The Impact of Foreign Direct Investment on the Economic Growth of Cameroon

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ABSTRACT

Economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Many developing countries strive to attract investment in order to boost their economy. Since the independence of Cameroon in 1960, inflow of Foreign Direct Investment (FDI) has accounted for a substantial part of the overall economy. In spite of many foreign investments in the development of infrastructure in Cameroon over years the effectiveness seems to be biased. This study explores FDI and its effects on the economic growth in Cameroon within the period 1977-2010. Analyzed indicators such as FDI, government spending and inflation rate expressed strong commitment towards economic growth in Cameroon. The outcome from the regression analysis showed some similitudes with the literature review supporting that FDI generates economic growth in Cameroon in primary sector.

Keywords: Economic growth, Foreign Direct Investment, Cameroon, Sector, GDP.

ÖZ

Ekonomik büyüme belli bir zaman aralığında ekonominin kapasitesinin artırılması ve böylece daha çok mal ve hizmet üretilmesi anlamına gelmektedir. Pek çok gelişmekte olan ülke ekonomilerini büyütmek adına yatırımı teşvik etmeye çalışmaktadırlar. Kamerun'un bağımsızlığından itibaren net yabancı yatırımın ülkeye girişi ekonomisi için oldukça önemli bir yer tutmaktadır. Yabancı şirketlerin gerçekleştirdikleri çok sayıdaki projelere ve alt yapı çalışmalarına rağmen bu çalışmaların yaşam standardını artırıp artırmadığı hala sorgulanmaktadır. Bu tezde amaçlanan net yabancı yatırımın ekonomik büyüme ile ilgili etkilerini 1977 – 2010 arası dönem için Kamerun örneğinde araştırmaktır. Araştırma için kullanılan veri seti Dünya Bankası veri tabanından elde edilmiştir. Çalışmada kullanılan değişkenler Kamerun'un ekonomik büyümesinde güçlü bir taahhütte işaret etmektedir. Regresyon sonuçları literatürdeki çalışmalar ile benzerlik göstermektedir. Buna göre net yabancı yatırım Kamerun'un bazı ekonomik sektörlerinde ekonomik büyümeye yardımcı olmaktadır.

Anahtar kelimeler: Ekonomik büyüme, net yabancı yatırım, Kamerun, sektör, GSYİH.

To my Family

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LIST OF SYMBOLS OR LIST OF ABBREVIATIONS

FDI	Foreign Direct Investment
GDP	Gross Domestic Product
IMF	International Monetary Fund
ADF-Test	Augmented Dickey Fuller Test
MNEs	Multinational enterprises
HIPC	Heavily Indebted Poor Countries
IBRD	International Bank for Reconstruction and Development
SAP	Structural Adjustment Program
OECD	Organization for Economic Co-operation and Development
ODA	Official Development Assistance
NGO	Non-Governmental Organization
DAC	Development Assistance Committee
EADI	European Association of Development Research and Training
CONAC	Cameroon National Anti-Corruption Commission
AFRODAD	African Forum and Network on Debt and Development
BLUE	Best Linear Unbiased Estimator
SSA	Sub-Sahara Countries
CPI	Consumer Price Index
CEMAC	Economic Community of Central African States

Chapter 1

INTRODUCTION

1.1 Rationale of study

Foreign direct investment (FDI) played an important role in the development of many countries around the world and accounted for a significant part for developed countries in terms of growth of the economy. Thereby, Cameroon as a developing country seeking to alleviate poverty attracts foreign investments in order to benefit advantages from this specific type of investment. In spite of the relative rise in amount of investment, Cameroon still faces continuous rate of unemployment and poverty, thereby benefits of FDI on the economic development of Cameroon have begun to be queried. It is admitted that FDI has an essential role in the economic growth of countries in all continents through, for instance, the value added and total factor productivity growth. FDI increasingly comprises the technology transfer and the creation of employment Mohammad and Rizvi (2009). In 1960s many African countries gained their independence and began to organize their economies. For the case of Cameroon, during that period the government applied a five–year plan that allowed to control and foster the creation of many public and private companies.

To face this crisis, Cameroon adopted a new code of investment in 1990 and multinational enterprises (MNEs) started to be interested for re-investing in the country. Given the fact that MNEs should bring technology transfer to the country, the enhancement of economic growth due to the presence of these big firms was

expected. Nevertheless, FDI continued to play a major role in the development of the country representing only 0.3% of GDP in 1977 it increased to pick at 3.88% in 1985 over the period of study, the average share of FDI was around 1.15% of GDP; However, increase of the inflow of FDI, over period 1988-1994, did not lead to an increase in the real growth of GDP with the same trend. Some progress appeared between 2003 and 2008 primarily as oil prices increased. Cameroon's real GDP growth rate move to 2.1% in 2009 but was among of the lowest in Africa at that time compared to other Sub-Saharan African (SSA) countries. Countries like Nigeria, Ghana, and Liberia had experienced real GDP growth rates of 3%, 3.6%, and 4.7% respectively, in 2009. Fortunately, the attainment of the Highly Indebted Poor Countries (HIPC) decision point led to the debt cancellation of Cameroon by many donors such as the members of Paris club, the reduction in debt service should allow for a significant increase in poverty reducing expenditures, and a significant reduction in the external debt burden of Cameroon towards the International Bank for Reconstruction and Development (IBRD) according to Afrodad (2010). Subsequently, structure of the Cameroon's economy has been changing over time.

Figure 1 shows the trend of FDI and GDP growth rate between 1977and 2010. The curve of FDI inflows varied substantially until the devaluation of Cameroon's currency that led to increase the level of investment and stabilize the share of FDI in the economy above 3% of GDP. On the other side, the growth of GDP follows a relative stable variation with a peak before the economic crisis in 1986.

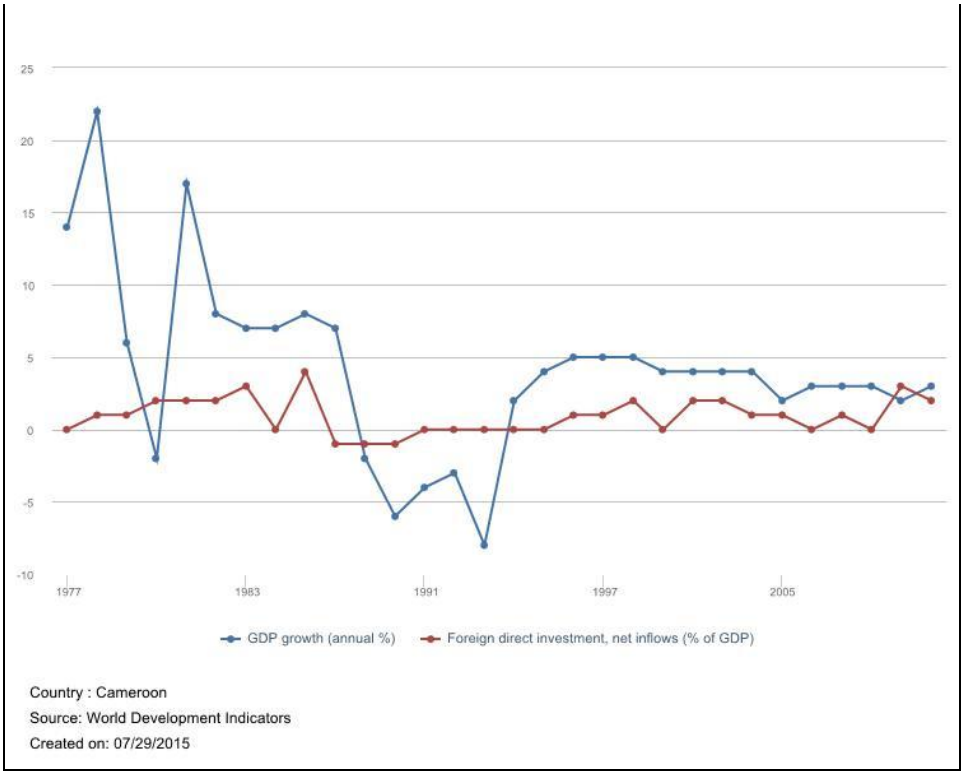

Figure 1: GDP growth rate and FDI

Since the mid of 1970s and the oil boom, economy is no longer only driven by agriculture but also by oil products. The GDP in Cameroon started to experience a constant and positive increase at the beginning of 1990s due to huge inflow of investment and privatization of many public companies. Since 1994 the economic growth has been always positive. Nonetheless, this economic leap forward was not enough to impact significantly on poverty reduction and economic development. In SSA countries, about 70% of population lives with less than $2 a day, thereby brings Non-government organizations, (NGOs), and Government to lobby for FDI.

This thesis examines the relationship between economic growth and FDI by focusing not only on the overall economy but on individual sectors as well. The main purpose of this study is to show the impact FDI on the economic growth of Cameroon over the period 1977-2010.

1.2 Aim of Study

The purpose of this study is to assess the impact of FDI on the economic growth of Cameroon over the period of 1977-2010 and to determine how the economy has been affected by the foreign investment through this interval of time. This is the main contribution of the thesis, however, the work will also try to bring out this impact on different sectors of the economy that is, agricultural, industrial and services sectors.

1.3 Structure of Study

This thesis will be split in six chapters. The first chapter is the introduction. Chapter 2 will serve as literature review about some authors' research who previously studied about the pros and cons of FDI in developed and developing countries. Chapter 3 deals with Cameroon's history and economy. Chapter 4 defines the data and methodology applied through the thesis while chapter 5 gives the empirical results found. Chapter 6 will give details about the impact of FDI in different sectors of the economy and finally Chapter 7 consists of conclusion and suggestion.

Chapter 2

LITERATURE REVIEW

Adewumi (2006) studied the impact of FDI in developing countries over 1970-2003. By using regression analysis with economic growth as dependent variable and FDI, gross capital formation and net export as explanatory variables; he found out that effectiveness of FDI is positive in many countries: Nigeria, Egypt, Mali, Botswana and Burkina Faso but only Angola experienced positive and significant effect. However, several others countries namely Ivory Coast, South Africa and Tunisia display negative impact of FDI on the economic growth.

Alvaro (2003) investigated the impact of FDI in the manufacturing sector, tertiary and agricultural sectors in 47 countries for the period 1981 to 1999. Among countries of study, most of them were developed countries members of the Organization for Economic Co-operation and Development (OECD). By regressing economic growth against some explanatory variables like initial income, capital, FDI, government spending, inflation and in spite of few data for some countries, she found out that foreign direct investment has various effects on the growing of economy. Whilst primary sector encounters negative issue, secondary sector tends to be positive, while it is ambiguous in the tertiary one.

De mello Jr (1999) investigated the pros and cons of FDI in China and India at the beginning of 2000s. Using the cost benefits analysis by confronting advantages and

drawbacks in both countries, found that in the case of China, since 1979 this country has received a huge amount of FDI pointing just behind USA and leading all others developing countries. As attracting factors for foreign companies China has a low cost of labor force, many resources available, a great openness to world trade and the facilitation to enter international markets. However the unequal investments in different sectors and barriers in administration handicap the country to get a more substantial benefit from FDI. For the case of India, having many economy and demography features with China, the country encounters almost the same advantages with a huge effect of IT Revolution and English Literacy. However the poor road conditions dealing slow-moving bureaucracy and the multiplicity of languages render FDI not as easy as it should be. As a result for both countries the positive effects of FDI overcome the negative ones and lead to say that China and India are good FDI takers-countries.

Weisbrod and Whalley (2011) observed over the period 1990-2008 with a panel data for 13 African countries (Angola, Niger, Botswana, Nigeria, Democratic Republic of Congo (DRC), South Africa, Ethiopia, Sudan, Ghana, Tanzania, Kenya, Zambia and Madagascar) that countries like Zambia, Nigeria and Sudan saw additional GDP growth relative between 2000- 2008 for about 0.5 percentage points due to increase of Chinese investments with Zambia having the largest part of these inflows. Initially, the Democratic republic of Congo received just a little share of these FDI, but this picked up significantly after 2005, contributing to more than 0.10% in 2006. Although strongly implicated in the development process of Angola, Chinese companies counted for around 0.05% GDP growth over the 2003 to the end of 2000s period. However Sudan faced negative flow from china FDI in 2008. Between 2005 and 2007 and after the financial crisis in 2008, inflows of FDI from China have

increased further, and seem to continue in a nearest future to contribute in a large part of Africa's growth.

Khaliq and Noy (2007) analyzed for 12 sectors from 1997-2006 in the economy of Indonesia, the effectiveness of FDI. They discover by using fixed effect estimation methodology that with a lack of human capital but by adopting an export promotion policy, they pointed out that, FDI has a positive impact on the aggregate economy but taken sector by sector, some sectors show negative impact chiefly those implicated in the extractive area and mining sector. Popli and Singh (2012) after studying the effects of FDI in retail sector in India, found out cost of living of Indian middle class and development of new class of young workers are seen as the principal reason for optimism in the increase in the Indian retail market. All of these beliefs on the increase in Indian retail sector have led to create and powerful pressure group for opening and encouraging FDI in this sector. India with its high rate of growth has become a promising market for retailers worldwide. Given interdiction for foreign investors to invest in big retail stores but the possibility to reach the international market through American instruments and openness of FDI in 'Single Brand Retailing' in 2006, authors try to show the impact of multi brand FDI in retail sector.

Monastiriotis and Alegria (2011) investigated connection between foreign companies and domestic firms in Bulgaria. According to their research, FDI in Bulgaria produce important and positive spillovers. They also unveil that notable hysteresis and technology bias effects for FDI spillovers of all origins may be influenced by some domestic factors. Taken in a simple trade perspective, FDI and trade can be seen as

substitutes, but FDI being affected by several factors such as specific assets of firm and technology, they may also be complements. E.g. a firm-specific asset is firm specific know-how (obtained through R&D).

Noland (1999) analyzed obstacles faced by some foreign companies when investing in Japan compared to USA during 1990s. Using effectiveness approach author found that share of FDI in Japan is lower than in USA due to bureaucracy and individual behavior. The finding stipulates that the fixity of price, distribution channel of goods are more conservative in Japan; vertical mergers and the imperfection in capital markets contributed to damp FDI in Japan during that period.

Chapter 3

BACKGROUND AND CAMEROON'S ECONOMY

3.1 Description of Cameroon

In 1884, the part of Africa named Cameroon today was colonized by Germans and became a protectorate. Germany organized the local system of administration and launches the milestone of capitalism economic system in the country by constructing many infrastructures such as bridges, railways and developed the agriculture and international commerce. The defeat of Germany in World War I and the treaty of Versailles in 1919 split Cameroon in two zones. The great part of the territory about 85% has been ceded to France and 15% to the west side close to Nigeria to Great Britain. After World War II and the international movement of decolonization around the world, Cameroon gained independence in 1960.

Often described "Africa in miniature" since it displays most of the climates, ethnics diversity and geographical features in Africa, Cameroon is located south of the Sahara desert with a population of 21,150,878 in 2012 estimated and land surface area of 475,440 sq.km. It is located in the Central of Africa. It shares its border with Chad Republic to the North, Federal republic of Nigeria in the west side, Central Africa Republic at its Eastern border and is conterminous to the Republic of Gabon, Equatorial Guinea and republic of Congo in South.

The two official languages are French and English and the local currency is CFA franc that has a fixed parity with Euro (1euro = 657.957 FCFA) and is also used by thirteen other former French colonies in Africa. Cameroon is a member Economic and Monetary Community of Central Africa (CEMAC), African Union (AU) and many others international organizations. Given the location of the country in the gulf of Guinea, Cameroon debouches goods for two landlocked countries Chad and Central Africa Republic. With a GDP representing about 60% of CEMAC, Cameroon plays the leading role in this area. Economic city Douala has the most important port of the region and the overall economy of the region is oriented to that port.

3.2 Cameroon's Economy

From 1960 to 1979 the economy was centralized with many public companies essentially focused on agriculture and oil sector. Because of economic crisis in 1980s and the fall in oil prices, the government liberalized all sectors and privatized many public companies. However due to the high level of bribery, mismanagement and the low level of productivity in the 1990s, Cameroon experienced a weak level of development. Nonetheless in 2006 when Cameroon finally attained the HIPC decision point, the government elaborated a new plan of growth consisting of construction of new hydroelectric dams (Lom Pangar and Memvele) to resolve the problem of energy and many other infrastructures to be industrialized by 2035.

In fact, domestic as well as foreign investors are still faced with burdensome procedures for importations and exportations of goods. Port of Douala is constantly crowded and the bureaucracy does not help to decongest it. Also, the poor level of infrastructure and the shortage of electricity are important problems for the economy

growth. Police harassments and bribes discourage many foreign investors who want to invest in the hinterland. Economy of Cameroon experienced a decrease in the GDP growth following all of these problems encountered by the country. So, Government launched a national anti-corruption program (CONAC) to reduce mismanagement and attract back more foreign direct investment. The effect of this program has been useful because in 1999 the GDP of country reached more than 10 billion US dollars after being 8 billion. This increase in GDP led to an overall economy growth the next years.

Population is one of the main determinants in the growth and development of any country. The impact of population growth can overcome economic growth. Given the fact that GDP per capita emphasizes the level of population, effects of FDI will also be measured by the population growth rates. When population grows faster than economic growth it could become more difficult for a country to raise the standard of living and contrariwise negatively affects health care, proprietorship, energy consumption and jobs opportunity. In fact, the impact of population influences the growth of an economy by affecting the labor forces participation rate and GDP per capita. For the case of Cameroon, population rose from 8 million inhabitants in 1977 to around 20 million in 2010 while GDP experienced many up-and-downs during the same period.

3.3 Economy and Unemployment

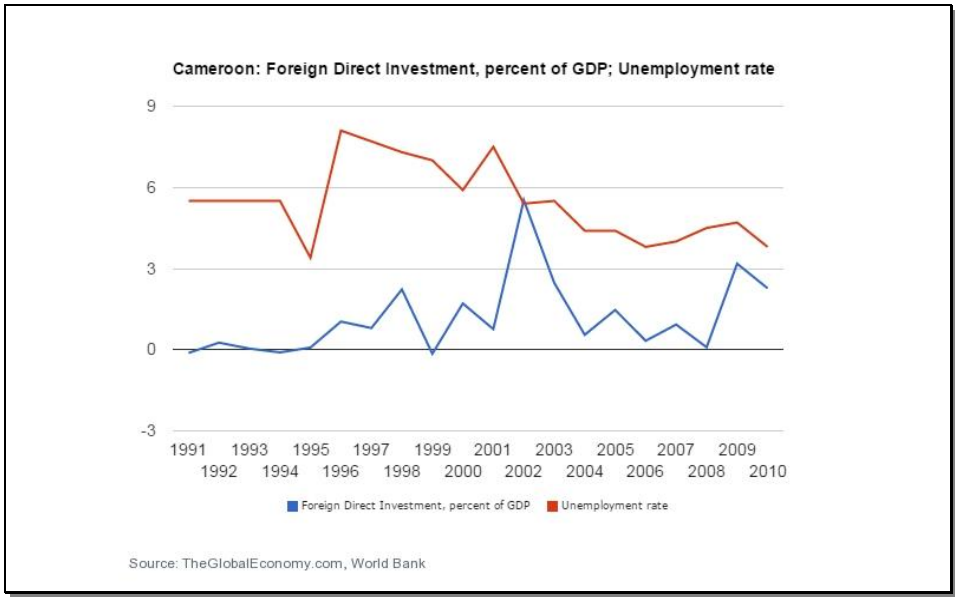

Figure 2: FDI and unemployment rate 1977-2010

Given the chart above Foreign Direct investment seems to have an ambiguous effect on creation of employment. Between 1991 and 1994 with a FDI close to 0.5% of GDP, the level of unemployment was stable at around 5.5%. In 1994 due to devaluation of the domestic currency, many multinationals invested in the country and the unemployment rate decrease to 3.2%. However, in the following years, in spite of constant increase of FDI, unemployment increased slightly to be stable at around 6% with a peak at 8% in 2001. Nevertheless, since 2000s and the massive investment from China's companies, unemployment rate fell to 4%. This figure elucidates that FDI taken alone did not have a significant impact to alleviate the rate of unemployment. Thus, the creation of employment is not only due to the amount of influx of FDI but also probably to the capacity for a country to control Technological Transfer and to protect domestic laborers. In fact, many Chinese companies by investing in Cameroon also import many workers from China and don't significantly help to reduce unemployment in the country.

Chapter 4

DATA AND METHODOLOGY

Over the years, FDI has become increasingly important for many developing countries seeking to boost their economy. Given the fact that the growth of economy is the combination of certain economic factors, the effect of FDI in Cameroon required a depth investigation of main factors of economy and the evaluation of these determinants on Cameroon's economic growth.

4.1 Data

To analyze the effect on FDI on Cameroon's growth, the data covers set of the thesis the period 1977-2010. This period has been chosen to encompass the change in the political system that occurred in 1982 and to reflect some major economic issues experienced by the country: Economic crisis in 1986, devaluation of the local currency in 1994 and the attainment of HIPC in 2006. Alongside FDI as the core independent variables, other variables are inflation and government spending, dependent variable is measured with the growth rate of real GDP.

Economic Growth data was taken from World Bank Indicator (WBI) which is one of the benchmark for economic information around the world**.** Economic growth displays the evolution of real per capita GDP (constant 2005 US dollars).

Foreign Direct Investment that measures FDI inflow is the flux of investment (10 percent or more of voting stock) made to obtain long term benefit in companies by an

investor from another country and was obtained from World Bank Indicator. In order to get information for each sector, the following calculation was made by dividing the percentage of global FDI in GDP by the percentage of added value for each sector. (%FDI of GDP / value added in each sector as % of GDP).

Inflation represents the percentage changes in the price indices such as GDP deflator. Government Spending is the consumption, transfer and expenditures made by government. It is taken as a percentage of GDP. Source: World Bank Indicator.

4.2 Methodology

The data is a time series data with Cameroon as country of study over 1977-2010. Time series data analysis can be defined as a suite of measurements occurred at (ordinarily- same-interval) systematic moment in time. It is common for economic time series data to have autocorrelation and unit root. Therefore, we initially test our data for these issues.

4.2.1 Autocorrelation

$$E(u_i u_j) = 0 \quad i \neq j \qquad (4.1)$$

In time series data the probability of having correlation over years of study is quite evident. For example, the repercussions of an economic crisis can be felt over many years.

4.2.2 Stationarity

Given the relationship between our economic factors, we are dealing with a certain autocorrelation in our model. In order to face this issue, we need to find if our economic data expansion follows a unit root.

To do so, usually the Dickey Fuller test is applied but given the possible correlation in the errors terms, we will use the Augmented Dick Fuller (ADF) test.

4.2.3 Augmented Dickey Fuller (ADF), Test

Developed by Dickey and Fuller in 1979, ADF test is based on finite-order AR models, the orders of which are assumed to be known. The test was later extended to allow for any finite ARMA processes of unknown order. ADF tests are good for models broader than those considered.

The ADF test is similar to DF test except the fact it is applied to the following model:

$$Yt = u + \Phi_1 Y_{t-1} + \Phi_2 Y_{t-2} + \ldots \Phi_p Y_{t-p} + e_t \quad (4.2)$$

Where u is a constant, Φ is the coefficient on lagged variable, t is the period; e is the error term and p is the lag order of the autoregressive process.

In order to test the ADF, the trend option will be used because economy grows over time. Also as suggested by Gujarati (2003) by calculating autocorrelation function (ACF) the length of time series should be divided by three or four. In our study, from 1977 to 2010, we count 33 years for observations, so we are going to use for 'lags' 8 to 11 years.

The augmented Dickey–Fuller test performs Dickey-Fuller test that a variable follows a unit-root process. The null hypothesis is the presence of unit root; the alternative hypothesis is stationary process.

$$\Delta y_t = \theta y_{t-1} + u_t \quad (4.3)$$

H_0: $\theta = 0$

If we have a unit root meaning variables are not stationary, we will have to find a differentiation to solve the problem (i.e. we are going to use cointegration to face the issue).

H_1 $\theta < 0$

Otherwise, if the data is not following a unit root (variables are stationary), hence, no interest to test for a cointegration (i.e. the data is stationary and no need to be differenced).

4.2.4 Cointegration

In economics, two variables will be said to be cointegrated if they have a long-range and equilibrium relationship between them. Economic theory is often expressed in equilibrium terms. Two non-stationary time series are cointegrated if they tend to follow the same path over years. We notice that the economic growth and FDI are non-stationary at level, whereas their first differences are stationary. In terminology used in the time series literature, each series is said to be "integrated of order 1" or I(1). If the two non-stationary series move together over years then we say they are "cointegrated". The presence of cointegration would lead to the statistically significance of the test. The null hypothesis is the non-stationary of the residuals. Given the fact that OLS requires the variables to be covariance stationary; Analyze of covariance gives a plan to estimate, infer, and interpret analysis when variables are moving.

In time series, rather than showing covariance stationary, many economic variables like FDI appear to be first-difference stationary. That leads to only the 1st difference is stationary not time series. This process is often recognized as integrated processes

of order 1, or I(1) process. The random walk is the reputed model of a first-difference stationary process. As a variable Ωt it can be shown as

$$\Omega_t = \Omega_{t-1} + \epsilon_t \quad (4.4)$$

Where the ϵ_t that can represent openness is independently and identically distributed consisting of a variance σ^2 and mean zero. Importance of these concepts comes to the fact that although estimators are well conducted, we do not meet any standard asymptotic distributions by applying to covariance-stationary data when tested to I (1) processes.

For cointegration, we should first specify the number of lags to include. Order of the corresponding Vector Error Correction Model (VECM) is constantly one less than the Vector Autoregressions (VAR). Vector error-correction (VEC) automatically makes this adjustment, so we will still refer to the order of the latent VAR.

4.2.5 Model 1: Impact of overall FDI on the economy

$$Ln\text{growth}_t = \beta_0 - \beta_1 ln\text{FDI}_t + \beta_2 ln\text{INFL}_t + \beta_3 ln\text{Govsp}_t + \varepsilon_t \quad (4.5)$$

Where,

- $Ln\text{growth}_t$ representing Average real annual per capita growth rate
- $ln\text{FDI}_t$ summarizes Foreign Direct investment inflows
- $ln\text{INFL}_t$ is based on CPI (consumer price Index)
- lnGovspt encompasses of all Government spending
- ε_t represents error terms that varies over time

The suffix $_t$ stand for year to precise we are dealing with time series

4.2.6 Model 2: Impact of sector of FDI on overall economy

$$\text{Lngrowth}_t = \beta_0 + \beta_1 ln\text{CONTROL}_t + \beta_2 ln\text{FDIPRIM}_t + \beta_3 ln\text{FDIMANUF}_t + \beta_4 ln\text{FDISERV}_t + \varepsilon_t \quad (4.6)$$

Where,

- CONTROL stands for Government spending, and inflation
- $FDIPRIM_t$ represents inflows of foreign direct investment in the primary sector.
- $FDIMANUF_t$ represents inflow of foreign direct investment in the manufacturing sector.
- $FDISERV_t$ represents inflows of foreign direct investment in the primary sector.

In Model 1 equation (4.5), the expected sign for inflation is negative, while the expected sign of FDI and Government is positive.

Economic growth is generally obtained from data on population and Gross domestic product provided by World Bank and Governments. In spite of the possibility for using other mains indicators of economy such as unemployment or productivity for our study, economic growth has the advantage that GDP for a long period can be easily found and also it is a measure to determine the quality of life, has the indirect potential to alleviate the rate of poverty in a country. In parallel, economic growth is affected by productivity, corruption political institutions and the level of instability.

Our first independent variable is FDI, which is nowadays one the most important indicator to assess the degree of openness of a country on the economic growth. So, it is evident to find out economic growth following the same path as FDI.

Inflation takes into consideration the purchasing power of the population that is directly linked to the level of unemployment and productivity. Hence, as economic

growth increases with increase of productivity factor, the rate of inflation tends to follow a different way. The total amount of money spent by the government seems to have an impact on the economy. Mainly for a country with a lack of industry like Cameroon, government spending should play a leading role in the stabilization of the economy.

In Model 2 equation (4.6), primary sector is the sector of an economy that deals with natural resources that means products are extracted or harvested from the earth. Generally, it comprises agriculture, mining, logging and fishery. Usually, this sector is the most important in developing countries. Unlike the previous sector, secondary sector includes any branch of activities producing finished product: manufacturing. Sometimes, this sector is split in heavy manufacturing and light manufacturing. These industries require a lot of energy, manufactory and machines to process raw materials into final products. The tertiary or services sector is to distinguish to other sectors insofar it deals with intangible goods. In fact, not only private companies are part of this sector, even government services and NGO's like research organizations can also be included in this sector. However for the purpose of our thesis, we are going to study services sector only in private firms. So, this sector consists of products from transportation, financial services, warehousing, health care, administrative services and social assistance.

Chapter 5

EMPIRICAL ANALYSIS AND RESULTS

5.1 Empirical tests

The inclusion of some economic factors together leads to different estimates due to various relationships between them. Hence, the impact of FDI on the economic growth of Cameroon over 1977-2010 will be assessed regarding other important economic determinants such as inflation and government spending. In this chapter, Model 1 will be used.

STATA software was used to run the regressions and to test for stationary and cointegration. Tables of economic growth and each sector of the economy are given in Appendix A.

5.1.1 ADF-Test

Table 1: Augmented Dickey Fuller logGrowth lag (11)

```
. dfuller    logGrowth, lags(11) trend regress

Augmented Dickey-Fuller test for unit root         Number of obs   =        22

                                 ———— Interpolated Dickey-Fuller ————
                 Test         1% Critical       5% Critical      10% Critical
               Statistic         Value             Value            Value
——————————————————————————————————————————————————————————————————————————
 Z(t)            -1.553           -4.380            -3.600           -3.240
——————————————————————————————————————————————————————————————————————————
MacKinnon approximate p-value for Z(t) = 0.8102

——————————————————————————————————————————————————————————————————————————
D.logGrowth |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
————————————+—————————————————————————————————————————————————————————————
  logGrowth |
        L1. |  -5.233385   3.369072    -1.55   0.159    -13.00248    2.535708
        LD. |    3.91454   3.195714     1.22   0.255     -3.45479    11.28387
       L2D. |   3.428622   2.959213     1.16   0.280    -3.395334    10.25258
       L3D. |   2.900566   2.679197     1.08   0.311    -3.277673    9.078805
       L4D. |   2.476146   2.391872     1.04   0.331    -3.039521    7.991813
       L5D. |   1.991297   2.088538     0.95   0.368    -2.824881    6.807475
       L6D. |   1.562501   1.774838     0.88   0.404    -2.530283    5.655285
       L7D. |   1.068181   1.451545     0.74   0.483    -2.279087     4.41545
       L8D. |   .6324825   1.160983     0.54   0.601     -2.04475    3.309715
       L9D. |   .2620218   .8548117     0.31   0.767    -1.709177    2.233221
      L10D. |   .0258647   .5072905     0.05   0.961    -1.143949    1.195679
      L11D. |   .0196709     .28675     0.07   0.947    -.6415758    .6809175
      _trend |  -.2160798   .1393671    -1.55   0.160    -.5374608    .1053012
       _cons |   13.19976   8.799663     1.50   0.172    -7.092296    33.49182
```

Table 1 tests the null hypothesis that economic growth follows a unit root sequence. According to ADF-test process, we reject the null if the p-value is less than or equal to 0.05 (5%), or 0.01 (1%) and 0.1 (10%) level of significance. As shown in the table, the approximate p-value is 0.8102 which is greater than any level of significance; so we fail to reject the null hypothesis that economic growth follows a unit root process and is not stationary.

Table 2: augmented Dickey Fuller Foreign direct investments lag (11)

```
. dfuller     logFORDI, lags(11) trend regress

Augmented Dickey-Fuller test for unit root         Number of obs   =        22

                               ---------- Interpolated Dickey-Fuller ---------
                  Test         1% Critical       5% Critical      10% Critical
               Statistic           Value             Value             Value
------------------------------------------------------------------------------
 Z(t)             -4.070            -4.380            -3.600            -3.240
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0070

------------------------------------------------------------------------------
D.logFORDI   |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    logFORDI |
         L1. |  -3.427134   .8419462    -4.07   0.004    -5.368665   -1.485602
         LD. |   2.203877   .7345879     3.00   0.017     .5099143     3.89784
        L2D. |   2.033999   .6608199     3.08   0.015     .5101456    3.557853
        L3D. |   1.595378   .4968733     3.21   0.012     .4495858     2.74117
        L4D. |   1.347232   .3814905     3.53   0.008     .4675129     2.22695
        L5D. |   1.028707    .331216     3.11   0.015     .2649215    1.792492
        L6D. |    .766319   .3627123     2.11   0.068     -.070097    1.602735
        L7D. |   .7065634   .4059509     1.74   0.120     -.229561    1.642688
        L8D. |   .6921992   .4182712     1.65   0.137    -.2723358    1.656734
        L9D. |   .7497593    .384529     1.95   0.087    -.1369663    1.636485
       L10D. |   .6461865     .30956     2.09   0.070    -.0676602    1.360033
       L11D. |   .4297557    .194595     2.21   0.058    -.0189811    .8784925
      _trend |   .1762213   .0418906     4.21   0.003     .0796214    .2728213
       _cons |  -2.777166   .7771166    -3.57   0.007      -4.5692   -.9851322
------------------------------------------------------------------------------
```

In Table 2, by using 11 lag as in the ADF test for economic growth, we found out that p-value is 0.0070 that is lower than 0.05. Hence, we reject the null hypothesis that FDI follows a unit root and confirm that over FDI series is stationary.

However, to remedy of the presence of unit root in GDP rate, we test for cointegration. For our cointegration test, we used three lags (Table 3) for this model as the Akaike information criterion (AIC)[1], the Final Prediction Error (FPE) and sequent likelihood-ratio (LR) test have all taken three lags, as mentioned by the * in table 3.

[1]An index used in a number of areas as an aid to choosing between competing models. Developed by Professor Hirotugu Akaike in 1971 and proposed in 1974.

5.1.2 Testing for cointegration

The cointegration test is based on the method of Johansen (1977-2010) and stipulates that the null hypothesis of no cointegration will be rejected if the likelihood of freely model that contains equations of cointegration experiences many difference in comparison to the constrained model. In Table 4, the eigenvalue computes trace statistic in the line overhead. Johansen's testing procedure commences with the test for zero cointegrating equations, accepts the prime null hypothesis that is not rejected. According to table 4, the log likelihood -44.9, -42.12 and -41.78 are not so different. So, the null hypothesis of no cointegration between economic growth and FDI cannot be rejected.

Table 3: number of lags for cointegration

```
. varsoc  logGrowth logFORDI

   Selection-order criteria
   Sample:  1981 - 2010                          Number of obs      =        30
```

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-57.0233				.175376	3.93488	3.96477	4.0283
1	-48.6436	16.759	4	0.002	.131138	3.64291	3.73256*	3.92314*
2	-46.2032	4.8808	4	0.300	.146227	3.74688	3.8963	4.21394
3	-40.1268	12.153*	4	0.016	.128763*	3.60846*	3.81764	4.26235
4	-37.9555	4.3427	4	0.362	.148479	3.73037	3.99932	4.57108

```
   Endogenous:  logGrowth logFORDI
    Exogenous:  _cons
```

Table 4: Cointegration economic growth and Foreign Direct Investment

```
. vecrank  logGrowth logFORDI, lag(3)

                       Johansen tests for cointegration
Trend: constant                                         Number of obs =      31
Sample:  1980 - 2010                                             Lags =       3
```

maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	10	-44.981826	.	6.3894*	15.41
1	13	-42.126923	0.16822	0.6796	3.76
2	14	-41.787107	0.02169		

5.2 Empirical results

*Ln*growth = 1.2697 + 0.35611 *ln*FDI + 0.31782 *ln*INFL - 0.1206 *ln*GOV

t = (0.49) (2.14) (2.87) (-0.11)

According to the equation above as expected FDI has a positive and statistically significant effect on the economic growth of Cameroon over the period 1977-2010. Also, inflation has a positive effect in the growth of economy but less than FDI while government spending has a negative impact on the growth of the economy.

Table 5: Regression of Economy Growth by explanatory variables

```
. reg loggrowth logfdi loginfla loggov
```

Source	SS	df	MS	Number of obs =	34
Model	12.8671244	3	4.28904148	F(3, 30) =	8.66
Residual	14.8595651	30	.495318836	Prob > F =	0.0003
				R-squared =	0.4641
				Adj R-squared =	0.4105
Total	27.7266895	33	.840202713	Root MSE =	.70379

loggrowth	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
logfdi	.35611	.1666708	2.14	0.041	.0157229	.6964971
loginfla	.3178209	.1106102	2.87	0.007	.0919247	.543717
loggov	-.1206491	1.067332	-0.11	0.911	-2.300432	2.059134
_cons	1.269742	2.586884	0.49	0.627	-4.01338	6.552864

According to the Table 5, only FDI has a predicted sign. This result goes in the same way as precedent research conducted by Adewumi (2006). More FDI increases more economic growth. The level of t-statistics in FDI (2.14) shows the significant impact of foreign direct investment in the growth of Cameroon. The new code of investment in 1990 allowed foreign companies to transfer all of their profits outside of the country and the right to tax allowances in many some sector of activity such as agriculture. The importance of FDI in Cameroon is certainly due to the weakness of domestic investment because of the low extension of banking facilities to sustain domestic firms. So, foreign investment tends to play a major role in the economy that

eases the establishment of foreign companies and contribute on the overall growth of the economy. The total expenditure of the government is negative and insignificant at 5% level of significance (t-statistic is -0.11). Main obstacles to this insufficiency are mismanagement, impunity, bribery and the high level of corruption in the public service. In fact, since the devaluation of the ''Franc des communautés financières d'Afrique''(FCFA) who is the Cameroon's currency in January 1994 and the establishing of Structural Adjustment Programs (SAPs) in 1990s by International Monetary Fund (IMF) and World Bank, government of Cameroon decreased salaries of civil servants by third. Thus, this led government spending to be embezzled to private accounts causing many public companies and social insurance to collapse. Also, this mismanagement caused Cameroon to be ranked among the most corrupted countries in the world since 1998 (Transparency International). The mismanagement of public funds and international aid received by Cameroon led to the deterioration of road network, shortage of electrical energy and insufficiency of hospitals and public schools.

Concerning the inflation, it is statistically significant (2.87) due to strong economic growth after the structural adjustment program piloted by World Bank. In fact, the rate of inflation usually follows a negative progression but if an aggregate demand in an economy expanded faster than aggregate supply, and demand is raising faster than supply this suggests that economic growth is higher than the long run sustainable rate of growth and we would expect to see a reverse in economy that could lead to a positive and higher inflation rate. Also, the rise of a new middle-class in the 2000s and a pegged exchange rate between Cameroon's currency and Euro contributed to make the inflation rate stronger. More information is given in table 6.

Table 6: Growth and Foreign Direct Investment
Explained Variable: Per Capita Real GDP growth rate (1977

	(1)	(2)	(3)
Inflation	0.3221309 (3.15)		0. 3178209 (2.87)
Govt spending		1.177812 (-1.06)	-0.1206493 (-0.11)
FDI	0.3636645 (2.42)	0.4615194 (2.56)	0.35611 (2.14)
Observations	34	34	34
R^2	0.4638	0.3166	0.4641
Adjusted R^2	0.4235	0.4235	0.4235

Notes: The values in parenthesis inside the table represent t-statistics.

FDI have a significant and positive effect on the growth rate of the Cameroonian economy. Model shows an increase of influx of FDI by 1%, we would expect the GDP growth rate to increase by 0.33%. Also the R^2 indicates that 46% of the variation in growth of the economy can be explained by that in the FDI and inflation, what seems not consistent but high enough to positively influence the growth. Just as the first column, the second column shows that FDI (t-stat: 2.56) is still statistically significant after controlling for government but the impact on the economic growth is lesser (R^2: 0.3166). That situation is due as mentioned early to the weakness of public service and embezzlement. The last column represent the model equation of the impact of FDI in the global economy confirms the positive and significant effect of FDI (t-stat: 2.14), the positive effect of inflation and the negative impact of

government spending. Over the years 1977-2010, FDI had a positive and statistically significant impact on economic growth of Cameroon.

Chapter 6

IMPACT OF FDI IN SECTORS OF ECONOMY

6.1 Review

Since many decades, FDI became the largest single source of external finance for many developing countries. For the most part, discussions of causes and effects of FDI have mainly focused on manufacturing and services sectors. FDI in the primary sector has also soared. This chapter attempts to enlighten the impact of FDI in the three main sectors of the Cameroonian economy: primary sector, industrial sector and services sector. Just few empirical studies have focused on the welfare effects of FDI flows in the three sectors of economy. As noted earlier, the relationship between Trade and FDI seems to be the center of the analysis of welfare effects of FDI on rich countries, while the rates of growth of GDP, international trade and the level of returns to capital are key welfare issues for poor countries. However, a number of researchers working on FDI dealt with the effect of FDI on the host country economy, basically by discussing how it affects its growth. Khaliq and Noy (2007) found out that the impact of FDI in mining sector in Indonesia was negative while De mello Jr (1999) discover that the impact of FDI in China could have been more relevant if the investment was more significant in the primary sector. Therefore, FDI has been regarded in recent years as an essential path for the transfer technology and the boost of growth in developing countries. This view apparently differs with the thought in some political and academicals milieu in the 1960s, that FDI was not benefit for the economy of under-developed countries. In the beginning of 1980s

some researchers reached a new discussion that played a significant start in the development economics. That discussion clearly followed a new path in order to show a new theory of growth.

6.2 Evidence and equation of Model 2

Table 7 shows the results of estimation of FDI in the three sectors named previously. In this table, we can see that the impact of FDI taken as a whole is rather different to FDI taking separately

$$Ln\text{growth}_t = \beta_0 + \beta_1 ln\text{CONTROL}_t + \beta_2 ln\text{FDIPRIM}_t + \beta_3 ln\text{FDIMANUF}_t + \beta_4 \text{lnFDISERVt} + \varepsilon_t \quad (6.1)$$

CONTROL stands for Government spending, and inflation.

The empirical results we have obtained from the estimation of the model are as follow

Model 2: $Ln\text{growth} = 1.135 + 0.121\ lnInfl + 0.774\ lnGov + 2.307\ lnFDIPRIM - 0.572\ lnFDIMANUF - 1.679\ lnSERV$ (6.2)

According to model 2, only FDI inflows in the primary sector have a positive and statiscally significant impact on the economic growth of Cameroon during the period of study. This result is in line with the findings of Alvaro (2003) stipulating that in developing country, FDI in manufacturing sector and services sector continue to have negative impact due to the lack of firms and the weakness of financial system.

Table 7: Foreign Direct Investment and growth by Sector
Explained Variable: Per capita RGDP growth rate (1977-2010)

	(1)	(2)	(3)	(4)
Inflation	0.121055 (1.07)	0.138251 (1.13)	0.2590918 (1.96)	0.1924235 (1.64)
Government spending	0.774491 (0.56)	1.52255 (1.06)	-0.951731 (-0.59)	-0.435307 (-0.32)
FDIPRI	2.307413 (3.15)	2.5685 (3.30)		0.973128 (3.20)
FDIMANUF	-0.5726957 (-1.89)		-0.7534924 (-2.00)	-0.894263 (-3.20)
FDISERV	-1.679662 (-1.97)	-2.54453 (-3.27)	0.8053642 (1.97)	
Observations	34	34	34	34
R^2	0.7320	0.6640	0.5421	0.6578
Adjusted R^2	0.6363	0.5743	0.4388	0.5665

Notes: Regressions contain a constant term, are estimated by Ordinary Least Square; in parentheses we have the t-values. FDIPRI is logarithm (1+Average FDI in Primary Sector/GDP). FDIMANUF represents logarithm (1+Average FDI in Industrial Sector/GDP). FDISERV is logarithm (1+Average FDI in Services/GDP). The values in parenthesis inside the table represent t-statistics.

6.3 Findings of the impact of FDI in different sectors of the economy

Finally for robustness issue we have tested the interaction of foreign investment in different sector of economy (primary, industrial and services). We found out that the primary sector is the one that sustain most the economy growth in Cameroon. This result seems to be relevant given the fact that agriculture represents around 60% of the real GDP; the result shows a positive effect on the economic growth. Both industrial sector and services sector have a negative effect, on the economy of Cameroon but only the manufacturing sector has a negative impact when controlled with all other sectors and each of them separately. Table 7 sorts the findings for the regression, and displays that only the FDI primary has a positive impact on the growth of the Cameroonian's economy while the positive impact of services sector is ambiguous.

As we might expected, being positive, FDI in the primary sector is significant after controlling with other sectors. This result shows the nature of economy of Cameroon. Alvaro (2003) found out some similar result showing that developing countries are most likely to experience positive impact of FDI in the primary sector while in developed country the FDI will have a significant in the secondary sector. Also, findings in manufacturing sector display the poor level of industrial infrastructures in Cameroon (Appendix B). Concerning the services sector it increased over years and participated more and more in the growth of economy since 2000s (Appendix B).

Chapter 7

CONCLUSION AND RECOMMENDATION

7.1 Conclusion

On the global economy, the impact of FDI on the economic growth of Cameroon over the period 1977-2010 was positive. Nonetheless, FDI did not affect each sector of the economy in the same way. In fact, the impact of FDI in Cameroon is relevant and positive in the primary sector in spite of the economic crisis in 1986 and the fall of commodities prices. Also, given the weakness of the industrial sector of the economy, the effectiveness of FDI in the manufacturing sector was negative. The service sector though being the sector that is experiencing the increase in the amount of influx of FDI in Cameroon seems to not be high enough to start boosting the economy at a very significant level.

Results have several policy implications. First, it suggests that economic growth in Cameroon is not solely driven by some exogenous factors, and that small country can obtain FDI by improving their institutions and policy environment. Second, multilateral organizations such as the IMF and the World Bank can play an important role in facilitating FDI by promoting good institutions. Cameroon policies to attract FDI and its characteristics have changed over decades. Before the economic crisis in 1986, FDI experienced a good trend and appears to be concentrated in the field of natural and mineral resources. Economic crisis in 1986 and the fall of commodity prices caused a reduction in inflow of investments chiefly the foreign ones. The

recommendation of IMF to privatize many public companies in the beginning of 1990s marked the revival of its good years. Between the 1990 to 1998 percentage of FDI in the economic growth raised from -1.02% to 2.23% and in 2002, the growth significantly increased as government commenced to take more attention on the impact FDI in economy and multiply partnership with China. After the attainment of the Decision Point of the HIPC initiative in 2006, economic growth of Cameroon became more stable with an annual growth around 3% over year. Although this growth is less important than those in the previous decades (before the change in the head of state in 1982, the rate of change of real GDP were about 7.52%), we should take into consideration the evolution of population that rose at the same time from 8 million inhabitants in 1977 to around 20 million in 2010. In addition, since the beginning of privatizations and the elaboration of new code of investment in 1990 the industrial sector encountered a significant shift with many foreign firms investing in structural projects, these projects concerned the construction of dams, roads, infrastructure of telecommunication, new port and development of agricultural industry. Government began to facilitate the creation of enterprises and increase offer incentives to attract investment.

This thesis finds inflows of FDI in different sectors (primary, industry, and services) have different impacts on the growth of economy for the case of Cameroon. Unfortunately, although FDI did not help to alleviate poverty and reduce unemployment as expected, one can admit that agriculture has a potential spillover for Cameroon. Foreign direct investment in secondary sector may have positive impact on growth if the government of Cameroon augments the level of study and orientate many students to specialize in industrial area. In the tertiary sector, FDI has

an ambiguous effect due to the lack of financial support to SME's. This work analyzes that FDI is very important to sustain Cameroon's economy. In spite of the limitations of the data used concerning the level of corruption, the robustness is due to the impaction of several growths constituent, such as inflation to measure the level of CPI, and Government spending. However, because of weakness of government to protect employment, misuse of public money and the high level of corruption, FDI are still low in Cameroon compare to other countries having the same power of attraction. Countries should not measure the level of impact of FDI on the economy as a whole but rather at different sectors and fight to eradicate corruption and red tape to increase productivity and boost the economy.

7.2 Recommendation

The study showed that Foreign direct investment played a significant role on economic growth in Cameroon over 1977-2010. Thus, the growth of economy is also sensitive to government spending and inflation. Moreover, the study clarifies that primary sector is highly significant in Cameroon as in many developing countries. However, manufacturing sector is the weak link of the economy; while the services sector is taking important part over years. Hence, as suggestion, Cameroon should focus on the development of industry to transform in the country most the natural and agricultural resources. Also, government should eradicate or significantly decrease the level of corruption and embezzlement. As we have seen the influx of FDI is increasing over years, so with a good management of public resources combined to an increase in FDI and the soaring of a new class of consumer, Cameroon's economic growth could skyrocket and eventually would lead to the development and amelioration standard of living of population.

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APPENDICES

Appendix A: Tables of regression of economic growth and each sector

Table 8: Growth and FDI in Primary Sector

	(1)	(2)	(3)
Government spending		-2.602 (-3.46)	-1.715 (-2.03)
Inflation	0.329 (3.36)		0.207 (1.91)
FDI primary sector	**0.264** **(0.28)**	**-0.0023** **(-0.03)**	**0.322** **(0.37)**
Observations	34	34	34
R^2	0.3698	0.3825	0.4817

Dependent Variable: Per capita Real GDP growth rate (1977-2010)

Table 9: Growth and FDI in Industry Sector

	(1)	(2)	(3)
Government spending		-2.758 (-2.20)	-0.249 (-0.15)
Inflation	0.302 (3.22)		0.287 (2.01)
FDI Industry sector	**-0.321** **(-0.35)**	**-0.867** **(-0.87)**	**-0.332** **(-0.35)**
Observations	34	34	34
R^2	0.4232	0.2777	0.4239

Dependent Variable: Per capita Real GDP growth rate (1977-2010)

Table 10: Growth and FDI in services sector

	(1)	(2)	(3)
Government spending		-2.839 (-2.21)	-0.197 (-0.12)
Inflation	0.315 (3.34)		0.303 (2.14)
FDI Services sector	**0.0092** **(0.09)**	**-0.461** **(-0.41)**	**0.0089** **(0.09)**
Observations	34	34	34
R^2	0.4194	0.2533	0.4198

Dependent Variable: Per capita Real GDP growth rate (1977-2010)

Appendix B: Relation between economy growth and each sector

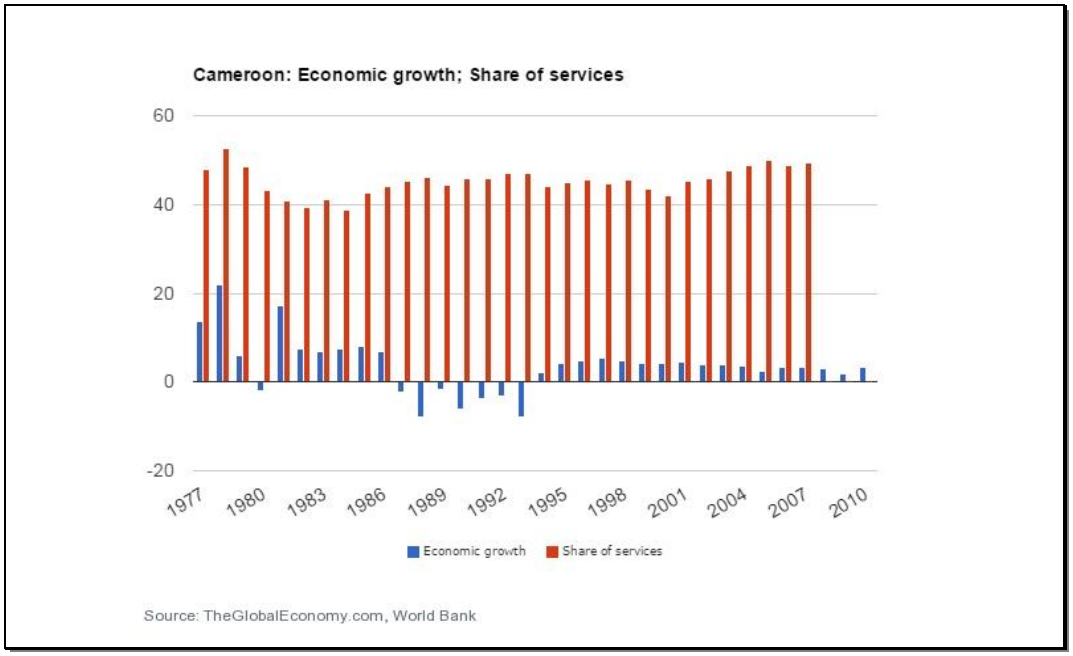

Figure 3: Economy growth and Services

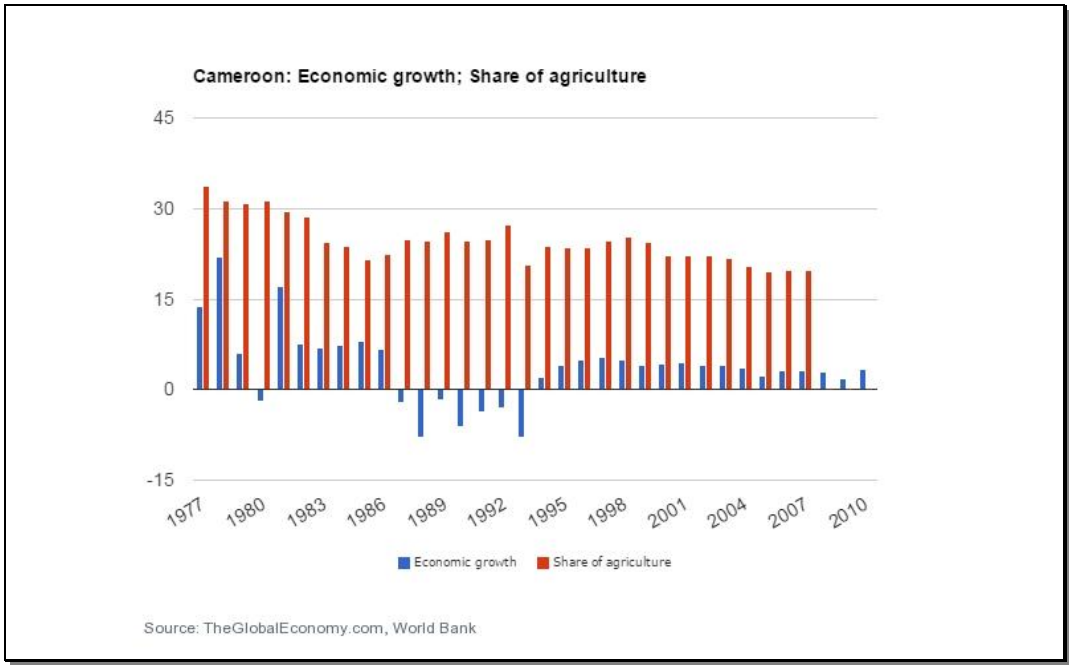

Figure 4: Economic growth and agriculture

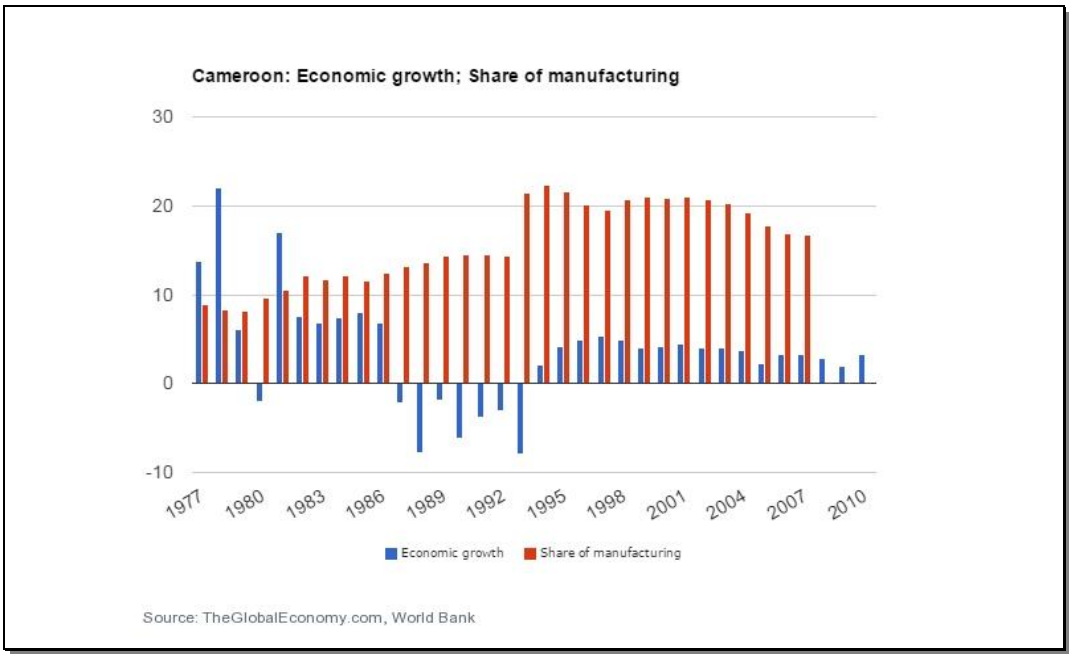

Figure 5: Economic growth and industry

APPENDIX C: Variables

Table 12: evolution of different variables over 1977-2010

Country	Code	year	Economic growth: the rate of change of real GDP	Inflation: % change in the Consumer Price Index	Government spending as % of GDP	Foreign Direct Investment % of GDP
Cameroon	CM	1977	13.74	14.7	9.82	0.26
Cameroon	CM	1978	22	12.5	9.77	0.92
Cameroon	CM	1979	6.04	6.6	9.24	1.07
Cameroon	CM	1980	-1.97	9.6	9.7	1.93
Cameroon	CM	1981	17.08	10.7	8.86	1.77
Cameroon	CM	1982	7.52	13.3	8.84	1.52
Cameroon	CM	1983	6.87	16.6	9.5	2.9
Cameroon	CM	1984	7.47	11.4	9.59	0.23
Cameroon	CM	1985	8.06	8.5	8.99	3.88
Cameroon	CM	1986	6.77	7.8	11.34	-0.8
Cameroon	CM	1987	-2.15	13.1	12.15	0.94
Cameroon	CM	1988	-7.82	1.7	10.73	0.74
Cameroon	CM	1989	-1.82	-1.7	10.77	-0.7
Cameroon	CM	1990	-6.11	1.1	12.75	-1.0
Cameroon	CM	1991	-3.81	0.1	13.27	-0.1
Cameroon	CM	1992	-3.1	-0	12.81	0.26

Cameroon	CM	1993	-7.93	-3.2	12.4	0.04
Cameroon	CM	1994	2.06	35.1	9.38	-0.1
Cameroon	CM	1995	4.13	9.1	8.68	0.08
Cameroon	CM	1996	4.91	3.9	9.17	1.04
Cameroon	CM	1997	5.31	4.8	9.1	0.8
Cameroon	CM	1998	4.9	3.2	9.09	2.23
Cameroon	CM	1999	4.06	1.9	9.46	-.15
Cameroon	CM	2000	4.17	1.2	10.11	1.71
Cameroon	CM	2001	4.51	4.4	10.95	0.76
Cameroon	CM	2002	4.01	2.8	10.93	5.53
Cameroon	CM	2003	4.03	0.6	10.97	2.47
Cameroon	CM	2004	3.7	0.2	12.06	0.55
Cameroon	CM	2005	2.3	2	10.58	1.47
Cameroon	CM	2006	3.22	5.1	10.76	0.33
Cameroon	CM	2007	3.26	0.9	11.24	0.93
Cameroon	CM	2008	2.88	5.3	12.78	0.09
Cameroon	CM	2009	1.93	3	13.93	3.18
Cameroon	CM	2010	3.27	1.3	14.16	2.27

Sources: World Bank Indicators