

**MASTER THESIS FOR THE MASTER OF PHILOSOPHY IN ENVIRONMENTAL
AND DEVELOPMENT ECONOMICS. DEGREE**

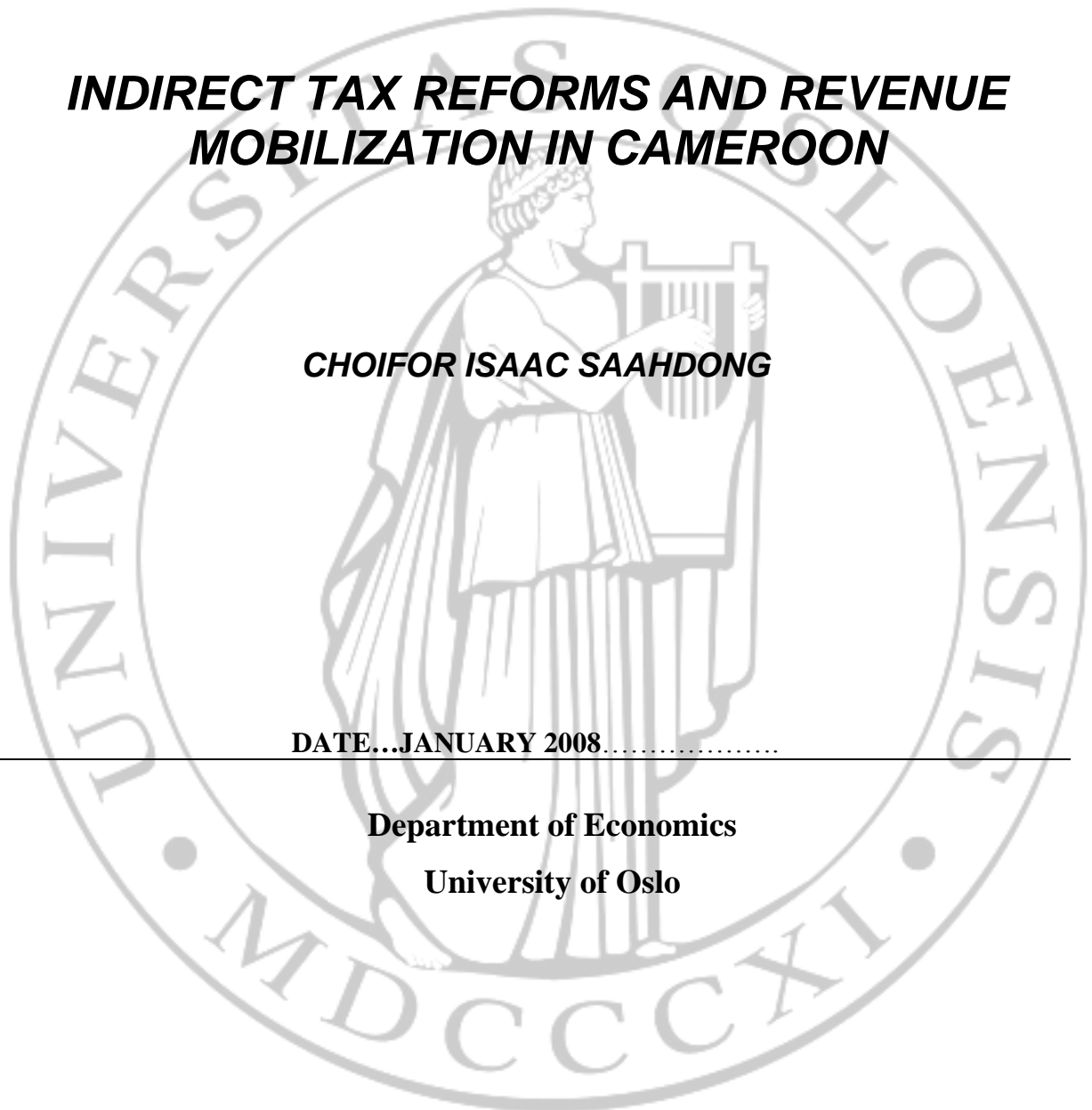
**INDIRECT TAX REFORMS AND REVENUE
MOBILIZATION IN CAMEROON**

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PREFACE

As a student in Economic Development, I have always been wondering why my country – Cameroon and other developing countries tend to depend on foreign aids to finance their growing expenditure rather than self mobilising revenue from their abundant resources for their development cost. This puzzle therefore motivated me to undertake this study of assessing the links between tax reform system and revenue mobilisation for Cameroon.

My first special thanks go to Jorgen Aanes of Central Bureau of Statistic Norway, who as my first supervisor to this work, shared in my opinion and encouraged me, but could not continue the supervision of the work because of his health.

My most special thanks and gratitude go to Vidar Christiansen and Biorn Erik who accepted to assist me complete the work and have honestly accorded me with the best of their efforts, suggestions as supervisors for my realisation of this work at the moment.

I equally appreciate the University of Oslo Economic Department staff and the administration for their support and for providing me with the academic resources and environment to learn. Especially, Kaya Sverre who in spite my difficulties as a self sponsored student, she never relented her support and encouragement for my success.

Special thanks again to Dr. Ojuku T. of the Yaounde University of Cameroon, who stood behind me with all force of encouragement to ensure that I completed this project regardless of the ups and downs I was confronted with, not leaving out his friend Gabriel N. who assisted me in the data collection especially in a very difficult terrain like Cameroon.

I used this opportunity to express my deepest gratitude to our brother Apabeloi Mbape who while in Oslo initiated the need for me to move over to Norway to further my studies, may God bless you for that wonderful initiative. To all my family, I congratulate them for their sacrifices over this long period, I remained thankful to you all.

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ABBREVIATIONS.

SSA= Sub Saharan Africa
SAP= Structural Adjustment Programs
PFCE= PRIVATE FINAL CONSUMPTION EXPENDITURE.
TMGS= TOTAL IMPORTS OF GOODS AND SERVICES
GDP= GROSS DOMESTIC PRODUCT

DEFINITIONS OF SOME CONCEPTS.

1) PROXY BASE OF A TAX: The term is use in this work to represent or approximate the specific selected imports on which the custom duty tax (CTM) and the domestic activities on which the sales/VAT (STV) are charged to, since is not easy to determine a legal base of tax and also because in Cameroon not all consumptions and productive activities faced these component of indirect taxes.

2) BUOYANCY AND ELASTICITY: Buoyancy measures the total response of tax revenue to changes in income incorporating the discretionary effects of a tax while elasticity the automatic or the built-in response of revenue to income changes excluding the discretionary tax impact.

NB: In literature instead of the term 'Buoyancy' some author prefer the term 'Elasticity' used with some suitable qualifying adjective (Mansfield 1972).

The only difference between tax to income elasticity and buoyancy is the discretionary changes.

In this work I use the two terms sometime to mean the same measures given the difficulties to get the discretionary tax changes for Cameroon.

NB: The author's casual use of the words **productivity** in this work is not in relation to production efficiency but imply the sensitivity or the responsiveness of the tax revenue changes.

SUMMARY

As most developing countries strive to achieve Economic growth and development, it has been quite a challenging issue to attain a balance in their fiscal policy management. Most of these countries have faced a prolonged (persistence) budgetary deficit caused by the increasing growth in their public expenditures more than in their incomes. The most important puzzling question has been why is there a slow revenue mobilization in developing countries? It was realized in the mid 1980s by the World Bank studies that this slow revenue growth has been due to their poor fiscal design policies. Hence according to the Ahwad and Stern (1991), SAP design for developing country's tax reforms was accorded a top priority. Meanwhile Sohota (1961) earlier pointed out the role of tax reforms as one of the important and a major ingredient to economic development of a nation.

Cameroon in Sub Saharan Africa faced this problem in mid of 1980s. The country was not only heated by a recession but faced a prolong budget deficit problem from 1986-1994. Since 1990 two major tax reforms were implemented in 1994 and 1999 to restructured the country's tax policies for revenue mobilization in order to overshadow the deficit scenario. It is rather unfortunate that since the reform package were implemented; there has been little or no work done so far to assess the success or influence of the reforms on indirect tax revenue raising capability. It is this challenge or knowledge gap that I was motivated to cover in this piece of work. Due to the large scope of taxation, this issue of tax revenue mobilization is restricted only to the indirect tax reform in Cameroon. The major pre-rogatives of this work involve;

- An exposition of the indirect tax structure of Cameroon and the trends of tax revenue growth.
- To investigate if the tax reforms did improve the initial tax revenue situation or rather helped to engineer the response of the tax system to changes in the tax bases for the purpose of raising sufficient revenue requirement for the economy.
- To identify which indirect tax hurdles become more responsive (flexible) or remain rigid after the tax reform, as well as which of the indirect taxes responded to revenue increases depend on discretionary power influence than by natural response (elasticity).
- Finally, what are the conceivable implications of the indirect tax outcomes to the tax policy makers of the country?

Methodology: I used the model of tax elasticity and buoyancy¹, estimated from a tax function, an approach used by similar works in other developing countries by Prest 1962; Sohota 1961; Lavin 1968; Mansfield 1972; Chellah 1971. The tax elasticity is the responsiveness of the tax revenue growth relative to the change in the tax bases excluding any external influence on the revenue growth such as the use of discretion, changes in tax rates and so on while Buoyancy is similar but involves measurement of total tax revenue that encompasses all other external influences. Within the indirect taxes, the sales/VAT taxes (STV) as the main consumption tax and Custom duty/imports (CTM) from international strand were utilized as samples for the analysis. The GDP used as the main tax base, with one proxy² base (actual base) for each tax sample. The total imports of goods and services (TMGS) as the proxy base for custom duty tax and private final consumption expenditure (PFCE) for the expenditure taxes. Time series data on tax revenue from 1980 -2003 were used basically due to difficulties of getting tax revenue data in an extended period for Cameroon. Data on sales/VAT taxes and custom duty tax were obtained from Cameroon tax department of the ministry of finance and Central Bureau of National statistics while that on GDP, PFCE and TMGS, were obtained from World Bank Development Indicator. The data on discretionary tax revenue were not available at all in Cameroon. Thus, I finally adopted the Dummy variable techniques used by Singer (1968) to capture the effect of tax reforms and in estimating the tax elasticity of the indirect taxes in Cameroon. Hence from a given tax function, a series of regressions were ran using the Eview and stata as the main statistical software package .

RESULT: The overall results of the tax reforms on revenue mobilisation in Cameroon showed a progressive trend. The impact of the 1994 and 1999 tax reforms in regards to revenue raising tended to vary depending on the specific tax and the respective tax basis. The empirical finding of the impact of the 1994 tax reforms on STV showed a decline in the intercepts of 22% and 24.5% for GDP and PFCE

¹ Buoyancy measures the total response of tax revenue to changes in income incorporating the discretionary effects of a tax while elasticity the automatic or the built-in response of revenue to income changes excluding the discretionary tax impact.

² Use to represent or approximate a specific selected base of given indirect tax. See page v for detail definition.

respectively. The long run effects of the elasticity response (slopes shifts) resulted to a positive increase in STV revenue of 0.039 and 0.311 from GDP and PFCE.

Similarly the CTM experienced a decline in the intercepts that resulted to a decrease in its tax revenue from the pre-reform level by 19% and 43% out of GDP and TMGS. The elasticity response shows an elastic increase in slope by 0.056, an indicated rise in CTM revenue by 5.6%. On the contrary, there was inelastic decline in slope of 0.54 for TMGS. This implies decrease in CTM revenue by 54%, which was only in the short run due to the reduction in tax rate intended to counter the effects of rising prices caused by devaluation of the country currency in 1994.

In respect to the 1999 tax reform impact, the VAT showed a positive shift in the intercept of 10.35% and 3.43% in respect to GDP and PFCE as tax bases, with an insensitive response of slope (elasticity) alteration.

The interpretation of the stated empirical findings of this work are that a decline in intercepts signifies an autonomous loss (leakage) of tax revenues. On the other hand elasticity response due to changes in slope in a positive direction indicates an increase in revenue due to increase tax rate by reform and an inelastic response of a decline in the slope indicates falling tax revenue due to a cut in tax rate. One very interesting realisation of this slope interpretation is the opposite effects on the tax base, where the underlined tax bases decline in the post 1994 tax reform except for TMGS due to a cut in CTM rate.

A comparative analysis of the stated result of the difference indirect tax hurdles showed that CTM became more responsive to revenue yield than STV in the post 1994 reform period. VAT remains rigid to revenue mobilisation after the 1999 tax reform.

Other findings of the research from the analysis of elasticity and buoyancy with regards to the third objective indicated that before tax reforms in Cameroon; both indirect tax samples had an inelastic response to changes in their bases, while the post reforms, result of the STV became more responsive (elastic) and the customs duty remained inelastic. Again there were indications of dominant use of discretion in mobilising revenue than through in-built response of the elasticity.

The final outcome of these results and its implications that warrant some policy intervention are the realised loss in revenue, inelastic response of the tax bases which threaten sustainability future tax revenue flow and the ultimate effects of

unpredictable use of discretion in the country tax system. Few recommendations have been suggested in the light of improving the situation.

CHAPTER 1

1.0: INTRODUCTION

The performance of the economies of most developing countries in the last few decades has been an issue of concern to the rest of the world. International monetary institutions responded to salvage the imbalances of most of these nations by designing the Structural Adjustment Programmes (SAP) which was henceforth expected to be adopted and implemented by these poor nations. SAP is a set of macro economic adjustment policies. In most of the Less Developing Countries (LDC) due to their increasing budgetary pressure as a result of the rapid increase in expenditures to provide the basic necessity for the poor, and the limited scope to raise extra revenue, tax reforms have been accorded a top priority (Ahwad and Stern, 1991).

Cameroon's economy had experienced a steady growth in economic performance since independence in 1960s. Economic Development and progress in Cameroon can be analyzed in three main phases (Johannes et al; 2006). The first phase marked from independence in 1960 to the mid 80s when economic recession (economic crises) set in. This phase was the period of an impressive and a remarkable progress in the economic performance. This came as a result of the spectacular yield in agricultural products, accompanied by a rise in their world market prices. Another contributing factor was the oil boom which came from the discovering and exploring of this natural resource and above all was the efficient management of the government in sustaining and consolidating the public fund through provision of the basic public good and services. Thus in 1984/85, Cameroon had one of the highest per capita income in the Sub Saharan African with a minimum average of FCFA 249,000 (302.279 dollar) according to Amin, (1996) as reviewed (Johannes et al., 2006). But suddenly the country was plunged into a severe economic recession in 1987/88 (Amin, 2002).

This second phase of the Economic Development which was a reverse of the trend, known as the crisis period was from 1986/87 to 1993/94. It was quite deteriorating as there was a decline in almost all major economic activities. The country's recorded negative investment rate of 8.6 percent (World Bank, 1992), fall in consumption, Government expenditure increasing against a decline in revenue, and above all deterioration in terms of trade. Such deterioration was attributed to the sudden fall in

the world's market prices of oil, in unison to our major export crops which constitutes the main base of the country's economy. The continuous down turn of the world's market prices worsened country's term of trade, as our expenditure on imports and their prices persistently remain stable or rather increase. Within the economy over this period, the government faced a deficit in the budget, marked by an exceedingly higher expenditure over its income. Transaction with the rest of the world indicated a deficit in the country Balance of Payments (BOP), in addition to was the overall decline in the country GDP as illustrated on figure: 1 below.

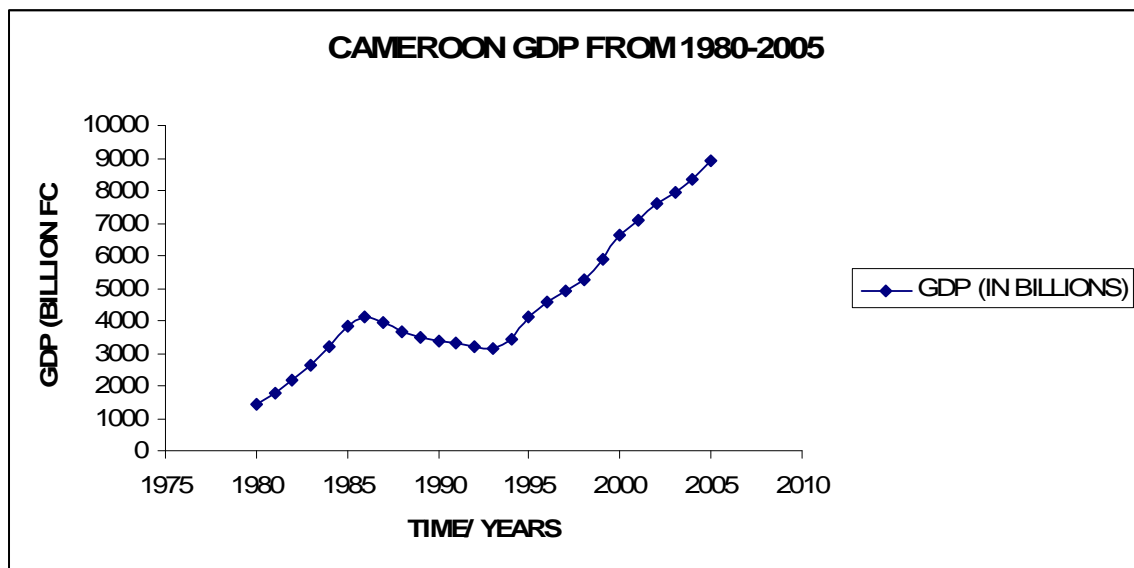


FIGURE 1: CAMEROON GDP FROM 1980 TO 2005.

SOURCE: BY THE AUTHOR

From the fig.1 is evidence that before 1986/87 the GDP of Cameroon was rising, and immediately took downward trends, which correspond to the recession period. During the recession period, debt burden of the country rises both external and internally. In the phase of population increase, the government attempt to meet up with the increase demand resulted to continuous increase in public expenditure. Consequently all foreign aid that came in could not salvage the situation of the crisis.

All culminated to economic hardship, which as a consequence ignited Cameroon to appeal to the International Monetary Fund (IMF) and the World Bank (IBRD) to assist in combating the crisis. Cameroon therefore had to join the lines of other developing nations, in implementing the band wagon of International Monetary Fund (IMF) and the World Bank SAP reforms. The SAP package consisted of macro economic reforms. Among some of its important policies were the trade and financial

liberalization, the reform of public sector, tax reforms on revenue raising and so on. In attempt to identify the sources of the downward trend of the Cameroon GDP, the poor respond of the tax revenue to the country GDP was an issue of concerned. A number of studies on taxation in developing countries, Cameroon in particular, indicate that Cameroon has witnessed a declining level of tax income. For instance, world bank (1994 tab A.2) indicates that, Cameroon tax revenue amounted to 12.3 percent of Gross Domestic Product (GDP) compared to a median of 18.5 percent of Sub Saharan Africa (SSA) countries. Most reports have pointed out that Cameroon's system for collecting and administering tax revenues were inefficient, ineffective and somehow inadequate. Thus in consultation with the international monetary institutions, Cameroon had implemented a series of revisions on its taxation policies since 1990.

This began with the restructuring of the tax administration where the weak, disorganised and corrupt tax administration was reformed through organisation of external and central services in the government. This was followed by the establishment of tax payer registration, and the improvement in tax payer education and information, and the development of data processing capabilities to facilitate tax management. Then come was the full implementation of tax reforms in 1994 and the adoption and full implementation of the value added tax (VAT) in 1999. This issue of restructuring of tax system in Cameroon through the tax reform implementation constitutes the focused of this research work.

1.2 STATEMENT OF THE PROBLEM

Since the implementation of the tax reforms in Cameroon, little or no efforts has been made to evaluate and assess the performance of the reforms in terms of revenue mobilisation capacity of the tax systems, coupled with the plausible consequences of the reforms on their respective tax sources. It is for these reasons that this thesis attempts to explore such knowledge gap in Cameroon's context.

1.3: OBJECTIVES OF THE STUDY

Generally, the objective of this is to examine the impact of the Cameroon's tax reform, in the case of its capacity in revenue raising. Specifically, the study analyses the trend and the response of each indirect tax category due to the indirect tax reforms

in relation to the changes in the overall income (GDP) and proxy base of each individual tax hurdles.

This study will thus attempt to address the following questions:

- -What have been the pre-reform tax system and the causes of the declined in the country tax revenues before the reforms?
- Did the reform improve the initial situation in Cameroon?
- -Have the tax reforms enhanced efficiency and flexibility of the indirect tax system? If so, which components of indirect tax system have been more responsive to changes in revenue?
- -What is the conceivable policy implication of the results

. The research will basically apply the model of elasticity and buoyancy as used by Mansfield (1972) and as also recently used by Muriithi and Moyi (2003), Chipeta (1998). Considering that mobilising or raising of domestic revenue from taxes come from both the direct and indirect tax sources, constitutes a very extensive area of covering. The scope of this work is therefore limited more on the indirect tax reform. The study focuses more on indirect tax policies in analysing the impact of tax reforms in revenue mobilisation in Cameroon. This is because changes in consumptions tax like sales tax/ Value Added Tax (VAT) affect a vast majority of the population than income tax. This in most cases is due to their large share contribution to revenue than the direct taxes. For instance according to Fambon (2006) between 1992/3-2000/1, the share of indirect tax on non oil tax revenue was 33% compared to 25% from direct sources on average. Also indirect taxes are easy source of revenue than income taxes. Generally most government in developing countries either for political goal or fear of impact of direct taxation on investment level tends to concentrate more on indirect sources of revenues than on the direct sources. Cameroon tax reform in particular,

indicates more frequent alteration of rates of indirect taxes than on the direct taxes especially income tax. The common kind of indirect taxes sample in Cameroon used in this study include; excise duties, imports (custom) duties and sales (Turn over Tax) replaced by VAT in 1999.

1.4: STUDY HYPOTHESES

The research objectives will be addressed by testing the following hypothesis.

- -tax reform did not change tax revenue trends in Cameroon after the implementation
- -the main indirect tax components have an inelastic response to changes in the GDP as well as to their tax bases.
- Tax revenue changes in Cameroon do not depend on discretionary changes.
- Indirect tax reforms in Cameroon did not cause any distortion on the economic activities of the country in general.

The remainder part of this work will be organised as follows:

Chapter 2 will cover the fiscal evolution, in Cameroon, structures; follow by identifying and justifying their trends as sources of revenue mobilisation before tax reform in the country. Chapter 3 will consist of a review of literatures on the role of tax reforms in raising country revenue and the experiences of the indirect tax reforms of other countries in the mobilisation of domestic revenue. Chapter 4 will examine the actual indirect tax reforms in the country. Chapter 5 will deal with the framework of measurement and estimation of different tax elasticity and buoyancy³. Chapter 6 is the methodology and presentation of regression result. The analysis and discussion of the result are in Chapter 7 while chapter 8 carry the conclusion and recommendations.

³ See page v for definition

CHAPTER 2

FISCAL EVOLUTION IN CAMEROON

It is an indisputable fact that the post independent tax system from the 60s was a continuation of an inherited colonial fiscal design. This was basically the direct and indirect tax system (Loeb, 1900). Over the years the system had undergone changes and modifications based on the existing economic circumstances. However, it will also be worth noting that the tax system operated by Cameroon from independence right up to the reform period was also being determined by the treaty of Brazzaville signed in 1964 under the canopy of UDEAC (Central Africa Economic and Custom Union) member countries currently know as CEMAC (Central Africa Economic and Monetary Community) which Cameroon is a staunch member. Existing literature points to the fact that since independence in 1960s Cameroon tax system relied heavily on selective tax and exemptions to promote the country's economic and industrial development (Fambon, 2006, and Gauthier et al.; 2000). This was accompanied with an investment code to attract foreign capital and to encourage import substitution industries. Cameroon like other member countries also instituted other special indirect taxes not covered by the treaty of Brazzaville tax harmonization agreement. A case in point is the domestic excise duties besides the oil taxes. The purpose was to raise more revenue and promote other economic activities through exemptions. Gauthier et al., (2000) however explains that the reason for this excise duty and other additional taxes was nothing more than promoting a complex and unfair tax and duties system in SSA.

The following section intends to review the different tax structure that existed before the reform and analyze the fiscal operation up to the reform period.

2.1: PRE-REFORM TAX STRUCTURE IN CAMEROON

Generally Cameroon tax policy operates concordantly with trade and commercial policy. The country's tax system is categorize into direct and indirect taxes

A) DIRECT TAXES

With respect to direct tax they were several existed numerous forms of direct taxes:

- 1) **Income tax**-was base on those with fixed income like salary earners. There was no particular modality specified on how this tax was to be collected especially

from employees with private contracts. However income taxes take a progressive system in proportion to the tax payer's income.

- 2) **Pool tax** of 3000FCFA per person which was imposed on self-employed citizens, It was not easy to identify those classified as self employed by the tax collectors and most cases they had to force people to pay the tax through road block. The situation was worst in the rural areas where most of supposed tax payers were. Some of eligible tax payer often spent weeks in the forest when the tax collector arrive their area of jurisdiction to claim this tax revenue for the state (Fjeldstad and ranker, 2003).
- 3) **Corporation tax**-were taxes on profit of firms and companies known as Impot sur le Benefites industriels et Commerciaux (**IBC**). It was quite a complicated tax that attracts the highest taxable amount depending on jurisdiction status and age of the business. In Cameroon businesses were expected to pay three category of this tax.

-Profit tax of 35% for incorporated business and 22% for unincorporated. Businesses also pay a 10% communal tax in addition.

-Minimum lump sum tax of 1% On turnover known as impot minimum de Perception (IMP) or Impot minimum forfaitaire (**IMF**) .This tax amount to 600,000FCFA, or approximately 1.1% of turn over.

Businesses in the first 2 Years of operation were exempted from such tax .While they paid half of the normal rate in the next proceeding 2years.

- There was also capital tax on firms ranging from 0.5-1.5% tax on dividends. Home citizen were charged 16.5% while non residents with mobile capital paid 25 % as tax.

- 4) **Patente**: Business entrepreneur paid an annual business tax' commonly known as patente, which was collected to support local government expenditure's criteria used to determine such license was based on the business output, equipments and on the number of employees.

5) Other direct taxes were paid on corporate charter, duties on properties leases. etc. Indirect taxes which contribute more than 50% of non oil revenue consist of the following components before the tax reform in the country: i) import duties 2) export duties, 3) sales taxes (consumption tax) on domestic goods and services, and 4) specific taxes based on consumption of oil product. Three of these taxes were in agreement of the common external tariff of UDEAC. The domestic turn over taxes were also binding to the agreement but only that Cameroon has the pre-rogative of

determining its rate which she used as a relief to certain enterprises. Prior to the tax reforms in Cameroon in 1994, those institutions that were not exempted to benefits from UDEAC and Cameroon's special program of the selective and exemptions tax design system were subjected to the following indirect taxes.

B): INDIRECT TAXES

As regard to indirect taxes which is the focused of this study include basically the domestic turn over tax (sales taxes) as the main consumption tax and the taxes on foreign trade. Based on the research works of Fambon (2006), Gauthier and Gersovitz (1993) and Gauthier et al;(2000), the common indirect taxes in Cameroon were as follow.

Impot sur le Chiffre d'Affaires Interieur (ICAI) known as **Domestic turn over tax** in English. This form of indirect tax system applied to trading firm existing in all UDEAC member countries. In Cameroon it is levied at 9 percent of sales value but reduce to 4.5 percent in certain cases and a special rate of 2.25% was applied to bakeries. This is explicitly, a form of consumption tax.

Producer engaged in foreign trade were subject to the different indirect **trade taxes** obligations with lot of diversified rate, ranging from 0-500% (World Bank, 1995) before the reform of the tax system in Cameroon Those producers who imported intermediate goods were charged with four different tariff (i) Custom duties rate from 5-50 % irrespective of the source. (ii) Import duties at the rate between 5-90 % regardless of the source, though some goods were exempted. (iii) Import turn-over tax at 10% on the value of both custom duties and import duties. Note also that foreign trade on consumption goods pay a tariff of 50%, raw material was 15% and primary goods was tax at 5%.

There was also **import surcharge** levied at ad-valorem rate of 0 – 100 %. Import were also charge with taxes including communal tax, national council tax of carriers, veterinary tax, special fuel tax etc.

The above taxes are today categorized under the following main indirect taxes in Cameroon.

2.3: MAIN COMPONENTS OF INDIRECT TAXES IN CAMEROON

1) VALUE ADDED TAX (VAT):

This form of indirect tax imposed on value added at each stage of production process was instituted in Cameroon as a quasi⁴ value added tax in combination with the Turn-Over-Tax (TOT), to replaced the sales tax during the 1994 tax reform. The full implementation of the VAT to replace the TOT in January 1999 was one of the most important tax reforms in the country. VAT is an indirect tax which rules has been accepted and reinforced since 1980 at international level with SAP and trade liberalisation. This is because from theoretical perspective is most likely, to minimize excess tax burdens. Given that the input VAT is reclaim, indicating a non taxation of intermediate goods and non differentiation of inputs taxes, an ideas initially propagated by Diamond Mirrlees Hindriks and Myles,(2005). Added to VAT is most prefer due to it allocative efficiency and higher yield prospects than other indirect taxes.

VAT will be commonly applied to the following activities in Cameroon: production, services, distribution, construction works and real estate agencies. The VAT applied in Cameroon is at a uniform rate of 18.7% which include communal surtaxes and a zero rate. The adoption of a single rate of VAT has been justified in technical term as a necessary way of overcoming the administrative difficulties in countries with weak tax administration. This is not only going to help in facilitating the administrative management but will also help to reduce tax evasion. Generally an application of VAT as a single rate from theoretical view is an optimum solution in term of pareto efficiency when base on certain assumptions. It may also be to ease the organisation and collection of the taxes from the administrative point of view, curtailing evasion as well as avoiding discrimination against people preferences (Ahmad and Stern, 1991; Tanzi and Zee, 2000). Applying VAT at multiple rates may increase costs of administration and supervision.

In Cameroon, most inputs in agricultural are exempted from VAT, as well as certain sensitive products in area of health, such as single used syringes and packaging of medications and some basic necessities, medical drugs and health are all exempted from VAT

⁴ Quasi means firms pay taxes on their purchases and later request tax return from the government.

2) EXCISE DUTIES.

This is form of indirect tax is applied in Cameroon in combination with VAT at the fixed rate of 25%. The intent of such tax is for revenue raising, but more in a discriminatory fashion or rather to correct the distortion created by the other tax system. They are basically subjected to products categories like tobacco, alcoholic beverages, perfumes and colognes, cosmetic and made-up products, hair lotions, precious stone and metal and jewellery.

3) CUSTOM DUTIES OR IMPORTS TAXES

This is one of the important strand of external taxes used today more for revenue raising than for protectionism in most developing countries. With respect to Cameroon, where the government used to relied on a wide range of selective and exemptions schemes to encourage the country industrial development. The country overall tariff structure was highly diversified, with rates ranging from 0-500% (World Bank, 1995). However Cameroon customs taxes went through significant changes during the reform periods which were geared to the restrictions of exemption schemes, encouraging exports, reforming the tariff structure and in strengthening the administration of the customs duties. The UDEAC tax and customs reforms implemented in Cameroon from January 1994 started with the dismantling of the existing system through the enhancement of the important domestic taxes while reducing tariff on external trade, the reforms includes:

- The replacement of the former four applicable tariff type by a simple unified system known as the Common External Tariff (CET) applied to countries outside the CEMAC region.

- The previous diversified imports duties system with rates ranging from 0 to 500% were reduced to 5%– 30% , with imports classified into four categories as follow: 30% for consumption goods, 20% intermediates goods, 10% machinery / raw material and 5% for primary goods.

- A Generalised preferential tariff was introduced on trade between UDEAC with an initial rates fixed at 20% of the CET.

- Due to the fragile nature of the industrial environment in the CEMAC region each state has the right to place an extra temporary protection surcharge of the more than 30% with excise goods and on some luxury imported goods.

As remarked customs reforms in Cameroon were not only to fulfil the SAP of IMF and regional integration formalities but intended to increase revenue to finance budget

deficit. The country revenue had been declining due to the numerous exemptions scheme, evasion and a fall in oil exports. Based on the customs reforms firm that enjoyed special programs face a rate increase of 15.8% to 19.8% from 1992/3 to 1994/5 with the privileges eliminated. The rate increased from 18.5% to an average of 30% for firm under the free trade zone and with an ad-hoc arrangement. For those under the normal regimes had their custom rates falling from 66.6% in 1992/93 to an average of 20.3% in 1994/5. This was somehow an indication that the tariffs reforms tended to level the playing field (Gauthier et al, 2000)

Customs reform in Cameroon was also intended to encourage exports capacity of the country. This was done by placing export duty /VAT free on direct and indirect imports of raw material used in production of export goods. Other exports support programme like the free trade zone created to encourage firms or business establishment producing goods mainly for export.

2.4: THE EVOLUTION OF INDIRECT TAX REVENUE IN CAMEROON BEFORE TAX REFORMS

Before proceeding to review the trends of tax revenues collection (indirect tax revenues) in Cameroon, is better to have a look of the pattern of flow of some of the major economic indicators of the country before the tax reforms. Table: 1 below through some highlights on some of the major economics indicators from 1985-1992.

Table.1

SOME OF THE MAIN ECONOMIC INDICTORS IN (%) AND AS SHARES OF GDP-CAMEROON FROM 1985- 92.

key indicators.	Prelim. Projections							
	1985	1986	1987	1988	1989	1990	1991	1992
<u>GROWTH RATES</u>								
GDP	7.6	8.0	-6.5	-7.7	-3.3	-2.4	-1.0	1.7
GDP/capita	4.3	4.6	-0.9	-10.6	-6.4	-5.6	-3.9	-1.4
Private consumpt/capita	6.2	5.5	5.2	-2.5	-22.7	-5.3	-2.7	-1.3
Exports GNFS Vol	11.4	-25.6	-33.6	-9.0	15.0	5.1	1.5	-0.4
Imports GNFS Vol.	18.3	6.2	-13.4	-16.2	-10.5	4.5	-2.5	-3.1
<u>BUDGET SHARES TO GDP</u>								
Government Rev/GDP	20.9	21.5	18.1	16.0	16.0	13.7	16.7	17.8
GOV.Expenditure/GDP	22.5	22.0	31.0	22.0	20.0	21	21	21
Budget deficit (-) or surplus (+)	-1.5	-1.2	-12.8	-0.1	-4.0	-7.0	-4.6	-2.9
<u>BOP SHARES TO GDP</u>								
Exports/GDP	34.3	23.6	16.8	16.5	19.7	21.2	36.1	34.1
Imports/GDP	23.3	22.9	21.2	19.2	17.8	19.1	22.0	22.2
Current Account/GDP	-4.0	-5.6	-9.8	-7.2	18.3	-2.5	-2.7	-4.9
Real Effect EXCH. RATE (1980=100)								
Terms of trade (1980=100)								

SOURCE: World Bank, (1992) Regional Corporation for Adjustment, (UDEAC) report.

The first part of the table show the growth rates of the GDP, GDP/capita, private consumptions which growth rates tremendously fall to negative value after 1987, The private consumption per capita drop from 5.2% in 1987 to -22.7 in 1989,-5.3 in 1990 and to -1.3 % in 1992. The drop in 1989 of 22.7 is very high; this was certainly due the political tension in the country, with operation ghost town that affected consumption to such an extent. Similarly, the GDP per capita which initially increases from 4.3% to 4.6% between 1985 and 1986, start experiencing a negative rates of growth after 1987 to -1.4% in 1992. This perhaps may be due to the rapid increase of

the country population, and the rising prices on the basic goods and services at during this period. This is a palpable indication of the magnitude of the recession experience by the country over this period. The fluctuation in the growth rate of the GDP per capita and that of private consumption will have certainly lower the general consumption of goods and services. This will equally have effect on the tax revenues worth collecting. In respect to the budget ,government revenues as a percentage of GDP decline from 1985 to 1990,from 20.9% to 13.7%.this was probably due to poor performance of the general economic activities which affected the tax revenue yield severely, couple with a lot of embezzlement of public fund, existence of numerous exemption schemes for potential tax payer. Evasion by citizen to comply with their tax obligation can not also be excluded from the cause. While the continuous increase in demand of services from the growing population and the government desire to avert the economic from the crisis culminated to the increasing government expenditure, the overall consequent is the deficit on the budget as indicated on the table 1 above. The next table, table 2 below shows the country total revenue and expenditures in billion of FCFA from 1982-1996.

TABLE 2: REVENUES, EXPENDITURE AND DEFICIT IN CAMEROON:1982-1996

YEARS	REVENUES IN BILLION FCFA	EXPENDITURES IN BILLION FCFA	SURPLUS IN BILLION FCFA
1980			
1981			
1982	413831.6	412429.9	1401.7
1983	497927	494231	3696
1984	650438.5	648944.6	1493.9
1985	753696.2	751015.6	2674.6
1986	873910.1	876590.8	-26086.5
1987	833583.7	858598.3	-25014.5
1988	593469.8	630336.9	-36867.2
1989	545446.9	551433.7	-5986.7
1990	465612.5	488820.8	-23208.3
1991	480852.8	501244.9	-20392.2
1992	562926.5	571864.1	-8938.6
1993	471380	487052	-15671
1994	408674	451283	-42609
1995	536537	526614	9922
1996	693111	638424	54687

SOURCE: DEPARTMENT OF BUDGET OF THE NATIONAL ASSEMBLES. YAOUNDÉ. COMPILED BY THE AUTHOR.

Table: 2. shows that, since 1986 Cameroon total expenditure exceeded the income. This resulted to a budget deficit, which persisted up to 1994. After 1994 when there were tax reforms specifically on indirect taxes the country deficit tends to a surplus which was ascribed by the present regimes as the years of hope (Johannes et al 2006). Though the deficit faced by the country occurred during a period of economic recession. Though many factors were responsible to the underscore economics situation, the low and negative income from taxation was the main cause of the budget deficit (Amin 2002). Tax revenue is a major source of income in the country. The decline in tax income in Cameroon during the economic crisis period that resulted to budget deficit as review on the table above constitutes a major challenge to the nation. Why was tax revenue declining in Cameroon? Did the tax reforms put in place in 1994 and 1999 help to salvage the country from this initial situation? This study attempts to investigate this problem by assessing the productivity of the country tax system, limiting the scope of the analysis to indirect taxes in particular.

2.5) TREND OF INDIRECT TAX REVENUES IN CAMEROON BEFORE REFORM

Generally, a close examination of tax revenues collection in Cameroon specifically indirect taxes review a very interesting trend, which seem to follow the overall trends of the country's economic performance. Below are graphs which illustrate the pattern of the revenues collections from some of the major indirect tax components in the country

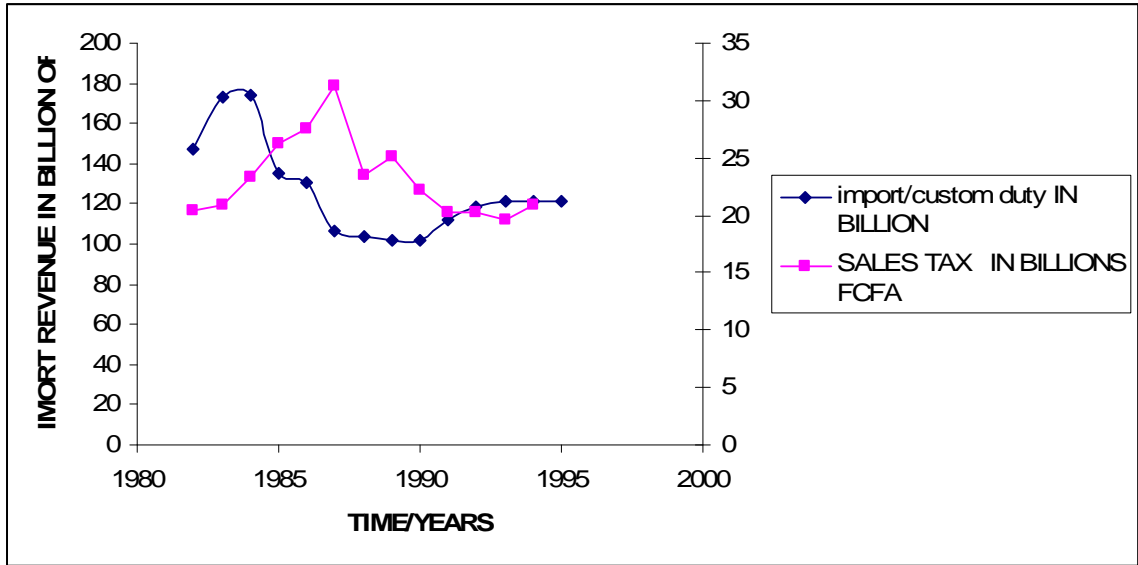


FIGURE: 2: IMPORTS AND SALES TAX REVENUES FROM 1982-1995

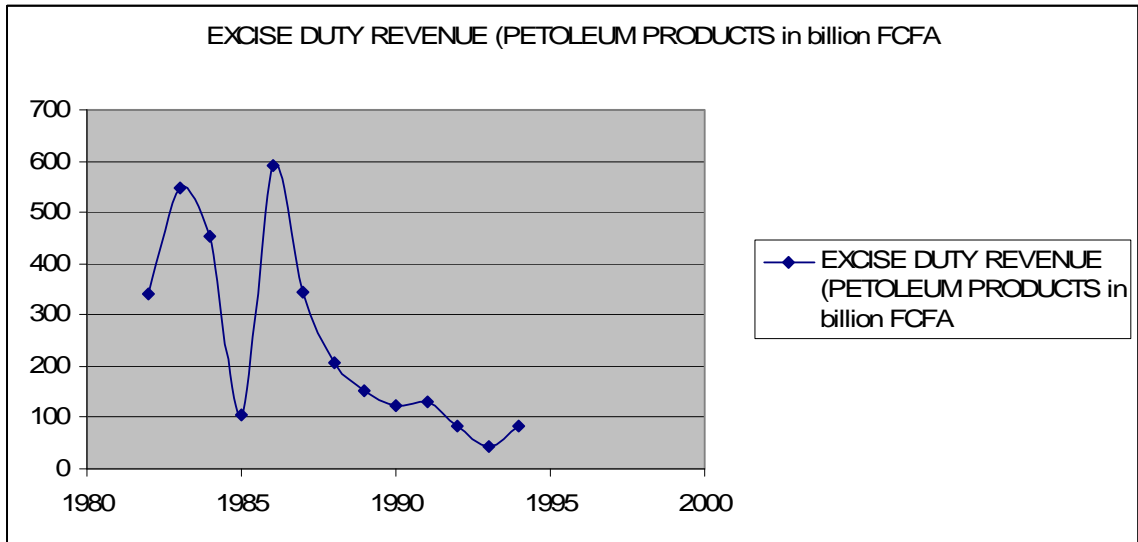


FIGURE 3: REVENUE FROM EXCISE DUTIES FROM 1982-1995.

The graphs above show the changes on revenue mobilization of the major indirect tax components which include custom or import duties tax revenues (CTM) and the sales tax revenue from 1982-1994 shown on figures 2 and the Excise duties revenue (EXD) on figure 3. It is evidence from the graph that revenue from the mentioned indirect tax sources fluctuates regularly during the pre-reforms period. What then constitutes some of the major weaknesses responsible for the observe fluctuation on the country's tax revenue mobilization?

2.6: REASONS FOR DECLINE OF TAX REVENUE IN CAMEROON PRIOR TO TAX REFORMS.

Cameroon like many other developing countries tax revenue mobilization tends to be procyclical (Talvi and Vegh, 2005). That is increasing during expansion and contracting in recession. What then are some of the prominent loopholes that characterized the down trends of Cameroon tax system prior to the institution of tax reforms in the country in 1994 and in 1999?

1) **TAX EXEMPTION:** The existence of numerous tax exemption schemes in Cameroon has been one of the major justifications of the decline in the country's tax revenue before the implementation of its tax reform in 1994. For instance the World Bank (1992), remark on the widespread use of exemptions in developing countries indicated that it has eroded their tax bases more than the negative real GDP growth rates and lower commodity prices more than expected. An average of about 71 percent was wholly /partly exempted in UDEAC (currently CEMAC) member countries. In Cameroon, between 1987/88 to 1990/91, over 62% of the country imports were exempted from import duties (World Bank, 1992). Some of the common exemption tax schemes that give special treatment from the tax authorities to producer, which resulted to greater loss of tax revenue in Cameroon include:

a) **Tax Unique (TU).** Initially put in place to encourage industrialization and trade between UDEAC countries (Gauthier et al., 2000). Firms with TU status had a number of advantages in that you have preferential access to all other UDEAC member countries. They were equally exempted from paying the domestic turn over tax (ICAI). TU rate may vary and are negotiable depending upon the country to which producer products' were to be exported. To obtain a TU status, firms had to apply to the management committee of the UDEAC secretariat.

b) **Tax Interieure a` la Production (TIP).** It was a special regime that provides sales tax and tariff advantages in contrast to TU, but grant no preferential access to UDEAC markets. The benefits and rates were negotiated with the Cameroon ministry of finance rather than with UDEAC.

c) **INVESTMENT CODE (IC):** Major tax exemptions and reduction are found in the IC. The IC has 5 schemes which benefit those firms that are capable of fulfilling the IC formalities. The said schemes include: The basic regime, small and medium size enterprises, the strategic enterprise regime, the re-investment regime and the free trade regime. IC regime benefit were not negotiable, however TU/TIP and IC regime are

mutually inclusive, allowing a possibility of benefiting from both scheme simultaneously.

c) **FREE TRADE ZONE (FTZ)**: Were inscribed in the 1990 IC, but covered by different law and administered by a separate organization. Firms in the FTZ benefits from full exemptions from international and indirect taxes but pay a very negligible fraction of their profit as tax. To enter the FTZ the firm total export must constitutes at least 80% and its activities has to be eligible to the basic IC.

d) **CONVENTION SPECIALE (CS)**: Firms without any special schemes suitable to their own specific needs negotiate directly with the ministry of finance for a special agreement. The only short coming of this scheme is that no guide lines existed for benefit and exemptions under such schemes. Hence firm in theory and in practice obtained full exemption from all tax obligations including the patente, for its life time operation. This unusual tax schemes was generally reserved for public or very large enterprises.

Exemption was further extended to include domestic indirect tax, which tax bases fall within the investment code. To encourage home industries importer of raw material and capital inputs had up to 40% tax exemptions. Hence tax bases were widely limited, where the few tax payers had to shoulder all burden of subsequent tax increase to reduce the country budget deficit. This resulted to extensive tax fraud and evasion as the burden become heavy on the few taxable bases.

However, it should be noted that mere existence of exemptions schemes may not necessary lead to a decline in tax revenue of a country unless is prolong and sustainable. As remarked by the World Bank (1992), except those like the TU which entry was granted by defunct UDEAC secretariat? Most home officials and organization in charge of selecting goods or activities that benefit from the exemptions schemes were corrupt, thereby permitting a wider number of in-eligible activities into the schemes which cause a big drop in the country tax revenue.

2): **TAX FRAUD AND EVASION:**

The exactitude of evasion is not easy to be determined, but the trend was on a rise in most CEMAC member countries. In Cameroon over two years 1986/87-1988)/90 the countries domestic sales tax fell by 65 percent due to de-fiscalisation (World Bank, 1992). However, in Cameroon according to Gauthier and Gervovitz (1993), those businesses that neither pay a group of taxes nor report an exemption are evaders. Their survey result of 197 businesses indicated that 96 were tax evader of all the three

businesses used in their definition. They notice that patente was the least evaded with only 14 cases, 68 evaded the business taxes while 82 evaded the sales taxes, but acknowledge that the actual amount of evasion was likely higher than their suggested calculation.

Tax evasion or tax fraud takes many diverse forms which can not all be exhaustively analyzed noted (Allingham and Sandmo, 1972). In most developing nations and Cameroon in particularly with high record of corruption, tax fraud and evasion was conspicuously high. Generally this may take the form of understating sales, as in the case of sales or the turnover tax, avoiding registering purchase of goods with tax, omission of self produce or deliveries from taxation, illegal importation of goods, and above all bribes offer to the tax official, which goes to accelerate the fraud and evasion of tax payment. The decline of tax revenue in Cameroon can not only be attributed to exploration of the different fraudulent mechanism but entirely on the weaknesses of the tax administration and the existing of the large informal sectors.

3) TAX ADMINISTRATION: Since the mid 80s it has been a recognized fact that improvement in tax administration is a necessary ingredient for a success of tax reforms (World Bank, 1991). This normally results to improve efficiency in the process of which taxes are assess, process and collected. The inefficient poor organized tax administration is certainly one of the major causes of the decline in the country tax revenues in mid 80s and early 1990s. The Cameroon tax administration has been under the function of two departments of the ministry of finance:

i) The tax department responsible for all domestic taxes. The duties of the tax department include tax assessment, collection, enforcement, drafting of tax laws and research. It has 12 provincial bureaus and 110 tax offices across the country and all function within the frame work of the general tax code (Cameroon tax code 1994). Generally tax revenue collection has been poor under the tax department because they had no tax payer identification number, poor auditing system, improper harmonization of penalties, dates for filling returns and paying, no center for guidance and assistance to the potential tax payer.

ii) The customs department: was responsible for all international trade taxes commonly known as Cameroon custom and governed by custom law. The custom offices are located at major ports, airports, railway station and at international borders. The main office for the custom department is in Douala, where the main port of the

country that serves three other African countries (Chad, Equatorial Guinea and Central African Republic) is located. The inefficiency of this department made clearance and export procedure very complicated, there was absent of proper monitoring of trade transit between Cameroon and neighboring countries.

Thus Cameroon has since independence maintain these form of tax administration, despite other countries renovation through adoption and implementation of autonomous tax authority in managing their tax affair till 1994 when some adjustment were effected on this domain of tax administration. The weak tax administration in the country has constitutes one of the major cause for the declining revenue in the territory.

4) EXISTENCE OF A LARGE INFORMAL SECTOR:

The informal sector has been on a rapid growth in many developing countries. Schneider (2002) estimated it to cover about 41% of GDP in developing countries. Keen (2007) coined it as a set of businesses and individuals that are less than full tax compliant. In Cameroon the informal sector constitutes a huge part of the economy and has been expanding due to the tax system as well as other administrative complications. The existence of a large part of the country's economy out of the tax system do not only result to distortion on resource allocation but more on the lost of revenue. Cameroon tax revenue has been on a decline as a result of the dominance growth of the informal sector. The revenue decline is likely going to accelerate under the VAT system which is more a formal sector tax as analyzed by Keen (2007) paper on VAT attack. However Keen further recommended the VAT as an appropriate tax system that can capture the activities of the informal sector, given that those in the informal sector buy inputs from the formal sector, but cannot receive input VAT claims. The end result of this study may be able to tell the extent to which VAT had been able to overcome this drawback of the informal sector in respect to revenue mobilization.

CHAPTER 3

REVIEW OF LITERATURE

3.1: REVENUE MOBILIZATION:

One of the most prominent objectives of almost all government is to achieve a satisfactory level of growth. Growth and expansion of economic activities do not go without increase in expenditure by both the private and public sector. This will be more glaringly observed in developing countries. Wherein there is a great need of such revenue to cater for their growing population needs, need of more capital to increase investment, expand their general industrial sectors, improve general infrastructures on health and on Education. This concept of revenue mobilization in its simple understanding means the raising of revenue at both the micro and macro level to foster growth and development. In short the tendency for a nation to raise revenue to meet up with its increasing public expenditure.

. However, this may have a different connotation when used in reference to tax reforms. In most developing countries when used in connection to tax reforms, it implies the ways of making tax policies (system) more responsive to changes in national income (or proxy bases), in order to generate more revenue to mitigate the perpetual fiscal imbalances within an economy (Muriithi, 2003 and Chipeta, 1998). Ayoki et al., 2005 used the ideas of revenue mobilization to buttress fundamental policy questions that exist the avenues for fast and lagging revenue growth for a country, focusing on tax reforms and macroeconomic issues. In general the use of revenue mobilization in connection to tax reforms is to assess the productivity² of given tax structures (Prest, 1962 and Ariyo, 1997). Further analysis has also helped in distinguishing which proportion revenue growth is within and without the power of the state (Mansfield, 1972). The methodology used in analysis of tax reforms in relation to revenue mobilization has been the computation of tax elasticity and buoyancy over time.

3.2: TAX REFORM STRUCTURE IN DEVELOPING COUNTRIES

Generally raising of revenue through taxation to adjust the budgetary imbalances faced by most less developed countries (LDC) during the crisis of the mid 80s has been a complex situation. The challenge to this domain arose from the tax administration, few tax payers due to non-compliance by the tax payers, limited base

as a result of numerous exemptions, disincentives effects as well political complexities. This resulted to a situation where most state revenue mobilization fall short of the required expenditure. Hence there was a need for an urgent restructuring and reform of the tax structure in most of developing nations confronted with persistence budget deficit (Ahmad and Stern, 1991; Fjeldstad and Rakner, 2003). This chapter intend to briefly highlights the elements of tax reforms in developing countries, with more emphasis on the role of tax reforms, specifically the reforms of indirect tax structure in mobilizing revenue in developing countries.

3.3: ELEMENTS OF TAX REFORM IN DEVELOPING COUNTRIES

Musgrave (1987) pointed out that tax reforms in developing countries should consist of broad economic policies that should give adequate attention to the tax structure design and administration without necessary satisfying it revenues objectives. Though revenue target is important, the reforms must take into consideration the minimum level of taxation that each nation can attain. Tax reforms should serve as a means to restore buoyancy to revenues, strengthened modern taxes and reduce the complexities as well as improving the transparency of the system (World Bank, 1990). In general tax policies adopted by Africa countries are almost same like those advocated by the developed countries, though having different economic and cultural background. Developing countries had tended to modify their tax system in same direction like those earlier adopted by developed countries irrespective of their economic and cultural background. The advocated tax policies include:

- The introduction of the Value added tax.
- Simplification of tax band and broadening of tax bases.
- Lowering of personal and corporate income tax.
- Reduction of imports duties and simplification of the rate structure.
- Abolition of exports duties.
- Simplification of excise duties structure
- Restructuring of the tax administration.

The pattern of the tax reforms in developing countries, of reducing trade taxes and implementation of VAT to enhance domestic revenue mobilization are in concordance to the IMF and the World Bank conditionalities of SAP and stabilization programs.

3.4: ROLE OF TAX REFORMS IN DEVELOPING COUNTRIES

An improve analysis of tax reforms according to Ahmad and Stern,(1991) will depends on it efficiency in revenue raising ,the distributional impact on welfare and the incentive of the tax system in relation to economic activities. In meeting up with these objectives economic theory play a central role in designing the tax structure. It indicate a benchmark of simple model, from which policy implication can be deduced and finally provide method of collecting and analysis data. This study is concerned more with the raising of revenue through taxation and in assessing the sustainability of the tax system in future generation of revenue for development.

According to the standard theory of taxation, revenue can be raised in two ways. First by directly taxing the households through a lump-sum taxation (direct tax) and by indirectly taxing the transaction between producers and consumers (indirect tax). Though taxes are categorized into direct and indirect, there is no proper tax analysis that can be done independently (Almad and Stern, 1991). This idea only holds to a very limited extent in respect to revenue mobilization. Raising revenue from direct sources as income tax will have very little implication of raising it from the indirect sources. In this light a number of studies on the analysis of tax reforms in raising revenue in most countries had sighted indirect taxes as the dominant income source than from direct sources. The study of Pakistan tax reform revenue analysis indicated that close to about 80% of the country's total revenue is from the indirect taxes where half of the revenue comes from the customs duties (Almad and Stern, 1991). A similar analysis of tax reforms in Central Africa Monetary and Economic Community (CEMAC) member countries to which Cameroon is member indicated a range of 60 to 80% of non oil revenue receipts come from indirect taxes. The importance of indirect taxes or consumption taxes as a main tool of revenue mobilization need not be over emphasized, because they are not unpopular to the political regime in raising revenue as direct taxes can be. Most government in developing countries tends to meet up with their increased public expenditure through imposing of new indirect taxes or by modification of the existing indirect tax rates. In this light the assessment of tax reforms in generating income and productivity of the tax system in LDC and Cameroon in particular is focused more on indirect taxes. Priority is accorded to indirect taxes not only because they constitute an importance and a stable source of revenue but also as taxes in which theory are more better developed.

However due to the fast pace of trade liberalization, in LDC important of indirect taxes in generating revenue is declining (Tanzi, 1994). The *raison d'être* being the insignificant share of indirect tax revenue contributions, based on elimination of exports duty and a reduction of import duties (conceptually *ad-valorem* tax) which have a disincentive effect to production. The liberalization of trade barrier to increase capital mobility in the world will pose a threat to LDC due to their limited tax administration capabilities, over reliance on foreign trade taxes. Another important area of challenge to LDC is in the domain of tax competition. Tanzi and Zee, (2000) had therefore advice the LDCs to refrain from tax incentive which tend to discourage investments. Thus there is a great need for policy makers in LDC to implement reforms which are not only difficult but necessary in enhancing investments activities.

The general trend of tax reforms in developing countries has therefore being that of facilitating trade liberalization through a reduction in trade taxes and a proper enhancement or reforms of the domestic taxes. Ghana experienced an increase in tax revenue of 11% in 1983 to 19% in 1989 after the implementation of tax reforms, in spite the reduction in her trade taxes by 12%, a fall in her trade term and export base (Addison and Osei, 2001). The study concluded that the revenue mobilized in Ghana can be sustainable if such revenue is used to finance pro-poor needs and to set up transparent fiscal institutions. To guarantee continue revenue rising, the legislature was mandated to check the executive until the countries budgetary process become more transparent (*ibid*).

The tax reforms implemented in Cameroon yet to be analyzed in next chapter were in line to those in other developing countries. A number of literatures used the optimum tax theory to explore and analyze whose taxes/bases should be utilized in tax reforms and how to design and set the appropriate tax rates in a tax system without undermining the technology and resource constraint (second best). The optimum tax theory is a sought of a given rate of a tax at which a given amount of government revenue can be raise, with minimum distortion in an economy. In order to achieves social efficiency through a desire adequate income distribution or an improvement of welfare. This work is not gear at determining such optimal tax design for Cameroon but simply to assess if tax reforms facilitate or retard the productivity of a given tax structure in order to fast achieve it optimal tax raising .

Given challenges with difficulties in determining tax revenue, in relation to development and in mobilizing revenue in general. There had therefore been an

upsurge of interest by researchers in determining the yield or productivity of the country's tax system. This is in order to assist the tax authority to know the response of the tax revenue to changes in income and when to seek for additional revenue through the use of discretionary measures. A sort of assessment had been done in many countries by employing the concepts of tax elasticity and buoyancy. It remains one of the main objectives of this study using the Cameroon tax system as a case of reference. This will be properly examined in the methodology section of chapter six, before proceeding to this there is need to have a review of the tax reforms in Cameroon, which is the object of the next chapter

CHAPTER 4

TAX REFORMS IN CAMEROON

This chapter intends to outline the objectives of implementing tax reform in Cameroon and to examine the specific tax reforms on the main indirect tax components or hurdles by the country since 1990. Then Follow by examination of some distortions of the indirect taxes reforms discussed on the economy. While the proceeding chapter will do with the measurement (assessment) of the tax reforms in raising revenues, and the discussion of the general changes of the country tax revenue as a consequent of the reforms.

4.1 OBJECTIVES AND FRAME WORK OF PROPOSED REFORMS

The priority aim of tax reforms in most developing countries today appeared to be more in conformity with domestic revenue mobilization rather than as a tool of management. As earlier noted Cameroon like all other CEMAC member countries objectives of tax reforms is entirely define by the regional conventions on their fiscal harmonization policy, which work in agreement to SAP conditionality. The specific effort of each country is limited only to improvement in tax administration and in reducing exemptions. The Regional Reform Program (RGP) made a number of flexible recommendations, for fiscal reform harmonization in the sub region which objectives were as follows.

- to improve the revenue generating capacity of member countries, through a cut in nominal tariff rate and by reducing the plethora of the existing exemptions.
- Improve on the efficiency and the competitiveness of the domestic manufacturing activity with a uniform spread of the burden across sectors and firms.
- Regional instruments tariff and indirect tax were made more flexible so that the diverse need of member countries could be obtain rationally.
- Recommendations further call for simplification of the tax for transparency and easy administration.

These recommendations were inadequate as the tax structure needed, with more flexible agreement in the sub region. Base on such recommendations, the specific objectives of Cameroon tax reforms implementation were as follow;

According to Gauthier et al 2000; and Fambon 2006,the 1994 tax reforms in Cameroon were not only aimed at fulfilling the IMF/World Bank SAP conditionality's and promoting regional integration of CEMAC (Central Africa

Monetary and Economic Community) member countries but had as its overall objectives to;

- (1) Mobilize domestic resources by improving the yield of tax revenue.
- (2) Increase the importance of domestic taxes and reduce tariffs by eliminating anti-trade biases.
- (3) Minimize the inequality and distortions of the existing tax system.
- (4) Eliminate tax evasion through harmonization of tax regime and general tax reduction.

While

The 1998 tax reform which involved the replacement of the sales tax (turn-over tax) with VAT was the most important reform of the tax system in Cameroon. Its justification as based on economic principle was on revenue raising ability, base broadening with hope of involving the informal activities, and on the neutrality of the system.

4.2 THE SPECIFIC INDIRECT TAX STRUCTURE AND THE REFORMS

As noted, Cameroon's tax structure consists of the direct and indirect taxes. This structure of tax system in Cameroon was examined in the pre tax system in chapter two. This section is basically concerned with identification of the main indirect tax reforms, and the subsequent modifications of the main components of the indirect tax system in the phase of the reforms.

Indirect tax reform in Cameroon just like in any other developing countries have followed a common consensus of a reduction in trade taxes and enhancing domestic revenue collection through implementation of VAT as remarked by Stiglitz and Emran (2000)

With respect to the trade reforms, CEMAC used this strand of reform to harmonise and to reduce inequality of the tax system in the sub region. Moreover the exemptions, evasions and fall in exports price of oil had eroded the revenue of member state enormously. Consequently in 1994 a resolution was passed by defunct UDEAC in complement to the SAP of the IMF and World Bank to reform tax system of the region specifically the indirect tax and tariff structure of the region.

The devaluation of the FCFA in 1994, which resorted to doubling of input prices on imports, precipitated such reforms in Cameroon. The said trade reforms will be examined under the different aspects of the tax system.

A): REFORMS OF THE INTERNATIONAL TRADE TAXES.

The bases of most of these taxes were widened through reduction of exemption of most international transactions. It should be worth remarking here that Cameroon reforms custom or international activities take account to the country's adherence to World Trade Organisation (WTO) and the regional integration of CEMAC. The CEMAC Act No 5/94 which fixes a common external tariff (CET) for non member countries also regulates the country's imports and export duties as well, Cameroon tax code (1994) Custom taxes in Cameroon are levied on CIF value on imported goods, that taxing goods based on their origin principle, like taxing base on the price of the goods in the country where they are produced and include the cost insurance freight to Cameroon main port at Douala. The taxes are imposed either on ad-valorem or specific rates. The ad-valorem rate is used when the mode of the tax base is the quantity and is specific when the tax is assessed based on value of the exchange of the commodity in question. Generally goods with higher tax base elasticity yield larger revenue than those with low tax elasticity. Some of the changes on the country's main taxes include.

1) IMPORT TAX REFORMS

-The former practice of four applicable tariff systems was replaced by a simplified unified system known as "the Common External Tariff" (CET) applied to imports from NON CEMAC member countries. These imports were classified into four categories with tariff rates ranging from 5-30 percent as compared 0-500 percent in the previous system. Those of 5% applied on goods of basic necessity like medications, books, medical equipment, and agricultural inputs, 10% was on raw materials, industrial equipments, chemical products, industrial machines and cars, textiles, industrial spare parts, and other intermediaries were charged at 20% and finally 30% on consumption goods, home products and all other products.

- All privileges related to foreign trade under investment code and special production exemption schemes like tax unit (TU), tax interieure a la production (TIP) and the convention of establishment described earlier in chapter 2 were all eliminated.
- A generalised preferential tariff was introduced on trade between defunct UDEAC nations with CET fixed initially at 20%.

- The due consideration by CEMAC regulation of the difference fragile nature of the industrial environment in member states, where Cameroon like any other member state was granted the right to set an additional protection of a temporary surcharge of not more than 30% on foreign trade (World Bank,1992). These were to be imposed in the form of excise duties on certain consumption goods, especially foreign imported luxury items or those produce locally under foreign license. This was regarded as a way of promoting a complex and unfair tax and duties system in the SSA (Gauthier et al., 2000).
- Other tax reforms on imports include an inspection fees of 0.95% levied on imports at CIF and fees on computer of 1.55 values on import.
- Finally imported goods were also subjected to a quasi value added tax , at 3 difference rates, at zero rate were those completely exempted, at normal rate which faced an increase from 12.5% to 15% on January 1st 1995 to 17% in 1996 and lastly were those import on lesser rate originally fixed at 5% but increase to 8%.

2): EXPORT TAX REFORMS.

- Taxes on exports were imposed on FOB value and include export base like timber levied at 17.5%, 3% to 4 % on logs content of process foreign products, added to was a progressive surtax levied on timber export exceeding 30% of total production.
- Agricultural export attracted an inspection fees of 0.95 on FOB value and port fee levied at a rate of 0.25% on fob value of all exports.

B): DOMESTIC INDIRECT TAX REFORMS

The domestic indirect taxes that were intended in simplify the structure, broadening of the tax base by reducing exemptions and streamlining rates, alongside eliminating distortions of incentive framework include.

- ❖ Elimination of privileges on indirect taxes under special production regimes and investment code, except in the industrial free zone.
- ❖ The replacement of sales tax or production taxes (TU,TIP) by the Turn Over Tax (TOT),Quasi VAT applicable to domestic production ,imported inputs and intermediary productions classified under three categories:
 - Normal rate which rate was increased from 12.5% to 15% in January 1995 to 17% in 1996.

-Lesser rate initially fixed at 5% was increased to 8% in January 1995
(Cameroon tax code, 1995)

The laying down of mechanism for levying excise taxes on certain product. This was clearly specified and fixed at a rate of 25%. Applicable to some of the following special categories of goods, like tobacco products, alcoholic beverages, perfumes and colognes cosmetic and made up products, hair lotions, precious stones, metal, jewellery and so on. The reform applied to similar products when imported.

The 1994 tax reforms in Cameroon became effective in Feb.1994, but those firms under special regimes were granted some few months of transition after this periods. However the implementation of TOT in 1994 tax reforms never yielded any fruit in all directions like from revenue collection, manufacturing enterprises and exporters in Cameroon. Base on the poor performance of the TOT, the government within its medium term policy programme supported by the international financial community focused the country's tax reform more at improving efficiency of the tax administration and full implementation of the VAT. This happened on the first of January 1999, which constitutes the most importance tax reform in Cameroon.

1): VALUE ADDED TAX (VAT) REFORM.

VAT was implemented in Cameroon in 1998 and took effect from 1st of January 1999. It was one of the major tax reforms in the country, where the sales tax or the Turn over Tax (TOT) instituted by 1994 reforms and the quasi value added tax were fully replaced by VAT. The legislation raised and fixed it at a uniform rate of 18.7% which include communal surtaxes and a zero rate. VAT is commonly applied to the following activities in Cameroon: production, services, distribution, construction works and real estate agencies at the uniform rate of 18.7%. Zero rates which imply the goods are entirely free from paying VAT is by law applicable to all export activities in the country. However the Cameroon finance law of 1999 implementing VAT place all agricultural inputs (like insecticides, fertilizers and their other packages) to be fully exempted from VAT. The VAT exemptions categories were further extended to involve some sensitive products and necessities like in areas of health, such as single use syringes and packaging of medications, as well as medical drugs. Though Cameroon adoption and implementation of VAT at a uniform rate, like many other developing countries, is justified as a possibility of overcoming weak tax administrative problem and evasions as acknowledge by Tanzi and Zee (2000);

Shome (1999) and Cornely, (1995). The country main priorities were to generate more revenue for development, broadening of the tax base, and to benefit from the efficiency of the VAT. Whether these objectives of VAT reform have been fulfilled remains the object of the next chapter.

C): TAX ADMINISTRATIVE REFORM.

-Hence the following changes were effected in regard to the tax administrations:

- The organisation of external and internal services within the government.
- The establishment of taxpayer registration system; and
- Improvement in the taxpayer education and information, and the development of data processing capabilities to facilitate tax management.

CHAPTER 5

MEASUREMENTS AND ESTIMATION

A series of tax reforms has taken place in Cameroon, after the economic crisis of 1987/8 and devaluation of franc CFA in 1994. The objective of these reforms were to mitigate some regular fiscal imbalances in the economy. The country's therefore required a revenue structure that is flexible enough to ensure greater revenue without constantly resorting to discretionary policy or inflationary financing in fostering the country's economic growth and development. Consequently, Cameroon needs a flexible tax structure that the revenue yield should respond faster than the national income, so as to cover up expenditure growth. This requires that all individual taxes be designed so that yield is responsive to national income changes and the predominant taxes in the tax structure are of elastic yield to their proxy bases of GDP income. A flexible tax system will also be more effective in stabilizing an economy during booms and slumps than a rigid tax structure (Muriithi and Moyi, 2003). This form of information is lacking in respect to Cameroon's tax system.

Thus one of the objectives of this study is to assess the response of the country's tax system, due to the tax reform, particularly the indirect tax structure which has been the focus of the country's tax reform. This analysis will be extended by reviewing some of the specific effects of the tax reforms to the economy. The most common criteria used in assessing the yield of tax systems in developing countries has been the analysis of response of the tax revenue to changes in income (Prest, 1962; Sohota, 1961; Lavin, 1968; Mansfield, 1972 and Chellah, 1971). This has often been done by applying the concepts of tax elasticity and buoyancy (Sohota, 1961; Mansfield, 1972). This work adopt the concept of elasticity and buoyancy to asses the tax yield in Cameroon, our reference paper being the work of Mansfield 1972, which was recently adopted and used by Chipeta (1998) for Malawi; Murrithi and Moyi (2003) for Kenya and Ariyo (1998) for Nigeria. Tax elasticity measure the automatic response of revenue to income changes while buoyancy is concerned with the discretionary or the total response of tax revenue to changes in income.

However, for simplicity and data limitation, this work limits its assessment only to few main indirect taxes like import duty and sales/VAT tax for Cameroon. This analysis will be capable to expand our knowledge on the responsiveness of these main indirect taxes and hopefully shed light on their equity and efficiency Amin (2000) as asserted by Murrithi and Moyi (2003) research work.

Lavin (1968) emphasized the relevance of a tax base for each potential tax in evaluating a tax system. Hence according to Mansfield (1972) the elasticity of tax revenue is split into “tax to base” and “base to income”. The determination of such results will help us to identify which components of our indirect taxes under study are flexible or rigid. Those with elastic yield are more predominant in the system and also tell whose components of the tax growth in revenue are based on discretion or policy manipulation. Generally, the tax to base elasticity is within the control of the authority, though its ability may be discredited by macro changes at times, while base to income is an automatically inbuilt and not within the control of the authority.

Mansfield 1972 symbolically summarizes tax revenue elasticity as follows:

Where elasticity of tax to income $E_{T_t} Y = \frac{\Delta T_t}{\Delta Y} \times \frac{Y}{T_t}$

Elasticity of kth individual tax to income $E_{T_k} Y = \frac{\Delta T_k}{\Delta Y} \times \frac{Y}{T_k}$

Elasticity of kth individual tax to base :..... $E_{T_k} B_k = \frac{\Delta T_k}{\Delta B_k} \times \frac{B_k}{T_k}$

Elasticity of kth base to income $E_{B_k} Y = \frac{\Delta B_k}{\Delta Y} \times \frac{Y}{B_k}$

Where; T_t = Total tax revenue, T_k = Revenue from kth tax, Y =income (GDP) or private final consumption expenditure in case of expenditure taxes at current prices.

B_k = Base of a tax kth, Δ = change operator, E= elasticity.

Thus for a system of nth taxes (indirect taxes)

$$E_{T_t} Y = \frac{T_1}{T_t} \left[\frac{\Delta T_1}{\Delta Y} \times \frac{Y}{T_1} \right] + \dots + \frac{T_k}{T_t} \left[\frac{\Delta T_k}{\Delta Y} \times \frac{Y}{T_k} \right] + \dots + \frac{T_n}{T_t} \left[\frac{\Delta T_n}{\Delta Y} \times \frac{Y}{T_n} \right] \dots \dots \dots (1)$$

Where the elasticity of total tax (indirect tax) revenue to income is defined as

$$E_{T_t} Y = \frac{\Delta T_t}{\Delta Y} \times \frac{Y}{T_t} \dots \dots \dots$$

(2)

For k-th individual tax to income is defined as

$$E_{T_k} Y = \frac{\Delta T_k}{\Delta Y} \times \frac{Y}{T_k} \dots \dots \dots (3)$$

NB in equilibrium

$T_t = T_1 + \dots + T_k + \dots + T_K$ Where T_t = Total indirect tax consisting of k different individual taxes in the economy. $k= 1,2,\dots,K$

T_k =revenue from indirect kth tax

Y =income (GDP) or total final consumption income when applied to expenditures taxes.

B_k = base of tax k

Δ =changes operator.

Generally, the income elasticity of k tax is the product of the elasticity relative to base and elasticity of base to income. This can be stated algebraically as

$$E_{T_t} Y = \frac{T_t}{T_t} \left[\frac{\Delta T_t}{\Delta B_k} \times \frac{B_k}{T_k} \right] \times \left[\frac{\Delta B_k}{\Delta Y} \times \frac{Y}{B_k} \right] \dots\dots\dots(4)$$

For a system of n-indirect taxes, the elasticity of the total indirect tax in the systems will be given by product of the tax to base elasticity and base to income elasticity for each separate indirect tax, weighted by the significant of the respective tax in the tax system stated as follow

$$E_{T_t} Y = \frac{T_1}{T_t} \left[\frac{\Delta T_1}{\Delta B_1} \times \frac{B_1}{T_1} \right] \left[\frac{\Delta B_1}{\Delta Y} \times \frac{Y}{B_1} \right] + \dots + \left[\frac{\Delta T_k}{\Delta B_k} \times \frac{B_k}{T_k} \right] \left[\frac{\Delta B_k}{\Delta Y} \times \frac{Y}{B_k} \right] + \dots + \frac{T_n}{T_t} \left[\frac{\Delta T_n}{\Delta B_n} \times \frac{B_n}{T_n} \right] \left[\frac{\Delta B_n}{\Delta Y} \times \frac{Y}{B_n} \right] \dots\dots\dots(5)$$

$K=1,\dots,n$

From the above decomposition, of tax elasticity into two components, the elasticity of the said taxes under consideration can be estimated or computed as follows

ESTIMATION PROCEDURE

Estimating the elasticity of indirect tax as demonstrated above for each indirect tax components can be computed using the model

$$T = \alpha Y^\beta \varepsilon \dots\dots\dots(6)$$

Where T=indirect tax revenue total

Y =tax base (GDP)

α & β = parameters worth estimating, ε = error term or stochastic variable

Taking the log we obtain the log linear specification as follows

$$\text{Log } T = \log \alpha + \beta \log Y + \log \varepsilon \dots\dots\dots(7)$$

in standard form it is reduced to;

$$\text{Log } T = \alpha + \beta \log Y + V_t \dots\dots\dots(8)$$

α = constant, β =elasticity estimate to the tax to base, that is obtain by regression, reviewing to us how a 1% change in income (base) result to a given percent change in tax receipt revenue.

V_t =stochastic disturbance terms

$$V_t = \log T - \beta \log Y - \alpha \dots\dots\dots(9)$$

However, to estimate the elasticity of indirect tax to income, which has been undergoing some discretionary changes such as change in tax base rates, imposing of new taxes, abolition of some taxes and efficiency of tax administration, required some form of adjustment. This adjustment called for isolating the data on discretionary changes based on data provided by governments department several methods exist in doing so.

Prest (1962) techniques involved cleaning the data on discretionary revenue changes using official data on discretionary revenue. Chipeta adopted this approach which is similar to proportional adjustment method used by Muriithi and Moyi (2003) adopted from Mansfield (1972), presented in a simple form by applying the following step;

First by computing

$$T_{ij} = T_t - D_t$$

Where

T_t = actual tax yield in the t-year,

D_t =budget estimate of the discretionary changes in the t-year

Where $t=1 \dots n$

T_{ij} = the actual tax collection of the j-year's adjusted to the tax structure of that existed in year i.

This proportional adjusted method needs revenue yield for each year in the sample period to be adjusted to the revenue generated base on the structure of a reference year or base year

Hence if $i=1$ is the reference year, then the series $T_{11}, T_{12}, T_{13}, \dots, T_{1t}, \dots, T_{1n}$ is tax receipts if the tax structure is not alter in year 1, added to elimination of discretionary changes from year 1. This then constitute the series in measuring the elasticity of a tax.

Buoyancy of these sets of indirect taxes with respect to their bases (GDP) is derived from same regression of the model of logarithm but with unadjusted revenue data.

Thus

$$\text{Log } T_t = \beta_0 + \beta_1 \log (B_t) + \varepsilon_t \dots\dots\dots(10)$$

Where β_1 is the buoyancy ratio and B_t is the base at given time.

The above describes method basic problems could be attributed to the difficulties of obtaining data on the direct receipts revenue, as well as that on discretionary changes, it also assumes that discretionary changes are progressive which might likely not be the case and lastly, the method is too aggregative than other approaches which decompose the elements of productivity measurement thereby providing a better insight into how each component affects the other over response of the tax system.

An alternative approach is isolating discretionary impact of tax system is dummy variable technique (DVT) developed by Singer (1968), where dummy variable are inserted into the equation each year in which an exogenous tax policy occurred. The model is as follows;

$$\text{Log } T = \alpha + \log y + \sum_i \alpha_i D_i + \varepsilon \dots\dots\dots(11)$$

Where D_i ($i = 1,0$) represent a dummy variable that takes value of 1 for each year in which there is an exogenous change in tax policy and a value zero (0) otherwise. Where, α_1 is the coefficient of dummy. A potential problem to this approach is the limited observation when exogenous tax policy changes frequently.

Before rounding up this section of elasticity estimation procedure, it will be worth remarkable that buoyancy and elasticity of tax basically looked alike. Only that buoyancy measures the total percentage changes in tax revenues plus the discretionary changes linked to a given percentage change in income while elasticity of tax

measures the automatic change without considering the discretionary impact. Thus the major differences is in the discretionary changes while tax to tax compares' measures shed light on which tax underwent more discretionary changes.

CHAPTER 6

METHODOLOGY

6.0: DATA CONSTRAINTS

The data on Gross domestic product (GDP) current market prices, final consumer expenditure,(private) and total domestic imports used as proxy bases for the sales tax/VAT and custom duties, inflation, were obtained from World Bank development indicator/statistics of the IMF. The data on sales/VAT, and custom revenues' were not available from this source, so the data on this specific indirect taxes component were obtained from the department of taxes of the ministry economic and finance from the central bureau of national statistics in Yaoundé-Cameroon.

Despite the plausible methods of measuring and estimating the impact of the tax reforms analyzed in the preceding chapter of this paper, the paucity of the required data greatly restricts the different model worth applicable. The non availability of data on discretionary tax policies as well as other changes in the tax policy severely limits the possibility of explicitly distinguishing between the automatic (in-built response of tax revenue growth) and discretionary tax policies. Consequently, the study could not employ the various measures of productivity (yield of the tax system) analyzed in chapter 5 like that of Prest (1962) and Mansfield (1972). However in Cameroon, the 1994 and 1999 tax reforms are considered as the main tax reforms. This study therefore proceed to measure and quantify the effects of the tax reforms on the two indirect tax samples using Dummy Variable Techniques (DVT) of Singer (1968). This was also adopted and used by Ariyo and Chipeta in 1997 and 1998 works. Hence, an estimation of the individual indirect tax elasticity. Mindful of the fact that the growth in tax revenues in a country is not only influenced by, the responsiveness of the tax elasticity to it's base and proxy bases, but by other exogenous factors, the work employs another new technique of capturing these exogenous effects on tax revenue growth. The residuals estimated from each of the regressions used to estimate the elasticity of the tax, review the variability of the indirect tax revenues raising and thus a survey of the level of distortions of the taxes due to reforms are deduced.

6.1: RESEARCH DESIGN

To measure and quantify the effects of the two major tax reforms in Cameroon, a limited time series data from 1980- 2003 was used. This is because time series data on

tax revenue for an extended duration was hard to come by. The scope of the analysis was restricted only to indirect tax reforms, within which two indirect taxes were used as samples. These include sales/VAT taxes (STV) from domestic strand and the custom duty or imports tax (CTM) from the international taxes. A disaggregated data for the two samples is used due to incomplete data availability on total tax revenue and other indirect and direct tax components. Both taxes use the GDP or income as the main tax base, while the specific (proxy) base for the sales/VAT taxes is the private final consumption expenditure (PFCE) and for the custom duty is the total domestic import of goods and services (TMGS).

The analysis is arranged to further highlight development during each of the following periods.

- ❖ 1980-2003 for the general productivity or the overall trends analysis.
- ❖ 1980-1993 vs 1994-2003 with the introduction of (0,1) dummy variable respectively to separate the pre and post 1994 tax reform impact on tax bases used in the analysis.
- ❖ 1994-1998 vs 1999-2003 also with the use of (0, 1) dummy for 1999 tax reform, to identify how the VAT implementation in 1999 affected the tax revenue mobilization in Cameroon.

Considering the above analysis and data in hand, the following regressions equations were estimated using EVIEW and STATA as the main statistical software's.

EQUATIONS:

Log STV= $a_0 + a_1 \log \text{GDP} + \varepsilon_t$	12
Log STV= $a_0 + a_1 \log \text{PFCE} + \varepsilon_t$	13
Log CTM= $b_0 + b_1 \log \text{GDP} + \varepsilon_t$	14
Log CTM= $b_0 + b_1 \log \text{TMGS} + \varepsilon_t$	15

The STV and CTM are the dependent variables and GDP, PFCE and TMGS were the respective regressors. The coefficients of the results for equations 12 to 15 are the Buoyancy (elasticity) coefficients given that the effects of tax reforms on revenues are not yet considered. See table 3a and 3b for the case of VAT below on section 6.2

When I introduced the dummy variable to capture the effects of the tax reforms, not only will the tax function (intercept) change but also the slope will likely change as well (Verbeek, 2004, Kennedy 2003, and Ariyo, 1997). The slope of dummy

equations had been employed into this analysis. This is because I had a strong conviction that similar adjustment would have occurred in Cameroon when they implemented their tax reforms of 1994 and 1999.

The slope equations used to demonstrate the shift (intercept) and slope dummy functions due to the 1994 indirect tax reforms for the two sample taxes used in the analysis are as follow.

$$\text{Log STV} = a_0 + a_1 \text{DUM1} + a_2 \log \text{GDP} + a_3 z_1 + \varepsilon_t \dots\dots\dots 16$$

$$\text{Log STV} = b_0 + b_1 \text{DUM1} + b_2 \log \text{PFCE} + b_3 z_2 + \varepsilon_t \dots\dots\dots 17$$

$$\text{Log CTM} = c_0 + c_1 \text{DUM1} + c_2 \log \text{GDP} + c_3 q_1 + \varepsilon_t \dots\dots\dots 18$$

$$\text{Log CTM} = d_0 + d_1 \text{DUM1} + d_2 \log \text{TMGS} + d_3 q_2 \dots\dots\dots 19$$

Where the shift (intercept) dummy variable function is represented by DUM1 which take values (0,1) with 0 before 1994 and 1 otherwise. To derive the slope dummy function I introduce a second dummies sets (interaction terms) as z_1 , z_2 , and q_1 , q_2 for STV and CTM for the respective sample, which constitutes the product of DUM1 and the explanatory variables. For instance: $Z_1 = Q_1 = \text{DUM1} \times \log \text{GDP}$, $Z_2 = \text{dum1} \times \log \text{PFCE}$, $q_2 = \text{DUM1} \times \log \text{TMGS}$

Hence, in the final analysis equations 12 to 15 were used for None dummies and equations 16 to 19 used for the dummy base scenarios, which appear to be consistent with the logarithmic autoregressive model suggested by Pindyck and Rubinfeld (1981) as reviewed by Ariyo (1997).

As regard the coefficients, in equation 16; a_0 =pre-reform constant, a_2 = Pre-reform STV-tax elasticity, while a_1 and a_3 are the post-reform or the shift of the constant and the elasticity of the STV tax respectively for the 1994 tax reform in Cameroon. Similar logically coefficients interpretations are applied to equations 17, 18 and 19. Thus the indirect tax revenue from STV before 1994 tax reform derived from equation 16 will be given by

$$\text{STV REV.} = a_0 + a_2 \log \text{GDP},$$

And that after the 1994 tax- reform will be obtained as

$$\text{STV REV.} = a_0 + a_1 + (a_2 + a_3) \log \text{GDP},$$

similar regression result can be done for the other equations to determine the tax revenue raised due to reforms if the said coefficients could be determined before hand.

The results of the regressions equations 16 to 19 are presented on table 4a below.

Similar analysis was done for VAT tax, to observe the effects of 1999 tax reform on the respective tax bases and the response of the VAT in raising revenue in Cameroon after its implementation, VAT was considered as a money machine (Keen, 2007). In this case I introduce another dummy variable (DUM2) with value 0 before 1999 and 1 from 1999. In the same manner Z_3 and Z_4 are the product of DUM2 and the explanatory variables which correspond to LogGDP and LogPFCE used as bases. The two last slope dummy equations used are;

$$\text{LogSTV} = e_0 + e_1\text{DUM2} + e_2\text{logGDP} + e_3 Z_3 + \varepsilon_t \dots\dots\dots 20$$

$$\text{LogSTV} = f_0 + f_1\text{DUM2} + f_2\text{logPFCE} + f_3 Z_4 + \varepsilon_t \dots\dots\dots 21$$

Where $\text{STV} = \text{VAT}$, $Z_3 = \text{DUM2} \times \text{LOGGDP}$, $Z_4 = \text{DUM2} \times \text{LOGPFCE}$.

In same manner e_0 and f_0 are the pre-1999 tax -reform constant, e_2 and f_2 are the pre 1999 tax reform elasticity for VAT, e_1 and f_1 are the shift in constant term after the 1999 reform while e_3 and f_3 are the post or shift of VAT elasticity after the 1999 tax reform. These regression results are presented on table 4b below.

6.2: PRESENTATION OF REGRESSIONS RESULT.

Table 3a shows the derived buoyancy coefficient (Elasticity coefficient) for the sales/VAT and custom duty taxes over the period 1980-2003 in Cameroon. Obtained from, the regressions result of equations 12 to 15. The F-values are significant at 90% and 95% confidence level. The adjusted coefficient of determination (R^2) show a good fit of the data where the explanatory variable adequately explain the pattern of behaviors of the dependence variables, except for equation 15 where the value of R^2 is below 50%. There is also a high elasticity index of the two tax sources relative to their respective tax bases. For example column 3 of the table indicates high elasticity (buoyancy) coefficients for sales/VAT tax of above 2% while that of custom duty to GDP is slightly of unit elasticity and 1.5 for the total import of goods and services. The coefficients for both indirect tax samples below are significant at 95% confidence level.

TABLE 3a: REGRESSION RESULT OF TAX BUOYANCY COEFFICIENTS

EQNS	CONSTANT	REGRESSORS	ELASTITICTY (BUOYANCY) COEFFICIENT	F- STAT	R ²	DW	SER
12	-18.43 * (3.385)	GDP	2.69 * (0.4091)	43.44	0.71	0.6629	0.5202
13	-15.65 * (2.793)	PFCE	2.430 * (0.3473)	48.93	0.73	0.6475	0.4983
14	-3.562 ** (1.738)	GDP	1.023 * (0.2087)	12.08	0.55	0.5644	0.357
15	-5.751 * (2.971)	TMGS	1.529 * (0.4251)	12.93	0.41	0.4227	0.3575

NB: *=5% level of significance, **=10% Level of significance.

The values in the parenthesis are the standard error of the regression

Similarly the next attached table 3b, presents the result of VAT from 1995 to 2003, when VAT was used in the country. The result is simply a replicate of the regression result of equation 12 and 13 except that only STV tax revenue is replaced by VAT revenue and the change in time period. The elasticity indices are below unity or inelastic to respective bases used and well justified by high value of R² above 0.90 and also highly significance at 95% level. This implies the VAT tax is not buoyant.

Table: 3b: **REGRESSION RESULT OF VAT TAX BUOYANCY COEFFICIENTS.**

Eqns	constant	Elasticity Coeff.	F- stat	R ²	DW	SER
	4.303 * (0.0895)	0.112 ** (.0102)	48.04	0.99	2.841	0.002
	3.431 * (0,584)	0.2155 ** (0.0681)	10.019	0.90	2.975	0.0066

NB; *=5%level of significance, **=10% level of significance, the standard errors are in the parenthesis.

The next two tables 4a and 4b adjust the effect of the 1994 and 1999 tax reforms respectively. The response of the tax reform is indicated here by using the slope dummy functions, based on equations 16- 21 above. The first column of the table indicates the respective equations used from which the dependent and the independent variables can be referred. For instance equation 16 and 17 dependent variable is the sales/VAT tax and the GDP and PFCE are the respective regressors, equation 17 and 18 have import tax as the dependent variable and the GDP and TMGS as the respective regressors and from equations 20 and 21 VAT is consider as the regresand while GDP and PFCE are the respective regressors. Column 2 and 3 are the values of the constant and the elasticity coefficient before the 1994 tax reform (table 4a). Column 4 is the shift of the intercept (constant) after the reforms. Column 5 is the shift in the elasticity of the tax after the reform. Then follow the F- statistics value, and the column of adjusted R- square show good fit of the results with high coefficient of determination of above 0.75 on average.

TABLE 4A:1994 TAX REFORM OF SALES/VAT AND CUSTOM DUTY TAX ELASTICITY RESPONSE (YIELD) FROM 1980-2003 IN CAMEROON.

Eqns	Pre-reform constant	Pre- reform Elasticity coefficients	Shift of constant	Shift in elasticity	F- Statistics	R ²	DW	SER
16	-1.332 ^{ns} (1.619)	0.553* (0.199)	-3.474 ⁿ (2.273)	0.592* (2.273)	395.05	0.98	1.6917	0.118
17	- 0.211** (1.300)	0.428* (0.166)	-.456* (1.967)	0.739* (0.2439)	428.6	0.98	1.637	0.113
18	4.75 ^{ns} (3.075)	-0.012 ^{ns} (0.379)	0.376** (0.185)	0.068* (.0027)	14.24	0.70	.0459	0.279
19	0.562 ^{ns} (2.995)	0.592 ^{Ns} (0.433)	0.367* (0.144)	0.0526 ^{ns} (0.0309)	12.86	0.69	0.434	0.2710

NB;*=5%level of significance,**=10% level of significance, ns=not significance

Standard errors are in the parenthesis

TABLE: 4b... 1999 INDIRECT TAX REFORM (VAT) AND YIELD IN CAMEROON.

Eqns	Pre-reform Constant	Pre-reform Elasticity coefficient	Post reform constant shift	Shift in elasticity	F-STAT	R ²	DW	SER
20	-3.024 ^{ns} (3.335)	0.9291** (0.3973)	7.327 ^{ns} (6.817)	-.817 ^{ns} (0.787)	10.86	0.89	1.805	0.1337
21	-2.751 ^{ns} (3.460)	0.919** (0.4226)	6.182 ^{ns} (12.720)	-.704 ^{ns} (1.488)	9.90	0.88	1.88	0.139

NB;*=5%level of significance,**=10% level of significance, ns=not significance

Standard errors are in parenthesis.

The next two tables, table 5a and 5b are the computed total respond of the intercept and the slope coefficients (elasticities) of the two respective tax reforms sum by the researcher. This had been done for all the samples taxes in respect to the income base and the proxy base as seen below.

TABLE 5a: TOTAL ELASTICITY SUM COEFFICIENT AFTER THE 1994 TAX REFORM (INDIRECT) -CAMEROON

TYPE OF TAX	BASE(PROXY)	Total Intercept	Total Elasticity coefficient	ADJUSTED R ²
SALES TAX	GDP	-04.806	1.145	.98
“	PFCE	-0.667	1.167	.98
CUSTOM DUTY TAX	GDP	5.126	0.056	.70
“	TMGS	0.929	0.644	.69

Source; computed by the author

TABLE 5b: TOTAL ELASTICITY OF VAT AFTER 1999 INDIRECT TAX REFORM IN CAMEROON.

TYPE OF TAX	BASE	INTERCEPT	ELASTICITY COEFFICIENTS	ADJUSTED R ²
VAT	GDP	10.351	0.1121	0.89
VAT	PFCE	3.431	0.215	0.88

Source: computed by the author.

CHAPTER 7

ANALYSIS AND DISCUSSION OF THE RESULTS

7.1: THE IMPACT OF 1994 TAX REFORM IN CAMEROON (1980-2003).

First I was interested to know if the tax reforms in Cameroon in 1994 had any impact on the sales/VAT tax and the custom duty tax on revenue mobilization in general with respect to changes in their bases. So I did a test of coefficient of the dummy for the constant term and that of product of the explanatory variables (shift) for regressions equations 16 -19. That is I test for the equality of the shift of the constant term and shift in the elasticity after the reform. For instance in equation 16, I tested if the coefficients $a_1=a_3=0$, $b_1= b_3=0$ for equation 17 and similar tests were performed for equation 18 and 19, though in equations 19 both coefficients of the shift in constant and elasticity were not statistically significance, the result of the tests were all significantly different from zero at 5 % and 10% level of significant. This compelled me to reject the null hypothesis in favour of the alternative that tax reform of 1994 created an impact on the both indirect tax sample used in this study with respect to the intercept and slope (elasticity) and consequently, on their overall revenue mobilization capability. The magnitude of the impact on each individual indirect tax forms varies.. This variation depends on the bases of each tax .Hence the response of sales tax and custom duty tax to the 1994 tax reform were henceforth determined as indicated below.

The result shows that the sales /VAT (STV) taxes recorded a very small increase in slope (elasticity) of 0.039 to GDP and 0.311 to proxy base (PFCE), while the intercept shifted or decreased by 0.22 to GDP and 0.245 for proxy base.(The change in the intercepts and slopes result are shown on table 4a equations 16 and 17) This result need to be interpreted with care because a negative change of the intercept implies there was no autonomous income benefit from the tax reforms while the increase in slope of 3.9% relative to GDP, after the tax reform in Cameroon of 1994, meant that a 1% change in GDP causes the STV to respond by a 3.9% increase in revenue from income. This implies the slope of the STV tax become more elastic (steeper). Consequently, indicating that the increase in revenue raising in Cameroon after the 1994 tax reform was due more to increase in rates of the tax in question than by the expansion of the base (GDP). Similarly for the change of 0.311 on the proxy base(PFCE) means that a 1% change in PFCE result to 31.1% increase in STV tax

revenue raising in Cameroon after the 1994 reform on this strand of indirect tax. These imply the slope of proxy base become steeper (inelastic). Thus the increase in revenue from PFCE was more from high tax rates than the true expansion of the proxy base. However, the PFCE is a more efficient source of revenue mobilization than the GDP comparatively. This is probably because it is not easy to evade this expenditure tax payment by consumers at the final stage in their consumption expenditure.

As regards the custom duty response to the 1994 tax reform, the result shows a decline in intercept of both tax bases by 0.19 for TMGS, and 4.37 of GDP. The decline in intercepts of the custom duty tax suggests that there were more autonomous revenue leakages from the overall country's GDP than from the TMGS. The impact of custom duty tax with an increase in the elasticity from -0.012 to 0.068 in table 4a indicates an insignificant (small) improvement of 0.056 with respect to the GDP. This makes the CTM to become slightly elastic and the base tending to inelastic response. Comparing the 5.6% response of custom duty to 3.9% response to STV tax goes to re-iterate the importance of custom duty as a major source of tax revenue in Cameroon. But on the contrary the response of the custom duty to its proxy base (TMGS) in terms of slope shift also indicates a decline, of approximate 0.54 (the difference between column 3 and 5 of table 4a equation 19). This implies the slope of custom duty tax on TMGS further flattened or become less steep (elastic) indicating the reduction on imports tax rate after 1994 reform. The implied consequence is that the 1994 tax reform successfully controls the impact of rising prices due to the devaluation that took place before the tax reform implementation in 1994. The intuition behind this result is the expansion or increase in the base of TMGS. The increase in the base of this tax proxy base can be explained by a number of reasons; first is the importance of the high need on imports of goods and services especially manufacture imports for our industries, the spectacular elimination of exemptions and the slight improvement in the efficiency of the tax administration.

In spite of the few discrepancies; the overall impact of the 1994 tax reforms is a positive increase in revenue growth in Cameroon. See table 7 and 8 of tax revenue evolution in the appendix. However, the result may not be conclusively tied to the 1994 tax reform alone, considering that other adjustment policies like the SAP, devaluation, would have also affected the revenue growth in the country. The effects of such parameters have not been investigated in this work and are therefore recommended for further research

7.2: IMPACT OF 1999 TAX REFORM

In order to assess the effects of the 1999 tax reform, similar tests of the equality of the post constant and the elasticity coefficients of equations 20 and 21 of table 4b were performed. That is the equality of $e_1 = e_3 = 0$ and $f_1 = f_3 = 0$, in the two respective regression results. Though some of the post coefficients on table 4b were not statistically significant, but the test result shows that there were all significantly different from zero. This led to the rejections of the null hypothesis at 10% level of significance, indicating that the 1999 tax reform in Cameroon did not go without an impact on the revenue raising ability. The estimated response of VAT to the reforms show that the intercept for both bases increases or remain highly positive, see table 5b for the change in intercepts. This implies that there was some significant autonomous Revenue increase due to VAT reforms from other sources, other than from GDP and PFCE. This may constitute other VAT revenue on imports which do not constitute parts of the VAT bases. With regards to slopes (elasticity) of VAT changes, the insignificance shift of negative 0.817 and 0.704 for GDP and PFCE respectively imply there was little or no change in elasticity of VAT after the 1999 reform.

This insensitive response of the slope (elasticity) of VAT is just an indication that the pure uniform VAT of 18.7% require some time lagged before it effective response. This short run effect of welfare reduction will likely adjust in the long run. Thus in the long run, informal activity will be captured by VAT, an advantage of VAT to developing countries pointed by Keen, (2007). This result of VAT is in agreement with the work of Emini,(2000) which concluded that if the VAT implemented in Cameroon was a pure one, then the short run worsening situation or no improvement in welfare will turn to a long run benefit. The high value of the adjusted R- square of above 0.88 is a good fit of the result of this analysis. If setting of a uniform VAT of 18.7% in Cameroon recorded little or no change on it slope (elasticity) relative to it bases, it implies the tax would likely have an improve future performance. Some reasons for the slow response of the VAT may include: resistance of informal sector activities to comply to VAT at the initial stage, the inefficiency of the domestic tax department charge with the collections, high rate of poverty and corrupt nature of the tax official, as well as the difficulties in establishing a tax payer registration system. These reasons could have undermined the 1999 tax reform, for a smooth functioning of VAT in Cameroon.

NB. The table of the tax revenue evolution in Cameroon from 1992 to 2001 on appendix section of this work will also shed more light on the pattern of the result.

7.3: ANALYSIS OF TAX BUOYANCY AND ELASTICITY

The purpose of analyzing the elasticity and buoyancy of the indirect tax system for Cameroon in this section, which tally up with objectives no 3 of this study is simply to identify the total response of each indirect tax samples. The reason is to know which indirect taxes becomes more response (elastic) and which one remain rigid after the country's major tax reform. The implication of this is to help future tax design policy maker to know which taxes need to be changed to become more elastic for the country's future revenue raising. The analysis will further review to us which individual indirect taxes hurdles responses to revenues increases are links to discretionary influences than through natural response of the tax elasticity. Finally the efficiency of the tax administration can be deduced from the decomposition of the tax elasticity.

A) TAX BUOYANCY.

The buoyancy of the individual indirect tax for the study period 1980-2003 can be found in table 3a and 3b. This was estimated by the regressions of equations 12 -15. The values of adjusted R- square portray a good fit of the data on revenue and income.

The sales /VAT taxes is highly buoyant with a coefficient of above 2 for both GDP and the proxy base. This is because of upward adjustment of its rates during tax reform and also due to the difficulties of evading and avoiding such an indirect tax.

The custom duty taxes were also buoyant but their buoyancy index is far lesser to those of sales tax. The buoyancy of custom duty relative to GDP was almost unity. This is probably due to reduction of taxes in imports duty to encourage competitiveness of the home investment. Tax evasion, exemption, corrupt tax administration and the presents of second economy which facilitated tax evasion in Cameroon may as well be responsible for the existing tax buoyancy. The same obvious reason may also explain the non buoyant structure of the VAT tax revenue as illustrated in figure 3b.

B) ANALYSIS OF TAX ELASTICITY

The elasticity coefficients for sales tax and the custom duty for the period before the tax reforms shown on table 4a and 4b of column3, indicates that the main indirect tax components in Cameroon under this study were all income inelastic, signified the narrow base of the tax system. This result is a good fit of the data as justified by the high value of R-square.

After the consecutive tax reforms, the combine elasticity illustrated on table 5a and 5b show that only the sales tax become income elastic. The custom duty tax persistently remains income inelastic relative to its both bases. The reason for this change may be due to possible improvement in tax administration, and also based on the fact that such indirect taxes on good and services are some how difficult to evade. The explanation of inelasticity of the custom tax are the numerous exemption schemes for some imports category, custom fraud, inefficiency of the custom administration and other forms of illegal importation and above all the low level of investment and manufacture could also account for the low imports tax elasticity.

The most interesting result of the elasticity change is that of VAT, though it remains inelastic but have exhibit some level of stability in its elasticity response to its bases, in spite the it new uniform set rate of 18.7%. Thus it is promissory tax with possibility to broadened, consequently can generate more revenue for the country. It slow response in the short period may be difficult justifying, perhaps the inadequate data or the time frame is too short to give a concise assessment of the yield of this tax structure in this analysis, otherwise there might have been increase practice of VAT fraud mechanism and the initial resistance by the growing informal activities to the tax.

Generally the result of elasticity as indicated on table 5a and 5b,shows that over the study period the sales/VAT tax elasticity increased but the intercept declined while for custom duty, intercept increased and elasticity relative to income decline(inelastic) but increase relative to GDP and dropped in case of it proxy base.

C): DECOMPOSITION OF ELASTICITY

However the elasticity of any tax consist of 2 elements the base (tax to base elasticity) and base to income (base to income elasticity). The income elasticity of a given tax is the product of the two as indicated by equation 4 of chapter 5. Given the difficulties of determining the legal base of a tax, the yield of the two indirect tax samples used in

this analysis has been related to an approximate or proxy base which I later relate it to the GDP. This decomposition relation is indicated on table 6 below.

SALES/VAT TAX: The sales tax or the turnover tax was the main domestic indirect tax in Cameroon. After 1994 reform it operates together with the quasi value added tax, but was fully replaced by VAT. VAT is a tax on various stages of production process exclude taxes on intermediary product, thus a reclaim of VAT on input, It is certain that the final burden of the tax is on consumer, consequently I used the private final consumption expenditure as my proxy base for this tax component.

IMPORT OR CUSTOM DUTY TAX: This tax constitutes the main source of revenue in Cameroon from international taxes. The tax is generally imposed on imports (CIF) other than those legally exempted or zero rated. Thus this research used the total domestic imports of goods and services (TMGS) as the proxy base for this indirect tax strand.

TABLE 6: DECOMPOSITION OF TAX ELASTICITY'S 1980-2003.

Tax related proxy base	Tax to income Elasticity		Proxy base to Tax elasticity		Proxy base to income elasticity	
	coefficient	R ²	coefficient	R ²	Coefficient	R ²
SALES/VAT	1.15	0.98	0.89	0.81	1.167	0.98
CUSTOM DUTY	0.059	0.65	0.15	0.34	0,643	0.64

With regard to sales/VAT taxes a positive coefficient of income elasticity indicates some slight increase in production activity at home relative to GDP, but the inelastic proxy base (0.89) implies a low growth of this tax base. However the 1.167 tax to proxy base signified some improvement of the domestic tax department administration in the country. The high value of R- square for the 3 coefficients indicates goods fit of the data and the result.

Custom duty tax, showed a tax to income elasticity of 0.059 (inelastic). The proxy base to income and the tax to proxy base are very low for import duty, implying a

slow growth of dutiable imports and the inefficiency of the custom administration respectively. The fairly low R- square for the 3 coefficients in table 6 indicates a weak relationship between custom revenue collection, tax and imports.

In the final analysis the proxy base to income elasticity for both taxes had been fairly low or inelastic relative to GDP. This can be increased by expanding domestic production scale and increase demand for import and why not a possible reduction of the tax rates of this specific indirect tax.

D) BUOYANCY AND ELASTICITY FOR CAMEROON INDIRECT TAX SYSTEM.

Through out the analysis of this model, the buoyancy had generally dominated the elasticity. The difference had been quite large for both bases for the two samples of indirect tax, the corresponding constant value moving in opposite direction. An indication that discretionary tax, policy is more effective to raise tax revenue.

7.4): EFFECTS OF TAX REFORMS ON THE OVERALL ECONOMIC ACTIVITIES IN CAMEROON -1980-2003.

Consider the time constraints and the unavailability of detail data on some micro/macro variables in Cameroon. Effects of tax reforms on economic activities could not be quantified. The researcher has therefore adopted different techniques, which capture the pattern of economic performance due to tax reform. Under these circumstances I estimated the residual from each tax revenue regression determined by the changes in GDP and proxy base and graph them. This gives an overall trend survey of the country's economic performance due to tax reforms. The logical reasoning behind this approach is that the tax revenue collection varies directly with the type of shocks that hit the economy. A negative shock is an indication of decline in tax revenue which goes in accordance to the overall economic activities. The graph of the estimated residual of sales/VAT and custom duty tax below, clearly illustrate the movement of the country's overall economic activities over the reform period. This may serve as a non quantifiable method of surveying the impact of tax reform on productive activities of an economy. This will however depend on a number of assumptions.

- the country tax system is not characterized with tax evaders and no tax fraud.
- The tax administration must be good and efficient.

- Should be a complete absence of underground or informal economy that tends to undermine tax revenue collection.

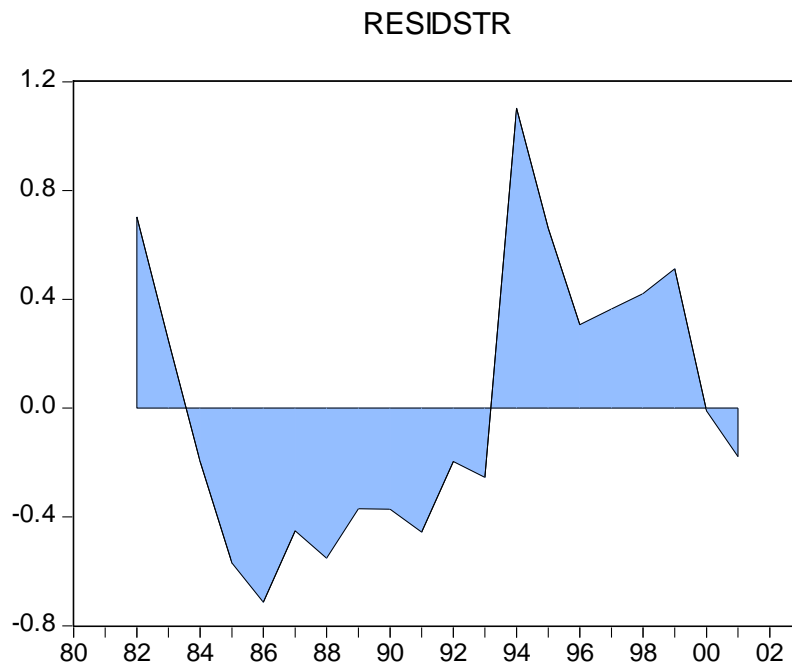


Fig. 4

Source: (My graph).

RESIDUAL ESTIMATES OF SALES/VAT TAX TO GDP CHANGES FROM 1980-2003. CAMEROON

As shown on the plot of sales/VAT residual before 1984/85, positive shocks from oil sector and agricultural sector generated increase tax revenue from this source, but later on negative shock from the economic crisis affected tax revenue, where general economic activity were declining,. The interesting view of this is that as tax reform came in 1994, which cumulated to some positive shock on the tax system. There was an increase in growth rate and general economic performance till the year 2001.. similar pattern of trend of economic activities can also be explain by the alternating shocks that hit the custom tax system as illustrated below on fig.5 below for Cameroon from 1980-2002.

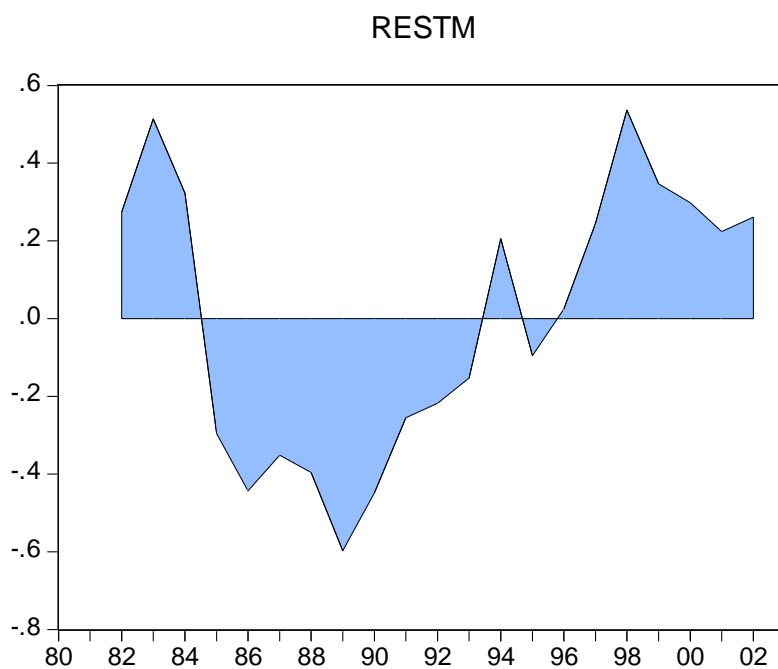


Fig.5 RESIDUAL ESTIMATES OF CUSTOM DUTY TAX REVENUE TO CHANGES IN GDP-1980-2003- CAMEROON

Source: by the researcher.

The above explanation does not, however, indicate the effective distortion caused by the tax reforms, thus consider in particular custom duty tax on imports. The impositions of an additional tax on this tax base create a distortion in the form of lost of welfare or a complete reduction in total imports volume, though, government revenue has increased in general. It is better for the government to reduce the rates of these taxes so as to minimize the distortions and by so doing will further increase the tax base. Thus lower tax rates are more preferable than higher tax rate since they cause very limited distortion on economic activities.

CHAPTER 8

CONCLUSION AND RECOMMENDATIONS

The research focused on the link between tax reforms and revenue mobilization, wherein attempts were made to assess the impact and the influence of the 1994 and 1999 indirect tax reforms on tax revenue raising in Cameroon.

The initial tax system and the obvious cause of tax revenue fluctuation in the economy were reviewed, alongside the role and importance of tax reforms in revenue mobilization in other developing countries. Detailed analysis of the proper indirect tax reforms in Cameroon were ensured, estimating and quantifying the tax reform through estimates of the intercepts and elasticity from a series of regression analysis.

The null hypothesis that the tax reforms in Cameroon had no impact on revenue mobilization were rejected in favour of the alternatives; implying that the 1994 and 1999 indirect tax reforms had an influence on revenue mobilization in the country. However the impact of the indirect tax reforms varies according to different components. It could be realized that the extent of the impact (response) depended on the specific individual indirect tax hurdles and the respective bases.

. The impact of the 1994 tax reform on the two samples indirect taxes that is the sales/VAT tax (STV) and custom duty tax (CTM) in respect to their tax bases indicates the following results;

At the intercept the STV recorded a negative drop of 22% and 24.5% for its two respective tax bases, which are the GDP and the private final consumption expenditure (PFCE). The response of the elasticity (slope) resulted to an upward shift of 0.039 for GDP and 0.311 for PFCE which signified an elastic response (high tax rates) in tax revenue raising.

Similarly the CTM response to the tax reform shows a decline at the intercept of 19% and 43% for its tax bases which are the GDP and the total imports of goods and services (TMGS). The impact of CTM on the slope showed a positive or upward shift of 0.056 on the slope with respect to the GDP (elastic response) but a downward (negative) shift of 0.54 in respect to the proxy base (TMGS) corresponding to an inelastic response of the tax.

The stated results of the STV and CTM relative to their tax bases due from the 1994 tax reform in Cameroon can be given the following interpretations.

The experience decrease in the intercept (constant term) of STV, implies an autonomous leakage in tax revenues for STV from its respective tax bases of 22% and 24.5%. The increase /upward shift of the slope of STV resulted to increase in its tax revenue by 3.9% from changes in GDP and 31% from PFCE. This generated more revenue, but which was only in the short term because of the contraction or inelastic response of the tax sources (bases).

The CTM intercept decline for the overall GDP and on the TMGS implies there was no autonomous revenue increase from the tax sources rather there was a leakage of 19% and 43% out of CTM respective tax bases. As regard to the slope the indicated result of an upward shift in the slope by 0.056 of GDP means the CTM tax revenue increase by 5.6% from this base. However the contradicting decline or downward shift in the slope of the CTM tax in respect to TMGS showing an inelastic response has a negative impact that resulted to 54% decline of this tax revenue. This decrease in CTM tax revenue due to the reduction of the tax rate by tax reform was only a short run effects intended to counter the effect of rising prices on imported goods caused by the devaluation of the country's currency in 1994. This was an efficient policy because in the long run the bases of CTM broaden with a positive response to tax revenue yields.

The impact of the 1999 tax reform that completely replaced consumption taxes by uniform Value Added Tax (VAT) of 18.7% show a positive shift in the intercept of VAT by 10.35% and 3.43% in respect to GDP and PFCE as tax bases. The elasticity response (slope) was not significant. The implied result of the intercept shows that there was an autonomous revenue realised. This could possibly be due to the ability of the VAT to capture other activities out of its specific tax base. The little or no change in the elasticity inspite the step up VAT rate by 18.7%, indicates the insensitivity of the VAT the 1999 reform in the short run. This deserves some particular attention by the state.

A comparative analysis of the different indirect tax hurdles showed that CTM become more responsive to revenue yield than STV in the post 1994 reform period. VAT remains rigid to revenue mobilisation after the 1999 tax reform.

Other findings of the research from the analysis of elasticity and buoyancy with regards to the third objective proved that before tax reforms in Cameroon; both indirect tax samples had an inelastic response to changes in their bases, while the post reforms, result of the sales /VAT tax became more responsive (elastic) and the

customs duty remained inelastic. Again there were signs of dominant use of discretion in mobilising revenue than through in-built response of the elasticity.

As regard the question of level of distortion of tax reforms in Cameroon, though not one of main objectives of this study an overall survey of the analysis was done, the results show that the shocks that affect tax revenue collection tend to determine the trend of the economic activities in the country. This study strongly recommends future research to a deeper finding of how the tax reforms in Cameroon affected the efficiency of the overall economic activities.

Finally, conceivable policy implication of the above results is that though there was a stable revenue mobilisation after the 1999 tax reform, but in general there was an overall increase in the country's revenue especially after the 1994 tax reforms but the system is still characterised with lot of revenue leakages which need to be checked and controlled. The inelastic response of the indirect tax bases is also an issue for policy maker to address.. There is need to tend the country tax bases to be more responsive (elastic) in order to guarantee a sustainable future revenue growth. Lastly a tax system with regular use of discretion may not be a credible environment to investment.

Consequently few recommendations had been suggested below as a possible remedy to tax revenue mobilisation process in Cameroon..

Recommendation

-First, there is the need to perform this analysis in larger scales in order to have a response of the different taxes for the entire country for better tax policy design for Cameroon. This will require the need to improve the tax data collection system for the country.

-Secondly, the need to broaden the country's tax bases through a reduction in tax rates, tightening of revenue leakages through continuous improvements of the efficiency of the tax administration, fight against tax fraud, evasion through mass education of the tax payer, and computerization of the various tax bases.

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APPENDICES

APPENDIX A

TABLE 7

Evolution of tax revenue (in billions CFAF)

	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/1	2001/2
GDP	3155.3	3416.3	4130.0	4130.0	4571.0	4932.0	5240.0	5406.0	5827.0	6320.0
Oil revenue	111.5	64.3	107.4	142.8	204.2	204.4	133.4	325.0	311.0	455.7
Non-oil revenue	206.9	238.7	364.6	442.8	472.4	584.5	644.8	701.4	795.0	801.0
Income tax	75.2	65.5	73.6	85.6	101.2	131.2	162.8	182.3	215.5	215.6
Corporate income tax	13.2	13.7	22.4	29.5	35.0	44.6	81.7	88.9	86.0	86.0
Personal income tax	33.9	28.9	35.8	35.6	35.0	44.0	52.5	56.7	92.0	92.0
Other direct taxes	28.1	22.9	14.5	20.5	31.2	42.6	28.6	36.7	35.5	37.6
Goods and services taxes	53.4	56.4	129.4	157.9	158.3	188.7	227.1	251.7	281.0	265.0
Domestic turnover tax, including VAT	22.7	20.7	101.4	107.9	100.2	130.4	162.5	193.6	197.0	199.0
Taxes on the sale of oil products	30.7	35.7	28.0	50.0	58.1	58.3	64.6	58.1	64.0	66.0
Foreign trade taxes	116.6	103.4	147.5	184.3	201.7	234.8	237.9	243.2	296.0	296.0
Import duties and taxes	78.1	68.6	105.3	133.1	154.1	191.9	211.6	228.6	281.0	281.0
Export duties and taxes	38.5	34.8	42.2	51.2	47.6	42.9	26.3	14.6	15.0	15.0
Other tax revenue	15.8	13.5	15.0	15.0	11.2	9.8	17.0	24.2	24.5	24.5

Source: Ministère de l'Economie et du Budget (2002), IMF (1998, 2002).

NB: The table is from the FAMBON research work on taxation in developing countries

table 8 show tax revenue evolution in Cameroon from 1992- 2001 in billion of FCFA.

NB: The table is from the FAMBON research work on taxation in developing countries

Table 4
Annual per cent changes

	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/2000	2000/1	2001/2
Oil revenue	-32.7	-42.4	67.0	33.0	43.0	0.1	-34.7	143.6	-4.3	18.3
Non-oil tax revenue	-4.1	-8.5	52.7	21.5	6.7	19.5	14.2	8.8	13.3	
Income taxes	2.0	-12.9	10.9	17.8	18.3	29.6	24.1	12.0	17.1	
Corporate income taxes	2.2	3.7	63.4	32	18.6	27.4	83.2	8.8	13.3	
Personal income tax	-10.9	-14.7	23.9	-0.7	-1.6	25.7	19.3	8.0	62.3	
Other direct taxes	23.3	-18.5	-36.9	41.8	52.2	36.5	-32.9	28.3	-3.3	2.5
Taxes on goods & services	8.3	5.5	129.6	22.0	0.2	19.2	20.3	10.8	3.7	5.3
Domestic turnover taxes including VAT	11.3	-8.9	390.3	6.4	-7.2	30.1	24.6	19.1	1.8	2.8
Taxes on the sales of oil products	6.9	16.1	-21.5	78.6	16.2	0.3	10.8	-10.1	10.2	13.6
Foreign trade taxes	-9.7	-11.3	42.7	24.9	9.4	16.4	13	2.2	21.7	21.7
Import duties and taxes	-11.4	-12.2	53.6	26.4	15.8	24.5	10.3	8.0	22.9	22.9
Export duties and taxes	-6.0	-9.6	21.2	21.3	-7.0	-9.9	-58.7	-44.5	2.7	2.7
Other tax revenue	-22	-14.4	11.4	-0.1	-25.3	-12.5	75.5	42.4	1.2	1.2

Source: See sources in Table 1.

NB: The table is from the Fambon research work on taxation in developing countries

Showing the annual tax revenue growth of the different taxes in Cameroon in percentages.

TAX REVENUE GROWTH IN PERCENTAGES IN CAMEROON FROM 1992-2001

APPENDIX B

YEARS	GDP	TMGS	STV	CTM	PFCE	DUM1	DUM2
1980	1410	1027			1104	0	0
1981	1796	967			1426	0	0
1982	2173	936	20	146	1530	0	0
1983	2618	894	21	173	1907	0	0
1984	3195	1017	23	174	2281	0	0
1985	3839	1266	26	131	2815	0	0
1986	4106	1221	27	107	3038	0	0
1987	3922	1042	31	92	3099	0	0
1988	3644	1065	23	91	2880	0	0
1989	3513	1215	25	91	2808	0	0
1990	3353	1094	22	90	2659	0	0
1991	3340	957	20	89	2604	0	0
1992	3195	857	23	78	2667	0	0
1993	3155	758	21	69	2600	0	0
1994	3416	789	101	105	2804	1	0
1995	4125	1121	108	133	3319	1	0
1996	4571	1141	100	154	3778	1	0
1997	4932	1141	130	192	3991	1	0
1998	5240	1006	162	212	4238	1	0
1999	5406	1198	193	229	4986	1	1
2000	6612	1414	197	281	5269	1	1
2001	7061	1484	199	281	5719	1	1
2002	7583	1489		293	6142	1	1
2003	7917			316	6506	1	1

GDP= Gross Domestic Product; TMGS= Total imports of goods and services.

STV= sales tax revenue: CTM= custom duty tax revenue:

PFCE= private final consumption expenditure.

APPENDIX B: Show the time series tax revenue data for STV and CTM for Cameroon from 1980-2003.

APPENDIX C

Eqns	Constant	Elasticity Coefficient	Lagged Elasticity	Slope	Shift	R ²
16	5.88* (2.32)	1.777* (0.596)	-1.9398* (0.4152)	-12.854** (2.745)	1.564* (0.332)	0.89
17	9.286* (1.775)	1.092** (0.596)	-1.693* (0.4218)	-15.951* (2.238)	2.008* (0.278)	0.92
18	5.889* (2.323)	1.777* (0.596)	-1.939* (0.415)	-12.804* (2.745)	1.564* (0.333)	0.91
19	-2.643* (2.824)	0.9322 ^{ns} (0.5606)	0.122 ^{ns} (0.560)	0.479* (0.1442)	0.0013* (.0037)	0.852

NB;*=5%level of significance,=10% level of significance, ns=not significance**

Regression results of equation 16 to 21 including lagged variables.

Regression of VAT

Eqns	constant	Elasticity Coefficient	Lagged Elasticity	Slope	Shift	R ²
20	-0.288 ^{ns} (1.927)	3.044* (0.57)	-2.444* (0.4892)	-1.022 ^{ns} (6.279)	0.163 ^{ns} (0.716)	0.852
21	2.143 ^{ns} (1.944)	2.745* (0.725)	-2.433* (0.656)	-10.819 ^{ns} (9.963)	1.3183 ^{ns} (1.155)	0.787

NB;*=5%level of significance,=10% level of significance, ns=not significance**

APPENDIX D

ESTIMATED RESIDUAL for STV from equation 16 regression used to plot the graph of figure 4.

1980	NA
1981	NA
1982	0.702956
1983	0.249293
1984	-0.196912
1985	-0.569540
1986	-0.713139
1987	-0.451338
1988	-0.551548
1989	-0.369428
1990	-0.371541
1991	-0.456374
1992	-0.196912
1993	-0.253904
1994	1.102332
1995	0.660706
1996	0.306857
1997	0.364216
1998	0.420905
1999	0.511885
2000	-0.010711
2001	-0.177804
2002	NA
2003	NA

ESTIMATED RESIDUAL for CTM REGRESSION OF EQUATION 18 USED IN FIGURE 4 PLOT

1980	NA
1981	NA
1982	0.274125
1983	0.514009
1984	0.322667
1985	-0.296063
1986	-0.443092
1987	-0.351732
1988	-0.396045
1989	-0.597528
1990	-0.448174
1991	-0.254770
1992	-0.217943
1993	-0.152847
1994	0.205718
1995	-0.094914
1996	0.024650
1997	0.245192
1998	0.536828
1999	0.346880
2000	0.298042
2001	0.224161
2002	0.260835
2003	NA