

# Foreign Direct Investment (FDI) on Economic Growth: Congo Brazzaville's Case

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## Abstract

The purpose of our study is to assess the impact of foreign direct investment on economic growth in Congo (Brazzaville) over the period 1993-2004. In order to achieve this objective, we firstly proceeded with an analysis of FDI flows toward Congo and secondly, using an econometric evaluation with a panel analysis data collected in countries from the CEMAC zone over the same period. The data used were obtained from the World Bank basis Development Indicator (2004), which was sourced from the IMF and UNCTAD reports. This study shows that from the econometric estimation there are four variables that are statistically significant, and there is no causality of FDI on the economic growth despite the political context and the economic measures taken. However, economic growth is statistically significant on the FDI, only in the long term.

## Keywords

Foreign Direct Investment, Economic Growth, Causality

## 1. Introduction

Globalization has promoted the integration of all economies and the challenges that hindered this growth among states are gradually being overcome. New ways of financing growth came with the expansion of international financial flows. All developing countries are today in a fierce competition to attract foreign direct investment (FDI).

Today, the theme related to the impact of foreign direct investment (FDI) on economic growth is a key problem faced by many African countries. Since the 1990s political crises which span to current day, today, the Congolese State has decided to treat the investment problem by setting laws and regulations, and giving a great importance to investment as the engine of the national development. The importance of investment in the design and implementation of economic policies based on a strong, healthy and sustainable growth is a hot topic which has inspired a lot of works in economic literature about investment function. Indeed, economic theory tells us through the very popular model of Harrod-Domar that the accumulation of physical capital stock is essential to the dynamics of economic growth. Also, this model shows us that the growth of population and the stock of knowledge being exogenous, the net investment becomes the only factor on

which economic policy authorities can act. This study is a renewed interest in the analysis of the causal relationship between FDI and economic growth. Wang (2002) studied the FDI-growth economic causation in China. He concluded that FDI had a positive impact on economic growth. De Melo (1997), based on a sample of 32 countries from the Organization for cooperation and Economic Development (OCED) and non-OCED, highlights the positive impact of FDI on the economic growth of beneficiary countries. However, a study led by Chakra borty and Al. (2002) in India shows that the FDI do not cause economic growth in the Granger sense but that it is rather the economic growth that attracts FDI. Mishra and Al. (2001) confirmed this result by emphasizing on the fact that in general, it is the economic growth of a country which causes the FDI. Using a test of causation in the Granger sense, Dembele (2008) concluded that the previous information on the level of the FDI do not allow a better prediction of the level of economic growth in Ivory Coast. The study conducted by Liu and Al. (2002) on China, reveals a two-way causal relationship between FDI and economic growth in the long term. Feridun (2004) was to him, led to a one-way causal relationship between FDI and economic growth in Indonesia. Using panel data from WAEMU countries, KOUPKO (2005) concluded that human capital and economic openness are more important

determinants of FDI. They concluded that the impact of FDI on economic growth depends on the potential of the country in human capital. As one can see, there is a profusion of empirical analyses on economic FDI-growth relationship. However, those studies are mostly carried out in countries receiving the bulk of FDI. With regard to the specific case of Congo, there are few recent studies on the issue. The originality of this study lies on the fact that it incorporates the politico-economic context to explain the causal relationship between FDI and economic growth. This work could help policy makers to better understand the importance of the political context and economic measures in the definition of FDI's attraction strategies.

#### *Literature Review and Hypotheses of Development*

Our literature review focuses first on the theoretical linkages between Foreign Direct Investment and economic growth throughout the mainstream of economics thought and the second step is on the analysis of causation of FDI-growth.

### **1.1. Economic Growth**

Actually, many theoretical studies occupy a prominent place in economic literature. Next to traditional factors, which are capital, many studies looked at other sources of economic growth. That is how long, in this theoretical abundance, some authors and institutions are rediscovering the driving role that foreign direct investment can play in the economic growth process. The growth has been often confounded with development. However, there is a fundamental difference between the two notions. Indeed, the growth is a quantitative phenomenon that can be defined as an increase in per capita income and gross national product GDP. Development, which is a qualitative phenomenon, involves in addition to economic growth structures change (attitudes, social, economic, etc.).

According to some economists such as Solow (1956), Kuznets (1959), Denison (1961), Lucas (1998), economic growth is fully controlled by natural data (amount of non-renewable resources), demographic (population growth and changes in the activity rate) and by uncontrollable events (technical progress in the broad sense). The great revolution came from Robert Solow in 1956 which takes into account the residual factor (technical progress considered as exogenous) in the theory of growth. After the publications of Solow, several works were completed including those of Arrow (1962) about learning by practice, Uzawa (1965) on optimal technical progress and Becker (1964) on human capital. All these works have shed enormous lights on the growth process. These theories (technical progress considered as exogenous) belong to exogenous growth theorists. However, from the outset of the reflections on economic growth, other explanations have been proposed: these are theories of endogenous growth because they are at the origin of the growth in the functioning of the economic system. The new theories of endogenous growth will see a renewed interest from the 1980s with Paul Romer (1986), Robert Lucas (1988), Barro(1991), Grossman and Helpman (1991) and Barro and Sala-i-Martin (1995). All of these different models emphasized on the fundamental role of the accumulation and dissemination of technology in

economic growth. Researches on human capital accumulation and infrastructure development by public authorities require that they refer to the new growth theories because the analysis of economic developments in Congo has anticipated on the development of the endogenous growth theory.

### **1.2. Foreign Direct Investment**

The FDI is defined as a significant stake in the capital of a foreign company, giving it control over the decisions of the firm: "a right of scrutiny in the management of the foreign business invested. This concept is opposed to that of portfolio investment. The concrete test used by the official bodies including the IMF to separate the two types of flow, is a criterion for participation. Beyond this definition, one that seems most popular is given by the OECD. It defines FDI as an activity in which an investor resident in a country gets a lasting interest and a significant influence in the management of a resident entity in another. An investment abroad can be performed in two major modes, the construction of a production from scratch site, referred as "Greenfield" investment or through the purchase of an existing site; in this case it is an international acquisition. In both situations, we can say that the firm responsible for this acquisition is 'multi-nationalizing' itself. Multinational firms (MNF) are the main vectors of FDI. International organizations such as OECD and the United Nations Conference for trade and development (UNCTAD) called multinational any undertaking which, regardless of its legal form has direct or indirect control over assets owned by one or more enterprises located in different countries from the country where the company has its headquarter. Furthermore, the company which exercises control over foreign assets is called parent company. The company, whose assets are totally or partially controlled by the parent company, is referred as subsidiary. The total number formed by the parent company and the subsidiary or subsidiaries abroad is called multinational group, multinational or transnational corporation. According to the definition of the Balance of Payments given by the IMF manual, they match with different financial transactions intended to act on the market and in the management of companies in a different country. Foreign Direct Investment (FDI) means "transfers of assets, tangible and intangible assets from one country to another, where they will be used for the purpose of production of wealth under the total or partial control of the owner of those assets. "According to UNCTAD, there is foreign direct investment when an investor based in a country (the country of origin) acquires an asset in another country (host country) with the intent to manage it. Under this report, it is possible to distinguish three types of FDI: participation in capital (mergers, acquisitions) and creations of new facilities (so-called green Fields), reinvestment of profits and other capital flows (and short-term or long-term loans made between the parent company and its subsidiary). In practical terms, a Foreign Direct Investment may give rise either to the creation of a new company, or to the purchase of shares or the increase of the capital of an existing company. FDI generally promote job creation, improving productivity

and competence and transfer of technology. Eventually, they indirectly increase wages and salaries of workers. They also promote the growth of exports. Finally, FDI generate tax revenues and through them, it can contribute to the implementation of social policy for the missing people categories from the consumer market. Therefore, all countries strive, regardless of their level of development to attract FDI and its benefits. FDI also allows countries concerned to be integrated into the global economy. The level internationally adopted to differentiate FDI from portfolio investment is that FDI should reach at least 10% of the capital of the foreign company coveted or created (subsidiaries, representation, etc.)

## 2. Analyses of Causal Foreign Direct Investment-Growth

Several studies have attempted to establish a causal analysis between FDI and growth with divergent results. A study published by the World Bank in 1999 in order to find a relationship between FDI and growth of developing countries shows that FDI flows increase total investment and thus the growth of developing countries. Borensztein, Gregorio and Lee (1998), using a model of endogenous growth found similar result: FDI facilitates technological transfer, raise the qualification level of workers and tend to also increase exports and competitiveness in developing countries. Their study on 69 countries shows that a one point increase percentage of the ratio of FDI on GDP increases the rate of GDP's growth per capita of the host country by 0.8 per cent. For Wacziarg (1998), each percentage point of FDI on GDP ratio is associated with a rise in the rate of GDP growth per capita of between 0.3 to 0.4 percent. These results are identical to those from Blomstrom, Lipsey, Zejan (1992) whose study focuses on developing high income.

Loesse (2005), in the search for a relationship between FDI and economic growth in Ivory Coast found that from 1970 to 2001, foreign direct investment has been an important source for growth. All things equal, he also found that one percentage point of additional FDI entering Congo produces an increase in the growth of the gross domestic product per head of 0.01 percent. The author argues that investment incentive policies implemented have contributed to increase the flow of FDI so the productive capacity of the economy, which resulted to an increase in domestic gross product.

## 3. Interest of Research

Congo is one of eight nations situated in the Central Africa region. Located on the Equator, it spans over 1,500 kilometers, shores of the Gulf of Guinea to the Central African Republic. Congo is sometimes called Congo-Brazzaville to avoid confusion with the Democratic Republic of Congo also called Congo-Kinshasa. It has also been known under the name: The People's Republic of Congo (1969-1992). Congo-Brazzaville is well known for its economic disorder and political instability. The border countries are: Gabon, Cameroon,

Central Africa Republic, Democratic Republic of Congo (DRC) ex Zaire and Angola. Congo has a coastline which stretches 170 kilometers long, and which is placed in the heart of the second largest river basin on the planet- the Congo River and its tributaries. Congo among the countries in Africa, have realized the strongest average GDP growth rate in the last twenty years. The augmentation of the price of a barrel of oil opened new perspectives in the country. Our issue is devoted to know the reasons which led the MNF to invest in Congo and the impact of these investments on economic growth.

To answer these questions, our target is to show the factors in Congo responsible for these FDI as economic entity of good governance can create foreign direct investment in the CEMAC and specifically in Congo. To answer these questions one will use the econometric panel estimation of indicators to show these factors.

## 4. Evolution of Foreign Direct Investments (FDI) in Congo

The FDI in Congo has several sources with France, predominantly involved in all sectors of economic activity. France investments in Congo amounted to about 459 million Euros of FDI from 1993 to 2004 corresponding to 20% of the total stock of FDI in the country. This percentage places Congo as the 50th French colony worldwide of France's FDI in terms of stock. In the same year, French FDI flows entering Congo was 85 million euro, thus placing Congo as the 29th sovereign state in the world benefiting from French FDI flows. The other countries which have invested in Congo are the United States of America (who signed a convention for the protection of investments with Congo in 1990), Italy which happens to be a signatory of an agreement with Congo in 1994, China with the 2000's convention and Great Britain which signed a convention with Congo in 1989.

The FDI in the Central Africa region, Congo in particular is very volatile and insignificant at the global level. However, this investment can boost the Congolese economies which will benefit the economy through tax incomes from multinational enterprises and also from revenues generated by the exploitation of all resources produced by those firms. Since the boom of FDI in the world, few studies have been conducted in Africa, Congo in particular. Congo is one of the countries with very high risk in CEMAC, and the distribution of its FDI in economic sectors is influenced by this factor. FDI is concentrated in the oil sector to more than 70%; 20% in industry excluding oil and 10% in the primary sector. There are virtually no industries in the country apart from a few units of timber, sugar or beer production. Political conflicts that led to the civil war got almost all destroyed. In non-oil industry, FDI is concentrated in wood processing, mining, plate and some construction materials, while the rest goes to the oil sector (production and distribution).

In the tertiary sector, there are a few companies in the construction industry, electricity and water as well as banks and insurance. Congo has seen an average entry of FDI of

around 30 million dollars a year between 1980 and 1991. It is often retained that FDI helps creating jobs, maintaining productivity, transfers skills and technology, increasing exports and contributing to economic development in developing countries. The central question here is whether there is and what are the benefits of FDI in Congo. In 1992, FDI fell to its lowest level for more than two decades (\$3

million). In 1993, FDI inflows made a spectacular jump to \$ 286 million. Then, they remained stable at 50 million averaged between 1994 and 1998 before reaching a record level of \$ 521 million in 1999. The three years that followed this record level saw FDI decline to 120 million on average, before making a bend never equaled since the independence with 668 million dollars in 2004.

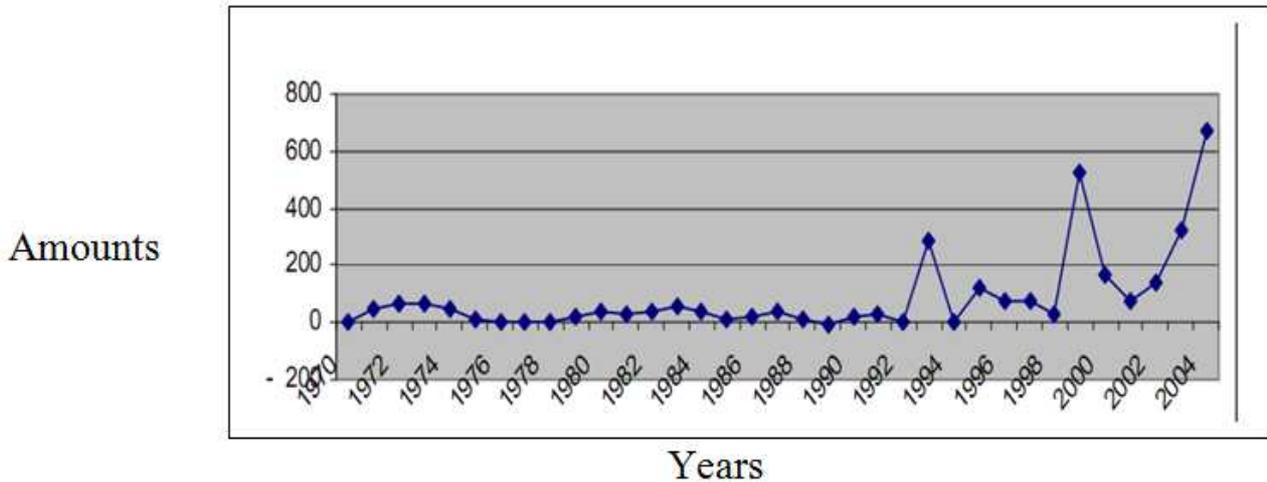


Fig. 1. Evolution of Foreign Direct Investments (FDI) in Congo.

#### 4.1. Factors Promoting FDI in Congo

A number of factors have led to the entry of FDI in Congo. One of these factors remains the discovery and exploitation of new oil wells. In general, the FMN invests the most in oil and gas sector. The second factor favorable to FDI entry is the privatization phenomenon undertaken in the context of IMF's structural adjustment. Several public companies have been privatized such as the NCE (National Company of Electricity), the banking sector which, since the restructuring changed shareholders in most of the countries from the Central Africa zone. Others companies are already in the portfolio of companies awaiting privatization. Another favorable factor may be the existence of texts regulating capital flows entry in different countries. The existence of the code of investment, incentives on tax and repatriation of profits has helped to attract FDI. However, most of those codes are somewhat obsolete. For example in Congo the old code was replaced by an investment Charter which did not clearly mention FDI but does within the overall framework of investment. The creation of export processing zones has also promoted the arrival of MNF to establish their subsidiaries. In macroeconomic terms, the growth rate of real GDP which had become negative since the advent of the economic crisis became positive. The devaluation of the currency in January 11th, 1994 also made it possible to restore the Congo's external competitiveness.

The Government, with the support of the development partners is engaged in a reforms process for the improvement of the business environment. This includes revisiting the fundamentals of public and private support to SMEs in order to enable them adapt to the requirements of the new economic situation. The welfare State has given way to State

facilitator-regulator. The first axis of the strategy is to create support structures for new born companies, while the second axis focuses on its promotion and expansion. The expected results are: reduction of the cost of enterprises creation, reduction of disputes related to land, reduction of the establishment period of companies, the increase in the number of formal enterprises. These measures are also reducing the time devoted by the companies to pay taxes and the choice of the appropriate legal system in the country according to regulations.

#### 4.2. Factors That Have Disadvantaged FDI in Congo

As noticed in the previous table statistics, there were no investments in Congo due to the political instability and economic disorders. Congo Brazzaville has been presented over the world through these problems. Generally, Congo is not really a large market in economic sense, boasting a population of 4 million spread over an area of 34200 km<sup>2</sup>. Oil in Congo is in an extraction phase. In terms of governance, much remains to be done, either in terms of reduction in corruption, proper functioning of the State, regulation quality, freedom of speech or in terms of responsibility and policy stability. Another weakness which militates against FDI in Congo is the chronic lack of infrastructure such as accessible roads.

### 5. Methodology

In order to achieve this goal, a panel estimation data will be used to analyze indicators of attractiveness on the data collected in countries from the Economic and Monetary

Community of Central Africa (EMCCA) during the period 1993-2004. Due to the extreme difficulty finding specific data on Congo alone, data were collected from the countries that made up the CEMAC zone as a result of their economic similarities to best achieve our goals.

Table 1. The explanatory variables.

Economic risk	Financial risk	Governance
GDP per head (GDP)	Debt in % of GDP (debt)	Freedom of speech and responsibility
Growth rate of real GDP	External debt service in export	Political stability and absence of violence
Annual inflation rate	Ordinary balance in % export	Functioning of the State
Balance current in % of GDP	Coverage in months of import	Quality of Regulation
Rate of domestic investment	Stability of the exchange rate	Rule of law
Budgetary balance in % of GDP		Fight against corruption
Public consumption		
Literacy rate		
Degree of openness of the economy		

a. Choice of variables

(Signs) results expected from the different variables are as follows:

- GDP per capita: supposed to measure the size and wealth of the market (GDP). The expectation of this variable is positive.
- Growth rate of real GDP: very close to the previous variable which is an indication of good health of the economy, its discount sign is positive
- Change in the effective exchange rate: it measures the external competitiveness of the countries from CEMAC. Its effect is ambiguous. The appreciation of the national currency makes its incoming FDI less interesting; its depreciation is rather attractive.
- Annual inflation rate: high inflation rate discourages FDI; a negative sign is anticipated.
- Domestic investment: the investment rate indicates the level of general climate of business with a positive sign expected.
- Public consumption: measure the degree of intervention of State in economy. The risk of crowding out the private sector by the State. A negative sign is expected for this variable.
- The balance budget: if it is positive it is a budgetary surplus that reassures investors' confidence. However, if it is negative it is a deficit that worries the business community since the State is going to raise taxes to finance its deficit. The expected sign of this variable can either be negative or positive.
- External debt (debt): negatively affects the level of incoming FDI since an increase can be interpreted as an increase in future of compulsory levies to finance the debt service.
- Service of the external debt: it plays the same role as the external debt, above.

- Coverage in months of imports: indicates the margin of maneuver that a country can have when its international reserves are important. The expected sign is positive
- Degree of openness of the economy: it positively influences inbound FDI since investors are often involved in the tradable goods sectors.
- Literacy rate: measuring the quality of the work force or human capital factor of motivations for MNF to establish abroad. The expected sign is positive.
- The governance indicators expressed on a scale of [-2, 5+2, 5] where -2, 5 means very bad governance and +2.5 good governance. Its sign depends on both terminals. Good governance positively affects foreign direct investment. They are coded as follows: freedom of expression, political stability, regulation quality, functioning of the State, the rule of law, and corruption.

b. The Model Specificatio

The model chosen is similar to those of Sader (1993), Faouzi (2004), Batana (2005), Dupuch & Milan (2002), and Andreff W. and Andreff M. (2003)

The estimated equation is denoted by:

$$FDI_{it} = \alpha_0 + \sum \alpha_{it} x_{it} + \epsilon_{it}$$

FDI<sub>it</sub> = foreign direct investment flows;

α<sub>0</sub>= coefficients of estimates;

x<sub>it</sub> = vector of explanatory variables;

ε<sub>it</sub>= random term

This study is conducted on a sample of six countries (Congo, Gabon, Central African Republic, Equatorial Guinea, Cameroon and Chad) composing the economic and monetary community of Central Africa (EMCCA) to show the difficulties emanating from Congo and countries in the CEMAC franc zone. The econometric estimation will be done on panel data for the period 1993-2004 on Eviews 3.0 software.

Initially, one had the Hausman test using the STATA 8 software. Table 2 gives the main results of the Hausman test whose hypothesis is the lack of randomness; the second table estimates the fixed effect model.

The Hausman test results allow to accept the zero assumption of lack of randomness, because Prob > chi (2) equal to 0.998 is superior to 5%. One can therefore conclude that the presence of a specific fixed effects model. And then the fixed effects model estimated is written as follows:

$$Y_{it} = \mu + \beta'x_{it} + \mu_i + \omega_i + \epsilon_{it}$$

Y<sub>it</sub>= endogenous variable

x<sub>it</sub>= explanatory variable

ε<sub>it</sub>= residue term classic mistake

μ<sub>i</sub>= mute individual variable

ω<sub>i</sub>= temporal dummy

c. Data Sources

Data comes mainly from: World Bank: World Tables, World Development indicators, IMF: international financial statistics, BEAC reports, studies and statistics Bulletins, UNCTAD: WIR (World Investment Report). The 6 countries of the CEMAC are concerned and the period covered was from 1993 to 2004.

## d. Presentation of Results and Interpretation

Table 2. Hausman specification test.

Hausman eq1	Coefficients			
	(b)	(B)	(b -B)	Sqrt(diag (V_b-V_B))
EQ	Eq1		Difference	S.E.
GDP	-.0031858	-.0035944	.0004086	.0022405
Annual inflation rate	-.4296524	-.3093044	-.120348	.6613122
Domestic investment	1.289115	1.395163	-.1060477	.4454948
Change in the effective exchange rate	-.6290397	-1.067139	.4380993	.6250056
Growth rate of real GDP	-.6463652	-.7153627	.0689975	.0418346
The Balance budget	-.4434675	-.4151472	-.0283203	.1668278
Ordinary balance in % export	1541117	.1649408	-.0108291	.0603584
Public consumption	-.703194	-.5427365	-.1604574	.2402159
The balance budget	-1.024525	-1.007673	-.0168522	.6981009
External debt	-.1194265	-.1133866	-.0060399	.0621956
Servicing the external debt	.2382246	.1970199	.0412047	.3259347
Coverage in month of import	1.78425	1.744326	.0399238	1.016171
Openness Degree of the economy	.0620481	.0360788	.0259693	.0276531
Literacy rate	.3119963	.2778297	.0341666	.1687213
Freedom of speech and responsibility	.0288451	-2.133513	2.162358	7.080829
Political stability and absence of violence	2.654134	3.792574	-1.13844	3.666369
Functioning of the state	-.0615189	.0489111	-.11043	.1257317
Quality of regulation	-15.44646	-13.55218	-1.894272	3.248487
Rule of state	16.45761	19.38756	-2.929954	11.81224
Fight against corruption	-.1434812	-3.555857	3.412375	2.966207

b = consist under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

Chi2 (19) = (b - B)[(V\_b-V\_B) ^ (-1)] (b-B) = 4.34

Prob > chi2 = 0.9998

Table 3. Estimation of panel with specific fixed effects results.

Variable	Coefficient	Std-Error	t Statistic	Prob.
GDP	-0.006470	0.004991	-1.296400	0.2062
Annual inflation rate	-0.712670	0.496452	-1.435526	0.1631
Domestic investment	0.272853	0.262793	1.038284	0.3087
Change in the effective exchange rate	-0.211789	0.264714	-0.800068	0.4309
Growth rate of real GDP	-0.537224	0.138451	-3.880246	0.0006
Balance current in % GDP	-0.571774	0.148781	-3.843048	0.0007
Ordinary balance in % export	-0.004073	0.020541	-0.198274	0.8444
Public consumption	0.057544	0.317686	0.181136	0.8577
The balance budget	-0.319128	0.431730	-0.739184	0.4664
External debt?	-0.129179	0.046559	-2.774550	0.0101
Servicing the external debt	-0.047844	0.209134	-0.228771	0.8208
Coverage in months of imports	-2.004701	1.290825	-1.553039	0.1325
Openness Degree of the economy	-0.019043	0.086722	-0.219590	0.8279
Literacy rate	0.632967	0.722262	0.876368	0.3889
Freedom of speech and responsibility	2.298070	7.198185	0.319257	0.7521
Political stability and absence of violence	-8.666829	3.491470	-2.482287	0.0198
Functioning of the state	0.165224	0.231337	0.714212	0.4815
Quality of Regulation	-0.060130	5.815304	-0.010340	0.9918
Rule of Law	-2.415805	10.16673	-0.237619	0.8140
Fight against corruption	-0.639843	5.670104	-0.112845	0.9110

Fixed Effects	
Cameroon	-38.28466
Congo	-32.18892
Gabon	-2.774991
Equatorial Guinea	25.21020
Republic of Central Africa	-22.27600
Chad	23.52798

R - Squared	0.973965	Mean dependent var	10.27550
Adjusted R-squared	0.927475	S.D. dependent var	19.84347
S.E. of regression	5.343941	Sum squared resid	399.8078
Log likelihood	- 98.00349	F-statistic	27.56555
Durbin-Watson stat	3.070654	Prob (F-statistic)	0.00000

Dependent Variable: FDI

Method: Pooled Least Squares

Date: 03/20/08 Time: 14:31

Sample (adjusted): 1996-2004

Included observations: 9 after adjusting endpoints

Total panel (unbalanced) observations 40

The value of Fisher statistic which is 27.56555 tells us about the overall significance of the model and this high value with a probability implying that the model is globally significant. The adjusted coefficient of determination has a value of 0.927475 that tends towards unity. This means that the model has a strong explanatory power.

#### *Results (signs) of the explanatory variables*

The sign of the various explanatory variables of FDI are the following:

- GDP per head has a negative sign, which is contrary to our expectation since the size and wealth of the market are expected to attract FDI.
- The negative coefficient of the inflation rate is consistent with our expectation.
- The positive sign of the domestic investment rate is consistent as it shows the level of business climate.
- The variation of the effective exchange rate having an ambiguous effect, its negative sign means depreciation can be attractive to foreign investors.
- The real GDP growth rate has a negative sign, which is contrary to the one expected since it is expected that the index of healthy attracts more FDI.
- The current balance in % of GDP has ambiguous effect. The positive sign means a surplus and the negative sign (which is in this case) a deficit of the current account.
- The current balance in % of exports is an indicator of financial risk. Its negative sign means an increased financial risk when it covers low exports.
- Public consumption has a positive sign, which is otherwise because the risk of crowding out the private sector is high when there is too much State intervention.
- The budgetary balance in % of the GDP has a negative sign, which means that this is a deficit worrisome for the business community since it is expected that the Government increases taxes to finance its budget deficit.
- External debt (debt) has a negative sign, consistent with that expected since one expects increased compulsory levies to finance the debt service.
- Debt service in % of exports has a negative coefficient, likely as the one from external debt.
- The months of import coverage rate has a negative sign, which is contrary to the logic, since it indicates the margin of maneuver that a country can have when it has significant reserves.
- The degree of openness of the economy has a negative sign, contrary to what is expected.

- The literacy rate has a positive sign, which is normal since a qualified workforce is an attractive factor for the WWF.
- Freedom of expression and the functioning of the State (dark) have positive coefficients; efforts have been made in relation with the two indicators to attract FDI.
- The quality of regulation, the rule of law, political stability and corruption negatively affect FDI (negative sign).
- All of the fixed effects are negative except for Equatorial Guinea.

## 6. Statistically Significant Variables

There are four(4) statistically significant variables at 1% level:

The growth rate of real GDP: real GDP growth rate is a good indicator of good health of an economy. When this rate is positive, this bodes well and it is a sign that can attract FDI. However, our result showed a negative sign which is contrary to our expectation. Most studies show a positive correlation between foreign investment and the rate of economic growth (Demurger 1998, Andreff M & W 2004, Otrou 2005). The research of a market has appeared in most econometric tests, as the most important variable determining FDI in the CEEC. However our result is not in conformity with those studies cited since the correlation is negative. But it may be noted that this growth is not observed because it rarely exceeds 5% except for countries that recently became oil-producing such as Equatorial Guinea.

Current balance as % of GDP: it is statistically significant because after the restoration of the external competitiveness of the sub-region's economies following the devaluation in January 11<sup>th</sup>, 1994, this important indicator still negatively affects FDI because the CEMAC countries still recorded negative balances.

External debt (debt): This variable looks at the financial risk of a country, the debt negatively affects FDI. The CEMAC countries being highly indebted and some are subject to the HIPC as the Congo with a completion point floating over a number of years before being reached in April 2006.

## 7. Conclusion and Recommendation

From the analysis above, it can be concluded that there is no consensus in the literature devoted to the study of the

relationship between FDI and economic growth. The different researches led to mixed conclusions. Thus, some authors found that FDI had a positive impact on economic growth, others concluded on a negative impact, and others found that there is no impact at all between FDI and economic growth. These differences are explained in the assessment methods used and the characteristics of the host country.

One used a battery of twenty variables to explain the attractiveness that countries from the CEMAC in particular Congo can have toward FDI. It appears from our econometric estimation that only some of those variables are statistically significant. Its real GDP growth rates, current balance as a percentage of GDP, external debt, the political stability of the countries of the CEMAC. For most, these results confirmed previous studies. But poor governance variables constitute obstacles to attract more FDI.

How to make Congo and CEMAC countries to be more attractive place for foreign direct investment?

A few tracks of solutions can be envisaged. By taking into account a stable political and economic environment that can significantly affect the long-term mechanism. However, the study showed an absence of causation of FDI to economic growth, despite taking into account the political context and economic measures (steps, political stability, devaluation of the FCFA and combining their effects). Therefore, it is noted that privatization, political stability, FCFA devaluation, and their combined effects are not enough to make FDI a catalyst for economic growth in Congo. Here are some recommendations for increasing FDI in Congo.

The State must consolidate political stability and create a macroeconomic framework conducive to the emergence of business. To do so, it must first strengthen the performance of public administration so that at the same time service the general interest and development of the private sector. Secondly, the State must modernize the judicial system; this requires the strengthening of professional's capacities of justice in economic law, business law and alternative methods of dispute settlement. Finally, the State must revise and perfect the investment code so as to make it more attractive on one hand and strengthening the capacities of training institutions (center of investment promotion and entrepreneurship (CFE) center) responsible for promoting FDI on the other hand. Economic growth would be stronger if this FDI were able to take substantive action on it. To do this, the Government must revise the investment code to make it more flexible and more attractive. This State indeed could attract more foreign investors and thus increase the flow of FDI in Congo.

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## List of Acronyms and Abbreviations

PVD:	Developing Countries Channel
ADB:	African Development Bank
BEAC:	Bank of Central African States
CEMAC:	Economic and Monetary Community of Central Africa
UNCTAD:	United Nations Conference on Trade and Development
COBAC:	Banking Commission of Central Africa
IMF:	International Monetary Fund
FMN:	Multinational Firm
FDI:	Foreign Direct Investment
SAP:	Structural Adjustment Programme
CEEC:	Central and Eastern Europe
GDP:	Gross Domestic Product
HIPC:	Heavily Indebted Poor Countries
WAEMU:	West African Economic and Monetary
WIR:	World Investment Report
CFE:	Training Business Center, Congo (Brazzaville)
OECD:	Organization for Economic Co-operation and Development
CFA:	Financial cooperation in Africa

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