDP and wage differentials are the key drivers of FDI to developing countries. The author agreed that his results are in line with the conclusions of past studies on the determinants of FDI. Firms are drawn to host-countries with a large market size, proxied by GDP or GDP per-capita, where demand for their product is expected to be high.

The author further found out that firms in industrialized countries may not be attracted to investing in host-countries with low GDP growth rates. As a result, such countries will be further impeded in their attempts to grow the economy, as they do not get the many benefits of foreign investment. Furthermore, regarding labor-cost differentials, the author noted that past studies have also shown low labor-costs to be key drivers of FDI. Firms relocate abroad in order to take advantage of cheap labor, as well as other raw materials costs.

There was evidence in the article which supports that economic and political instability being correlated with the black market premium. He noted that a high premium is indicative of high

economic and financial instability in a country, as would be expected since a high premium signals an overvalued official exchange rate. He further noted that, a high black market premium is correlated with political instability. Furthermore, due to correlations with political and economic instability, the black market premium has a negative effect on foreign investment, contrary to the positive effect that the author predicted on the grounds that it mitigates the effect of an overvalued exchange rate.

## **REVIEWER/AUTHOR ARGUMENTS**

Though the study is historical, the results of this research provide insights into the importance of recognizing the effects of black market exchange premium on DFI in developing countries. However, several limitations must be considered in interpreting the study findings because of the conflicting arguments raised in the article.

## **CONFLICTING ARGUMENTS**

This research was aimed to provide further evidence on the effect of black market exchange premium on DFI since the results from previous research have been equivocal. Using Love and Lage-Hidalgo (2000) acknowledges that exchange rate movements affect FDI flows while Gorg and Wakelin (2002) find that exchange rate volatility has no statistically significant effect on inward FDI, which is consistent with the finding regarding outward FDI. Also Blonigen argument differs from the argument put forth by Froot and Stein (1991), although they both have the same outcome. Froot and Stein show that exchange rate movements are important because capital markets are imperfect. This further confirms the controversy in literature concerning the impact of exchange rate volatility on FDI. This statement and numerous others throughout the article show that further research in this area is important and can improve the overall understanding on the effects of black market premium on FDI.

## **LACK OF SOLID SOLUTIONS**

Although the article offers well-supported arguments it has to be admitted that the current study is still far from being conclusive as observed above. Further studies must be undertaken, better measures must be developed, and larger samples from different sources must be used to improve our understanding on how the black market exchange premium affect Foreign Direct Investment (FDI). Despite some deficiencies in methodology the study has provided some insights on the effect of exchange rate premium on DFI on developing countries in general.

Ashwini Jayaratnam while he fails to suggest alternative future research within the subject area, he also omits discussing limitations of his research which can provide solutions to future scholars researching in the same subject.

## **DESIGN OF THE ARTICLE**

The article is empirical as it shows some evidence of using statistical methods to support his argument. The article is based on prior selected studies which are compared and summarized on the basis of the authors experience, existing theories and models and his results are based much on qualitative rather than quantitative level and the author has managed to make appropriate comparison to past research. The author provided adequate discussions, analysis and a clear conclusion. The research was well designed though the table of content and key words in the article

were not provided. Table of contents guides the reader to understand and appreciate the design of the article.

## **STRENGTH OF THE ARTICLE**

The author outlined much of the key areas of the article and he gave adequate and appropriate examples and illustration to support his arguments based on the prior research and his findings from the analysis of the results. The author used simple language to accommodate large audience and I am confident that the results reflect true picture of the findings though further research is required to clear the grey area as observed above. Since the article is historical, we can conclude that the ideas in the article are not new as the author is based on the prior research. Elements of thoroughness in the review, methodological considerations and exposition of results were noted and did not distract the author's findings and their overall implications.

## **FUTURE RESEARCH**

The author has not suggested further studies on this area. The author could have suggested similar study to be done on the same topic in different countries, using different data source and statistical tools and others for analyzing results.

## **CONCLUSIONS**

From the results of the analysis, contrary to hypothesis, the black market exchange premium does not affect net FDI inflows. The author asserts that, if this result is in fact accurate, then liberalization of currency regimes in developing countries, which leads to the disappearance of black markets, should not be expected to bring in more or less foreign investment, the reason being that the black market premium did not in the past impede nor enhance foreign investment.

The results also revealed that an overvalued real exchange rate creates an excess demand for foreign exchange, which cannot be satisfied under the official rate system. As a result, the black market rate for foreign currency goes up creating a high black market premium. Conversely an undervalued real exchange rate leads to a decrease in the premium.

The coefficients on capital cost differentials and the real exchange rate deviation are both insignificant. Furthermore, contrary to the theoretical model of FDI, investment is only driven by per-capita GDP and labor cost differentials. The author asserts that one of explanation for this contrary finding is the insufficiency of the data and that several variables for certain countries were unreported. Also, the insignificance of the coefficient on the real exchange rate deviation is attributed to the downward bias on the coefficient due to the endogeneity between real exchange rates and FDI inflows.

The regression analysis reveals that per-capita GDP and wage differentials are the key drivers of FDI to developing countries. The author agreed that his results are in line with the conclusions of past studies on the determinants of FDI. Firms are drawn to host-countries with a large market size, provide by GDP or GDP per-capita, where demand for their product is expected to be high.

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