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Identifying Sources of Growth and Competitiveness in the Context of the New World Trade Regime: Case Study for Cameroon

by

Arsene Honore Gideon Nkama

Assistant Professor,

Faculty of Economics and Management

University of Yaounde II, Cameroon

Personal address

P.O. Box 12506 Yaounde, Cameroon

e-mail: ahgnkama@yahoo.com

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1. Introduction

Cameroon is experiencing a long-term negative current account deficit. To find a solution to this problem, the country needs to intensify and diversify its exports while reducing imports of both goods and services. Primary products have accounted for more than 60% of Cameroon's exports revenues. Because prices of commodities are volatile at international markets, Cameroon future development cannot be supported by such products. It becomes a necessity for the country to diversify its exports to non traditional products. Non traditional exports would help the country reduce the deficit of its current account and then mobilize resources for future development. Another point concerns the Cotonou Agreement according to which African, Caribbean and Pacific countries should reciprocate by allowing European Union (EU) products entering their territories free of taxes. In fact, EU represents the main market of Central Africa Economic and Monetary Community (CEMAC) exports. This market has been privileged because of non-reciprocal preferences accorded by EU to some ACP (African, Caribbean and Pacific group) products through the Lomé Convention. Lomé IV-bis expired on February 2000. Negotiations between the two groups led to a new agreement, the Cotonou Agreement. EU introduced radical changes because not only trade preferences have had limited impact but also because the Lomé convention was incompatible with the rules of the World Trade Organization (WTO). ACP and EU agreed to establish a new trading system that would pursue trade liberalization between the two parties. The present non-reciprocal preferences would continue until 2008 when Regional Economic Partnership Agreements (REPAs) will be applied to each ACP region. That means ACP partners would maintain their current preferential access to European market, but would have to reciprocate by opening progressively their own markets to European products by the 2008 horizon.

The two situations call for the identification of new sources of growth and competitiveness in the context of actual globalized world. In fact, there is a need for Cameroon as for many other developing countries to identify new sectors on which would rely its long-term growth. Such sectors would help the country improve its benefits from international trade and avoid being marginalized in the context of increased liberalization among countries.

This paper explores new sources of growth and competitiveness in Cameroon in order to increase the country's benefit from international trade in the context of the New World trade regime. The paper is organized as follows: section two is a brief review of the literature on the concept of competitiveness; section three presents the secondary sector of Cameroon with an emphasis on the manufacturing sector; section four analyzes economic environment that can affect industrial competitiveness; section five presents the methodology while section six outlines the main findings. In section seven, the last section, Important policy recommendations are discussed.

2. The Concept of Competitiveness

Globalization has given an important dimension to the concept of competitiveness. Today, this concept is being used by policy-makers, businessmen, academics, the man on

the street... each group sometimes giving to the concept a particular definition. In the economic domain, there is much debate on the concept of competitiveness. Competitiveness can be used to refer to an advantage of firms or industry vis-à-vis their competitors in domestic and international markets. Defined in this way, competitiveness is analyzed at microeconomic level. A firm is competitive if it can produce goods of equal or higher quality at lower costs than its competitors, leading to increase in sales and profits. Some authors have written about the microeconomic concept of competitiveness: Porter (1990); Markussen (1992); Cogneau (1992); Siggel (1993); Siggel and Cockburn (1997). At this level competitiveness can be measured by the market share of a given firm, its final-good price; its profitability, its unit costs...

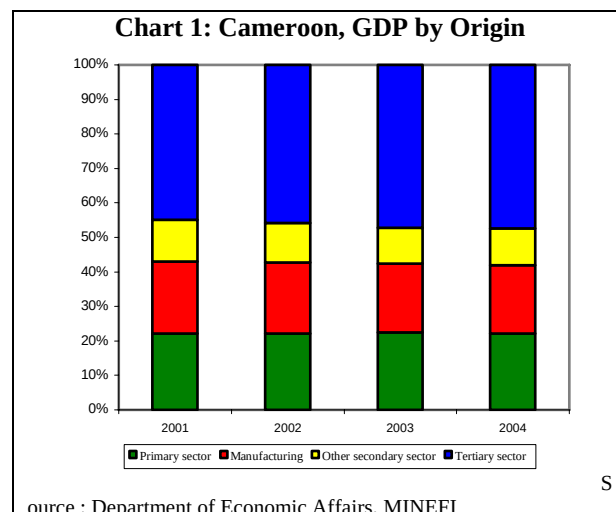
It is possible to extend the concept of competitiveness to entire economies. At this level, competitiveness is equivalent to higher performance of an economy (or economies) relative to other economies. The term performance can refer to growth, well-being, success in exports ... A country can be competitive at different ways: when its trade balance (or its balance of payment) is positive (Lafay 1976; 1987), if its world share in the sales of a particular product is increasing (Mandeng 1991), if the well-being of its inhabitants is increasing ... For Krugman (1994) if a firm can go bankrupt because of the lack of competitiveness, this is not true for a nation. Consequently, the concept should not be applied without restriction in the case of an entire economy.

In the context of the present analysis, the definition adopted is the one very common to policy-makers, firms and even populations: competitiveness is the capacity to sell one's products profitably. A competitive firm is a firm that can sell at lower prices products of better quality than can't do its competitors. To achieve this goal, a competitive firm has to produce products of good quality at lower costs. Competitiveness is therefore analyzed here at a microeconomic level. Competitiveness is a relative concept in the sense that a firm (nation) will always be competitive relative to another firm (nation).

3. The Secondary Sector of Cameroon

Cameroon's economy is dominated by the tertiary sector which accounts for 47% to GDP, followed by the secondary sector, 31% and the primary sector, 22%. The primary sector that was the locomotive of the economy (45 to 50% of GDP) during the last decades had lost its first place by the end of the 20th century.

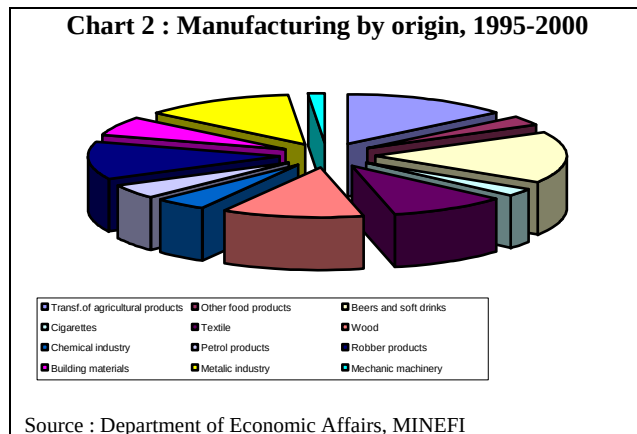
The tertiary sector is dominated by commerce, restoration and hotel (47% of tertiary GDP), followed by merchants services other than financial, banking and insurance services. Transports, warehousing and communications are the fourth component of the tertiary sector (14.5%), coming just after merchant



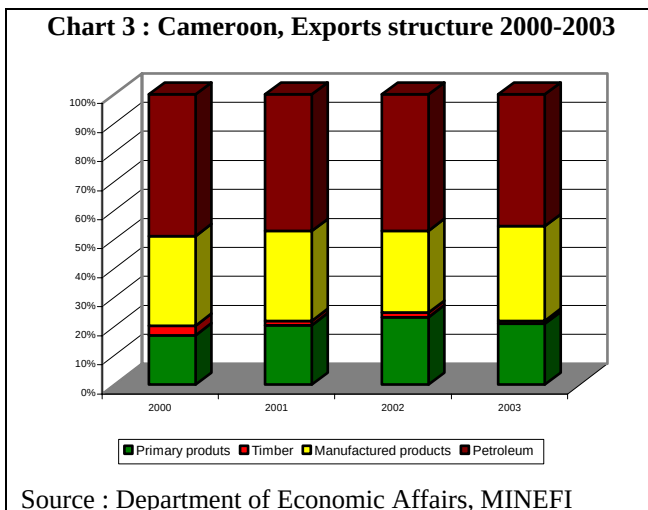
services of public administrations (16.5%).

Manufacturing is the main component of the secondary sector and represents about 65% of the sector. Extractive industry represents 23% while building and public works accounts for 10% of the secondary sector. The production and distribution of electricity, water and gas is marginal with only 2% of the manufacturing GDP.

Manufacturing activity is dominated by some 30 large firms whose contribution to total manufacturing is in the range of 70-80%. These firms are found in the production of aluminum and aluminum products, the production of beers and soft drinks, tobacco, vegetable oil, cement, matches, soap, paints. There are several thousand companies with fewer than ten employees. According to the Department of Economic Affairs, Ministry of Economy and Finance, a large majority of Cameroon's firms operate under their full capacities. This is one of the reasons why many firms remain inefficient and non-competitive at both domestic and export market.



The manufacturing sector accounts for 31% to Cameroon's total exports revenue just behind petrol (47%) and before export of commodities (20%). Exports of timbers are gradually decreasing (and represent 2% of total exports revenue between 2001 and 2003) because of forestry reform according to which timber has to be transformed before being exported. Manufacturing exports experienced a weak increase (2.6%) between 2001 and 2003. This poor performance can be explained by the decrease observed in 2001 and 2002. This situation presumes the weak competitiveness of Cameroon's manufactured products at international markets. The main exported products are among others; wood products (more that 45% of manufacturing total exports revenue) fuel (18%), aluminum and aluminum products (17%), cocoa butter (7%).



4 Economic Environment

This section analyzes all factors that can affect firms' competitiveness and which cannot be controlled by firms. Among these factors are the cost, the quality and the availability of public service utilities such as water and electricity, transport facilities, communication services. The exchange rate policy, the factors market, the cost of credit and the tax regime do affect the performance of firms. They also need to be presented in order to better analyze and understand the performance of the manufacturing sector.

4.1 Basic infrastructures

Roads

Cameroon's road network is estimated at 49,000 kilometers of which 5,400 kilometers of paved roads and 17,000 kilometers of laterite roads. Lack of good maintenance observed during the 90s has reduced the quality of Cameroon's roads. As a result, and according to the World Bank, only 25% of Cameroon's roads network was at good condition in the earlier 2000. Poor road network increases transport cost and while limiting movements of goods and services thus hampers firms' competitiveness at both domestic and international market. Presently, efforts are observed at government level with Road Funds and the involvement of the private sector in road maintenance in order to increase the quality of the network

Concerning transport costs, international transport comparison outlines that Douala-Bangui corridor is among the most costly corridors in Sub Sahara Africa with about USD 5 per kilometer. An extrapolation of this cost to Douala-Bertoua or Douala-Garoua implies higher transport costs in domestic transport of goods.

Table 1: Estimated transport cost for container (maximum 28 tons in 40')

	Distance (Km)	Total cost (\$)	Cost (\$ per Km.)
Mombassa-Kampala	1440	3250	2.26
Dar es-Salaam – Kigali	1650	4980	3.02
Dar es-Salaam – Lusaka	2000	4230	1.76
Dar es-Salaam – Harare	2490	4013	1.61
Abidjan – Bamako	1230	2192	1.78
Douala – Bangui	1600	7900	4.94

Source: UNCTAD Secretariat 2003

Railways

The main **railway line** is the Transcameroonian which connects Douala to Ngaoundere via Younde and Belabo for a distance of 930 km. The national railway operator has been privatized in 1998. CAMRAIL took over operation in 1999. The railway plays an important role for domestic freight, transport services and provides transit mainly for Central African Republic and Chad. An Investment program financed by the World Bank, the European Investment Bank and many local commercial banks has rehabilitated and modernized railway infrastructure.

Airports

There are 15 **airports** in Cameroon of which three are international airports (Douala, Yaounde and Garoua). Cameroon Airlines (CAMAIR) is the national company that operates as a monopoly at domestic flights, National Airways, a small private company, being less equipped to compete. CAMAIR is being restructured for future privatization. Efforts are undertaken by the authorities to restructure the company.

Ports

More than 95% of Cameroon external trade is carried out through the **main port of Douala**. Before the ongoing reform, the port was considered as the costliest and the least efficient in the West Africa coast. According to Economic Intelligence Unit, Douala port's shipping charges are double the average in the West African ports. Before government's intervention to organize activities at Douala port, it usually took an average of 21 days to unload a container, compared to less than seven days on average in West African ports. This affected significantly domestic producers' competitiveness at international markets. To overcome this handicap for economic growth, the government undertook some important measures including reduction of port costs and tariffs and establishment of a consultative committee with the private sector. Government measures consisted in the following reforms: the institutional reform that split the ONPC (Office Nationale des Ports du Cameroun) into four autonomous ports: Douala, Kribi, Limbe and Garoua; the rehabilitation and modernization program; the computerization of the system and the creation of the "Guichet Unique". The objective is to reduce the delay to 7 working days for export and 2 days for import.

Telecommunications

Cameroon's telecommunication network is being developed since the liberalization of this sector. Because of liberalization that led to the creation of cell phones companies, access to telephone has increased. In 2002, 43 inhabitants out of 1000 had access to cell phone while the ratio for fixed phone was estimated at 7 over 1000. The telephone cost is in line with the average in Africa at about 30 cents US per call of tree minutes. However, access to fixed phone is still difficult and time consuming in Cameroon.

Table 2: Fixed phone subscribers and cost in selected countries

Countries	Total subscribers per 100 inhabitants in 2003	Cost of local call (\$ per 3 minutes) in 2001
Rwanda	1.64	0.04
Cameroon	5.13	0.06
Uganda	3.27	0.13
Senegal	7.77	0.11
Bostwana	37.19	0.02
Africa	8.66	0.06

Sources: ITU 2005(subscribers) and WDI 2003 (cost)

Electricity

The main production of electricity is based on the Sanaga River. Two dams on this river, one at Edea, another at Song Loulou generate most of the country's total hydropower energy. Another dam is at Lagdo in the North. Installation at Nachtigal Falls on the Sanaga River for which feasibility studies were completed in 1991 is still awaited.

Hydroelectric plants and thermal stations also produce electricity. The Societe Nationale d'Electricite du Cameroun -SONEL - has been privatized and is actually ruled by American owned AES-Sonel that produces about 3.5bn kwh, which is supplied to some 452,000 subscribers. Cameroon faced a downward trend in electricity production between 2000 and 2003, leading to selective electricity cuts.

Hydroelectricity caters for 95% of Cameroon's electricity demand. Industry is the major consumer with ALUCAM (the aluminum plant) taking 56% of total production in 1995 according to AS-SONEL. The so-called "special customers" of AS-SONEL are five large plants: ALUCAM, SOCATRAL the aluminum products manufacturer, CPPC the papers producer, CIMENCAM the cement producer and CICAM the textile producer. These five plants consume about 60% of total electricity of the nation at about 6.4 CFAF per kilowatt-hour. Taken alone, ALUCAM pays the lowest rate, approximately 5.4 CFAF per kilowatt-hour (less than US cent 1), compared to households that pay 50 CFAF francs for the lower trench, 58.15 CFAF for the middle trench and 60 CFAF for the upper trench net of consumer taxes.

Table below gives the price level of electricity in selected countries. It only considers industrial consumption (high voltage). According to this table, electricity pricing is relatively encouraging domestic firms' competitiveness.

Table 3: High Voltage Electricity Pricing in Selected Countries

Countries	Tranche	Unit cost per Kwh	Fixed cost per month in FCFA	Tax per Kw/h in FCFA	Comments
Cameroun	from 0 to 3900h 3901h - 5400h 5401h - 6600h + 6600h	4F 7F 4F Nothing	668 - 7084 668 - 7084 668 - 7084 668 - 7084	13.5 – 25.88 13.5 – 25.88 13.5 – 25.88 13.5 – 25.88	Plus VAT of 19.25%
Senegal	Heure de pointe Hors pointe	46F 33F	5995 5995		18% VAT 18% VAT
Niger		79F	750 – 7500	5	19% VAT
Gabon	General Longer utilisation	59.83 51.45			19% VAT 19%VAT

Sources: computed AES SONEL database and www.izf.net

Water

Getting connected to safe water usually takes long time in Cameroon. The number of subscribers remained constant during 1991-1994 (about 144,000) while populations needed new subscriptions. One consequence is that those who subscribed consider themselves as second suppliers and, the process going on, that leads to high price of water because each second (third or even fourth) supplier needs a financial surplus. While the percentage of population having access to safe water is small, households' water consumption decreased during 1993-1995 by 11.5% from 30,046 to 26,592 thousand m³. Poor maintenance of installations led to a total water-cut in Yaounde from August to September 1999. Consumers had to drive long distance to find water often of poor

quality. The state water supplier –the SNEC- is a candidate for privatization. It actually produces about 93.4 millions m³ and supplies some 200,000 subscribers.

The cost of water varies according to its utilization. For households, this cost is between 271 Francs CFA for consumption less than 10 cubic meters per month and 337 Francs for consumptions greater than 10 cubic meters. This rate is greater than Gabon's rate (between 148 and 320 francs CFA), Niger's rate (between 121 and 353 francs CFA). For industrial utilization, the cost varies between 298 and 354 francs per cubic meter in Cameroon against 320 francs in Niger and 669 to 754 francs in Senegal.

4.2 Cost and access to credit

In Cameroon, there is an important gap between deposit and lending rates. In fact, the deposit rate has been stabilized at around 5% while lending rate that has been around 22% has declined to 18% since the year 2000. Regarding the distribution of credit among the various sectors of the economy, data reveal an unequal distribution of credit in Cameroon. The sectoral distribution of credit shows that the tertiary sector receives 60% of total credit while the sector's contribution to GDP stands at 46%. The secondary sector which contributes 31% to GDP receives 31% of total credits. The primary sector represents 22% of the GDP while it only receives 9% of total credits. The manufacturing sector, the central concern of the analysis represents 15% of GDP and receives 23% of total credits representing 76% of total credits received by the secondary sector. This shows that the manufacturing sector is not neglected in terms of credits repartition in the economy. However, the percentage cannot help discover the limitations in terms of amount of credits allocated. In general, Cameroon's banks are often blamed for not giving credit to the economy while they are on over liquidity.

Credit to private sector as a percentage of GDP can be taken as an indicator in appreciating the financing of the private sector by the banking system. In Cameroon, this rate gradually declined from 26.7% in 1990 to 10% in 2003, representing one of the lowest rates in Sub-Saharan African countries whose average rate stands at 64%. Table below gives a broad view of the financing of Cameroon's economy as compared to some other countries.

Table 4: Domestic Credit to the Private Sector in Selected Countries as % GDP

	1990	2003
Cameroon	26,7	10,3
Cote d'Ivoire	36,5	13,6
Senegal	26,5	20,8
Ghana	4,9	11,8
Kenya	32,8	62,13
Sub sahara Africa	42,4	63,7

Source: WDI, World Bank, 2005

4.3 Taxes and duties

As member of Central Africa Economic and Monetary Community (CEMAC), Cameroon's taxes and duties are regulated under the CEMAC imports and exports taxes and duties regime. In recognition of the limits of the former UDEAC (Union Douaniere et Economique d'Afrique Centrale) tariffs the World Bank and UDEAC Secretariat agreed in 1988 to set up a customs duty reform in the sub-region (MINFI 1995). This agreement followed by two important workshops at Bangui and Libreville in 1990 during which UDEAC member countries had support from the World Bank, International Monetary Fund, European Union and French Co-operation. The main recommendations of the reform were presented in the World Bank report No 9747-AFR of June 30, 1992. The act of reform was published in June 1993 and entered in force in January 1, 1994. The simplification of the tariff structure, the abolition of the complementary tax, and the replacement of the single tax by the generalised preferential tax are the main results obtained by the regional tax reform.

4.3.1 The CEMAC external tariff

The new Common External Tariff (CET) of CEMAC comprises two taxes: a customs duty (CD) and a temporary surcharge tax (TT). The CD is a function of the product category. Four imports categories are distinguished. The set custom duties are 5% for category 1; 10% for category 2; 20% for category 3 and 30% for category 4. Category one regroups essential goods (medicines, books...); Category two is raw materials and capital goods' group. Products appearing in category three are intermediary goods. General consumption goods are represented in category four.

4.3.2 The generalised preferential tax

The generalised preferential tax (GPT) is applied on products manufactured in CEMAC and sold in a member country different from the producer's. The GPT is the main foundation of industrial co-operation in CEMAC intra-regional trade. The GPT rates had been gradually reduced to zero in 1998 and were already zero on local textiles products in its creation. This tax represented 20% of the CET from January 1994 to December 1995. During this period, a non-CEMAC products of category 4 for example sold in CEMAC was taxed 30% (CET). An equivalent CEMAC product sold in another CEMAC member country was taxed 6% (20% of 30 as GPT). GPT rate had been 10% of CET from January 1996 to December 1997. The GPT is nil since 1998 that means duty free for CEMAC products sold in CEMAC. This tax was applied on the sales of all products satisfying the rule of origin that is recognised as CEMAC product. A product is a CEMAC product if it is entirely obtained in a member country or is made in a member country using imported raw materials. (Article 9 of the CET and GPT act). GPT aims at encouraging intra-trade in CEMAC.

The value added tax is paid by final consumers of taxable goods and services imported or locally produced. The standard rate is 18 percent to all taxable goods and services. In Cameroon, this rate has moved from 18.7% since 1999 to 19.25% in 2005. The excise

duty applies to import of luxury goods such as tobacco and can represent 100% of the import value.

Table 5: Comparison of Duty in Selected Countries

Products	Rates			
	Cameroon	Rwanda	Cote d'Ivoire	Niger
Finished goods	30	30	20	20
Semi-finished	20	15	10	10
Raw materials	10	5	5	5
Capital goods	10	0	5	5

Source : IZF (Niger et Cote d'Ivoire), Tarif National des douanes (Cameroun), MINIECOFIN (Rwanda)

Some Cameroonian products are taxed on export. This is the case of timber for which recent statistics show a 10% export duties.

5. The Method of Analysis and Research Procedure

The analysis is presented in two main steps. In the first step, the domestic resource costs of firms are computed in order to know which firms are efficient and in a second step, an analysis of the competitiveness of firms through unit cost at market prices is carried out. The two analyses will help in identifying the sources of growth, that is, sector/commodities that are more likely to contribute to poverty alleviation.

5.1 Domestic resource cost

Domestic resource cost (DRC) analysis requires the utilization of shadow prices of output, input, labor, capital, interest rate and exchange rate. These shadow prices are first presented in order to facilitate the comprehension of the indicator that will follow. The analysis has therefore only been summarized. For more details, the available literature can help on the topic.

5.1.1 Shadow prices

Because of distortions, the market prices we face every day do not correctly reflect the economic cost for a collectivity of resources allocation and the economic value of goods produced. Economic analysis of projects requires the use of shadow prices in place of market prices to better reflect the economic value or the opportunity cost of goods and factors of production. Government interventions such as tariffs, quotas, or prohibitions are important sources of price distortions. A price is distorted when it is not equal to its social opportunity cost. The social opportunity cost for a good is given by the value of its most valuable alternative. In fact, shadow prices can be defined as the increase in welfare resulting from any marginal change in the availability of commodities or factors of production (Lynn Squire: 1975). The methodology that emphasizes total costs as well as total value of output requires the estimation of output shadow price; factors of production shadow price; shadow interest rate and shadow exchange rate. Broadly speaking, the shadow price of a tradable good can be estimated by its international price. The shadow price of production factors requires additional knowledge while the exchange rate

shadow price can be estimated using the equilibrium real effective rate of exchange. The shadow interest rate represents the opportunity cost of invested capital.

International price of output

The international price of a good differs from an importable good to an exportable good. In the case of an importable good, the international price can be estimated by the CIF price of an imported substitute. In the case of an exported good, the international price can be estimated by the FOB price of an exported substitute. However, CIF and FOB prices are often unknown.

When CIF and FOB prices are unknown, the international price of a commodity can be estimated based on the single price law according to which both imported and domestic goods equivalent substitutes should be sold at the same price. In fact, an imported good at CIF price P_w (unknown) supports taxes, say t_m and should be sold at price $P_w(1+t_m)$. The domestic product evaluated at price P_d supports taxes, say t_d and is sold at $P_d(1+t_d)$. If one supposes that indirect taxes are equal for each product, it becomes therefore possible to write $P_w(1+t_m) = P_d(1+t_d)$. Knowing t_m , t_d and P_d , one can get the value of P_w , which is stated as:

$$P_w = \frac{P_d(1+t_d)}{(1+t_m)} \quad (1)$$

At this level, one just needs official tariffs to estimate international prices of output. Note that equation (1) supposes that official tariffs are the only sources of price distortions. This is not in conformity with the reality as quantitative restrictions, prices control and smuggling are important sources of prices distortions. While using equation 1, the main assumption is that quantitative restrictions, prices control and smuggling are relatively less important.

In the case of a non-tradable good, one needs to decompose the non-tradable good into its main components: indirect tradable inputs and value added. The international price of the value of indirect tradable inputs can be estimated as in equation (1). The value added treatment differs from the Balassa to the Corden methods.

For Balassa, the value added remains unchanged in a free-trade situation so that no adjustment is necessary. In this case, the international price can be obtained as follows:

$$P_w = \frac{a.P_d}{(1+t_n)} + (1-a)P_d \quad (2)$$

where “a” stands for the proportion of tradable inputs in non-tradable and t_n the average nominal protection of tradable inputs contained in non-tradable inputs.

According to Corden, the international price of a non-tradable good can be estimated using the following equation.

$$P_w = \frac{a.P_d}{(1 + t_n)} \quad (3)$$

as the author considers that it is not possible to know the indirect value added in a free-trade situation.

A rapid procedure consists in estimating the nominal rate of protection of the product. The nominal rate of protection (NRP) shows the variation in the domestic nominal prices of a tradable final-good brought on by protection measures. NRP can be measured as follows.

$$NRP_j = \frac{P_{wj}}{P_{dj}} - 1 \quad (4)$$

where P_{wj} = international price index of j ; P_{dj} = domestic price index of j .

CIF price of j in the case of imported good or FOB price of j in the case of an exported good can be used to estimate P_{wj} . The main problem lays on the availability of CIF and FOB prices. In the absence of these prices, one can use official tariffs to estimate NPR. In fact an imported good at the price of P_{wj} (unknown) is taxed at t_m and must be sold at $P_{wj}(1+t_m)$. The home-made product costing P_{dj} is taxed at t_d and must be sold at $P_{dj}(1+t_d)$. The principle of single price for a product states that each unit of product j (imported or not) must be sold at the same price if the quality does not change. We can then write $P_{wj}(1+t_m) = P_{dj}(1+t_d)$. The nominal rate of protection can then be obtained as follows.

$$NRP_j = \frac{1+t_m}{1+t_d} - 1 \quad (5)$$

With equation (5), one can estimate NRP without facing the problem of unavailability of data, as official tariffs are often available. Equation (5) however implies that both domestic and imported goods support the same level of indirect taxes. The nominal rate of protection of inputs has negative effect on producer while the nominal rate of protection of output has a positive effect. In the present analysis, international prices of output and tradable inputs are estimated using CIF and FOB prices from the Department of Customs and taxes data base. Apart from electricity for which data could be obtained, the other non-tradable inputs are assumed without distortions because of the absence of explicit details concerning these types of input.

Shadow wage rate

In the simplest case, the shadow wage rate measures the opportunity cost of labor. The opportunity cost of labor in a project can be defined as the marginal output forgone elsewhere because of its use in the project. In case of persistent unemployment in the

long run, the shadow wage rate would be zero. However, the shadow wage rate is not simple to estimate. For example, if the creation of an additional job in the urban sector induces more than one worker to migrate to the town, the forgone output may be a multiple of one worker's production in the rural sector. In reality, there is no single shadow wage rate in an economy but many shadow wage rates because of differences in skills and locations. In the present study, in the absence of detailed data on salaries and productivity of different categories of workers (skilled, and unskilled), it is simply assumed that those wages are without distortion in Cameroon even if one may logically think that market wage rate might be lower than shadow wage rate because of the abundance of labor.

Capital stock shadow price

Most assets are non-tradable. The value of capital stock at international prices (K^s) can be estimated using the average rate of protection of tradable inputs used in their production (t_k). Using this method, it is necessary to estimate the share of tradable inputs in assets (c). This share can be computed using input-output table. If K represents the value of capital stock at market prices, the value of capital stock at international prices can be estimated as follows:

$$K^s = \frac{c.K}{1+t_k} + (1-c).K \quad (6)$$

Input-output tables are often not regularly updated in developing countries. In such case, the value of capital stock expressed at shadow prices can simply be estimated by:

$$K^s = \frac{K}{1+t_k} \quad (7)$$

where t_k estimates the average nominal rate of protection on capital goods

Shadow interest rate

Shadow rate of interest represents the opportunity cost of invested capital. If one supposes perfect competition, the shadow rate of interest would correspond to firms' borrowing rate at international markets. IMF International Financial Statistics give such rates. These rates were estimated at about 5 percent during the period of our study.

Shadow exchange rate

Exchange rate is the fundamental link between domestic and foreign prices. Its overvaluation or under-valuation constitutes an important source of price distortions and hence can affect firms' competitiveness in one way or another. Shadow exchange rate can be estimated using the real effective rate of change. Whereas the nominal exchange rate is a monetary concept that measures the relative price of two currencies, the real exchange rate (RER) can be defined as the relative price of tradable with respect to non-

tradable goods. Shadow exchange rate is estimated by the Equilibrium real exchange rate (ERER). Devarajan et al. (1993) demonstrated that the RER is a function of inflation rate and terms of trade variations. If inflation increases more rapidly in a country, the currency depreciates. A term of trade deterioration leads to the same result.

Empirically, two methods can be used to estimate the rate of misalignment of the exchange rate. The simplest measure uses the premium of the nominal black market exchange rate (B) over official rate (E) as a proxy for real exchange rate misalignment (Collier and Gunning 1999). For country *i*, in period *t*, the measure is given by:

$$SER_{it} = \left(\frac{B_{it}}{E_{it}} - 1 \right) \times 100 \quad (8)$$

The main advantage of the black market premium lies in its simplicity and its availability for a large number of developing countries. It has also been demonstrated that the black market premium tends to be strongly correlated with other more sophisticated measures (see Ghura and Greenes 1993).

Model-based estimates of exchange rate misalignment are usually based on Edwards (1995). According to him, RER is only affected by real variables. Following this approach, Thiele (2002) estimated exchange rate misalignment in 35 Sub Saharan African countries between 1975 and 1998. Results indicated a misalignment of 42.2 percent in the case of Cameroon during 1990-1998; 40.1 and 35.8 percent during the 1985-89 and 1975-84 respectively. Exchange rate misalignment in Cameroon is more a structural than a policies issue. As an example, the country's exports-imports gap is always negative and is widening over time. As far as we are concerned in this study, an exchange rate misalignment of 42 percent is used even if projections according to Thiele this rate would be lower at the earlier 2000. One of the reasons why Thiele's estimations are used is that it was not possible to rapidly get data to compute a model-based estimate of exchange rate misalignment for 2000-2004 period.

5.1.2 The Domestic Resource Cost indicator

The domestic resource cost measures the domestic resources required in an activity to earn or save a unit of foreign exchange. It is measured in terms of real resources of the opportunity cost. The classic definition of domestic resource cost is:

$$DRC = \frac{w^s L + (r^s + d)K^s}{SER.IVA} \quad (9)$$

where w^s = shadow wage rate; L = quantity of labour; r^s = shadow interest rate; d = depreciation rate; K^s = assets good at shadow prices; SER = coefficient of over/under valuation of exchange rate; IVA = value added expressed at international prices. Note that value added is the difference between the value of output and the value of intermediary consumptions. Table 6 recaps the main price distortions used in the study.

When $0 < \text{DRC} < 1$, the value of output expressed in shadow prices is greater than the value of resources utilized to produce it. The country uses its resources relatively more efficiently than the rest of the world. This kind of activity should be developed. If $\text{DRC} > 1$, the activity in question must be discouraged because it costs more than an imported substitute. In this case, the country should import instead of producing the good in question. $\text{DRC} < 0$ refers to overprotecting an inefficient activity and corresponds to negative international value added and positive domestic value added. This should be interpreted as “infinite” domestic resource cost as the activity in question is a burden for the nation. This is the case of developing countries that tended to build their industries by using high tariffs level while manufacturers were very inefficient. A $\text{DRC} < 1$ does not mean that the firm is competitive. It just means that the firm is efficient in resources allocation. An efficient firm can be less competitive or even uncompetitive if price distortions negatively affect its sales in a given market. That is why an indicator of competitiveness is needed to complete the DRC analysis.

5.2 Unit cost at market price: an indicator of competitiveness

The approach is based upon the principle that competitiveness of local firms is defined by a cost advantage over foreign competitors (Siggel and Cockburn (1995). Competitiveness is measured in terms of market prices, the prices which manufacturers really face while comparative advantage is measured in terms of shadow prices that are net of distortions.

Let uc denotes unit cost of a producer at market prices. If the asterisk denotes the reference competitor, a competitiveness criterion can be expressed as follows:

$$uc < uc^* \quad (10)$$

As firms produce goods of different quality than their competitors, physical unit cost (the ratio of total cost to quantity produced) would not be appropriate, so unit costs are expressed in terms of value of production or monetary unit costs.

$$uc = TC/PQ \quad (11)$$

where P is the final-good price, Q the quantity produced and TC total costs.

Under the condition of long-term perfect competition, profits are zero, meaning that international producers will sell at cost ($TC = PQ$). The competitiveness condition of equation (11) becomes:

$$uc < 1 \quad (12)$$

With equation (13) one can easily analyze firms' competitiveness in the absence of data on competitors' activities. Total cost at market prices can be defined as:

$$TC = P_d A + wL + P_n A_n + (r+d)P_k K + T_x \quad (13)$$

Where: P_{dj} = tradable input market price; A = total volume of tradable material inputs; P_n = non tradable input market price; A_n = total volume of non tradable; w = the market wage rate; r = the market interest rate; d = the market average depreciation rate; and T_x = total indirect taxes. An analysis of each component of unit cost can give further details about firms' competitiveness.

6. The Main Findings

6.1 Data and Summary statistics

Data are from statistical and fiscal declarations of the Division of the Largest Enterprises. The utilization of these data can be justified by the fact that firms concerned represent about 75 per cent of Cameroon's manufacturing GDP. Selected firms are regrouped by main products. Data are for a period of four consecutive years, from 2000 to 2004. Four years have been retained in order to avoid presenting an analysis based on a single year or a couple of years. It was thought that four years can help to have the basic competitiveness trend of the manufacturing sector. Table below is a summary of the sample.

As one may observe, Cameroon's firms import more than they export. It is therefore expected that final good competitiveness at international markets is weak. In fact, a negative value of net exports means that the value of intermediary goods is higher than the value of final good exports. A competitive firm should enhance a positive value of net exports, meaning that the value of imports of intermediary goods should be lower than the value of exports of final good products. In our sample, only six sub sectors out of nineteen experience a positive value of net exports.

Table 6: Some Characteristics of the Sample in 2002

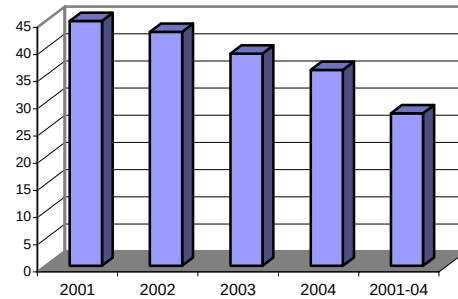
	Number of firms	Net Exports*	Number of employees	Local Capital (%)
Flour	3	-18759354	234	97
Other food products	7	25142890	2968	41
Vegetable oil	2	71331113	3160	85
Beer and soft drinks	7	-60778329	2245	59
Livestock feed	1	-5081887	22	35
Cigarettes	1	-4289957	158	1
Wood industry	16	50267945	4810	27
Textiles	2	-982243	1420	21
Chemical products	11	-274935	44	35
Petroleum products	3	-129000000	745	0
Rubber	2	-700871	160	46
Plastic products	4	-2882874	714	62
Paper products	5	-10843332	555	65
Building materials	2	-6195093	934	72
Aluminum	3	24190046	677	71
Metal products	2	-474122	38	50
Glassware	1	5538013	226	78
Electric material	1	5694067	300	42
Household appliances	1	-884931	298	0

* Exportations - Imports

6.1 Competitiveness analysis by sub sector

Results reveal that the manufacturing sector of Cameroon is less competitive. In 2001, 45% of firms are competitive in their activity. This percentage gradually dropped to 42% in 2002, 39% in 2003 and 36% in 2004. Only 28% of firms were competitive during the entire period 2001-2004. These firms are found principally in the following sub-sectors : chemical products (7%) ; food products, beers and soft drinks (4% each) ; wood industry, aluminum and aluminum products, petroleum products (3% each) ; building materials, metal products, electric products and household appliances (1% each).

Chart 4 : Percentage of Competitive Firms 2001 - 2004



The structure of production costs is as follows: tradable inputs (50% of total costs on average), non tradable inputs (21%), capital (13%), labor (12%), and direct taxes (4%).

Concerning particularly non tradable inputs, transport accounts for 25% of total non tradable cost while electricity cost is estimated at 9%. Water cost is relatively less important in all firms. Financial cost and other costs represents the most important component of non tradable cost.

Globally, Cameroon's firms are less competitive. Tradable goods are the main component of their production costs. For an important number of sub sectors, this cost is greater than 60 percent of the value of production. Capital cost is also important

Chart 5: Structure of Production Cost (in %)

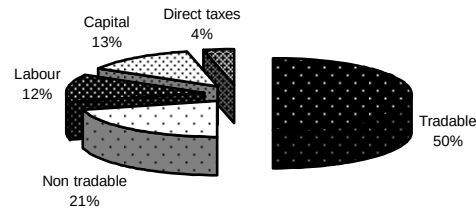


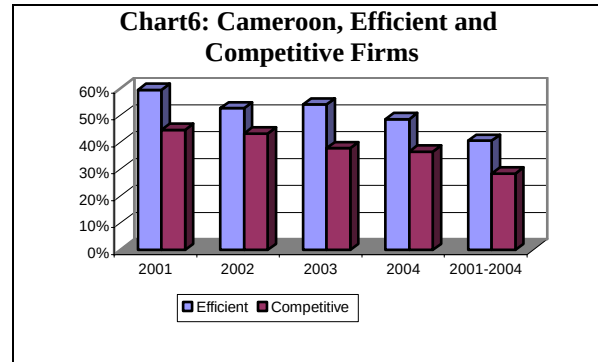
Table 7: Competitiveness of Cameroonian Firms, 2000-2004

Sub sector	Number of firms	Number of competitive firms				
		2001	2002	2003	2004	2001-2004
Flour	3	0	2	1	1	0
Other food products	7	5	5	3	5	3
Vegetable oil	2	0	0	0	0	0
Beer and soft drinks	7	5	4	4	2	3
Livestock feed	1	0	0	1	0	0
Cigarettes	1	0	1	0	0	0
Wood industry	16	6	3	4	5	2
Textiles	2	0	0	0	0	0
Chemical products	11	5	6	6	5	5
Petroleum products	3	2	2	2	2	2
Robber	2	1	0	0	0	0
Plastic products	4	0	1	1	0	0
Paper products	5	3	1	0	0	0
Building materials	2	1	1	1	1	1
Aluminum	3	2	2	2	2	2
Metal products	2	1	2	2	2	1
Glassware	1	0	0	0	0	0
Electric material	1	1	1	1	1	1
Household appliances	1	1	1	1	1	1
Total	74	33	32	29	27	21

6.2 Comparative advantage analysis

The study reveals that 59% of firms were efficient in 2001, 53% in 2002, 54% in 2003 and about 49% in 2004. Between 2001 and 2004, 40,5% of firms are efficient in their activities. It therefore appears that Cameroon's manufacturers are less competitive than they are efficient.

This can be explained by the existence of prices distortions among which: nominal protection of output, nominal protection of inputs, interest rate distortions, and exchange rate distortions. These distortions lead to an increase in total cost at market prices which means less competitiveness.



The activity of some firms is not economically viable because their value added at international prices is negative. These firms are found in the following sub sectors: flour (three firms), beers and soft drinks (two firms), textile (one firm), paper products (three firms). The performance of these firms reduces the average performance of their respective sub sectors.

Table 8: Cameroon, Domestic Resource Cost by Sub sector 2000-2004

Sub sectors	Number of firms	Number of efficient firms					Sub sector Efficiency
		2001	2002	2003	2004	2001-2004	DRC 2001-2004
Flour	3	0	0	0	0	0	VAI < 0
Other food products	7	6	5	4	5	4	0.68
Vegetable oil	2	1	1	1	1	1	0.65
Beer and soft drinks	7	3	4	4	3	3	1.25
Livestock feed	1	0	0	1	0	0	VAI < 0
Cigarettes	1	1	1	1	0	0	1.4
Wood industry	16	13	11	12	11	9	0.98
Textiles	2	0	0	0	0	0	2.42
Chemical products	11	6	6	5	5	4	1.09
Petroleum products	3	2	1	2	1	1	VAI < 0
Rubber	2	2	1	0	0	0	0.97
Plastic products	4	1	1	1	1	1	1.23
Paper products	5	1	0	0	0	0	VAI < 0
Building materials	2	1	1	1	1	1	1.48
Aluminum	3	3	2	3	3	2	0.37
Metal products	2	2	2	2	2	2	0.7
Glassware	1	0	1	1	1	0	0.99
Electric material	1	1	1	1	1	1	0.99
Household appliances	1	1	1	1	1	1	0.99
Total	74	44	39	40	36	30	9

From firms' DRC, DRC were computed by sub-sectors, obtaining a weighted average of DRC of firms belonging to each sub-sector. The major problem was the estimation of DRC for firms facing negative free trade value added. Empirically, DRCs ranged between 0 and 58 in the case of our sample. At the same time, it was not possible to compute DRC for many firms with negative free trade value added. As negative free trade value added is equivalent to "infinite" (in the sense of higher) DRC, I supposed that DRC for firms with negative DRC was equal to 99. Firms' output was used to obtain the weight. Table 8 outlines that 9 sub-sectors out of 19 have comparative advantage in their activity. Of the ten sub-sectors that do not have comparative advantage, four face negative free trade value added, meaning very poor efficiency.

6.4 An analysis of firms productivity

Productivity is the major determinant of comparative advantage of firms. An analysis of firms' productivity would help better understand the evolution of both firms and sub sectors comparative advantage. A comparison of firms' productivity with their employees' salaries would give us additional details. Labor productivity is estimated by the ratio of value added to the total number of worked hours. Capital productivity is estimated by the ratio of value added to the capital stock value.

In fact, the average capital productivity is estimated at 0.28 over 2000-2004 meaning that each CFA Franc invested in Cameroon manufacturing sector produces 0.28 CFA Franc as value added. This productivity varies from one firm to another and from one sub sector to another. The lowest capital productivities are observed in livestock feeding (-0.20) and in textile sub sector (0.07). The highest capital productivities are found in the production of electric materials (0.82). The poor capital productivity can be explained by the fact that many firms operate under their full production capacities (about 65 to 70 percent on average). Generally,

Chart 7 : Cameroon, Capital Productivity (in CFA Franc)

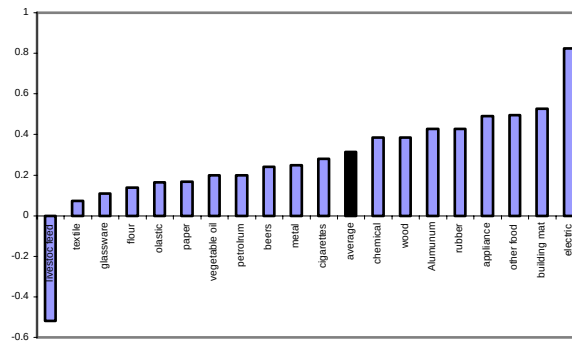
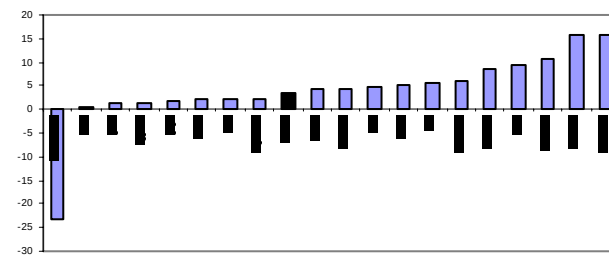


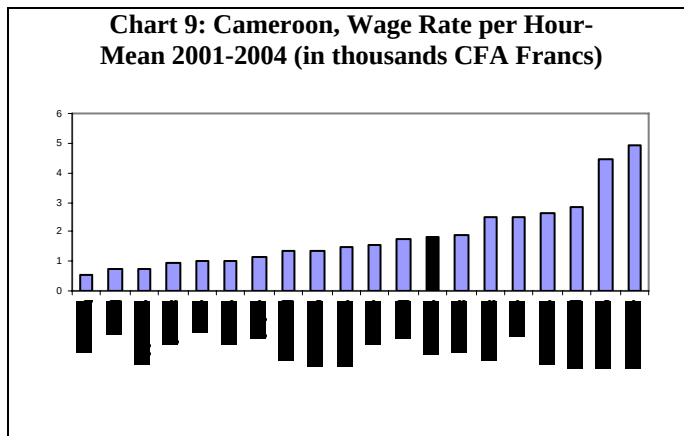
Chart 8 : Cameroon, Labor Productivity - Mean 2001-2004 (in thousands CFA Francs)



capital productivity is high in efficient sub sectors apart from the production of building materials.

The average labor productivity is estimated at 3,350 CFA Francs per hour. As in the case of capital productivity, labor productivity is the lowest in the production of livestock feeding. Building materials, aluminum and aluminum products, cigarettes, beers and soft drinks and glassware are sub sectors in which labor productivity is the highest. Apart from building materials, cigarettes and flour sub sectors with high productivity do have comparative advantage in their activities.

Salaries, as productivity, vary from one firm to another and from one sub sector to another. The lowest salaries are observed in building materials (about 570 CFA Francs per hour), wood industry (714 CFA Francs), plastic industry (974 Francs), and flour (9991 Francs). Cigarettes (4950 CFA Francs per hour) and beers and soft drinks (2842 Francs) are sub sectors that pay the highest average wage rate.



6.5 Potential sources of growth

To better analyze the structure of DRC in Cameroon for policy recommendations, let us rate sub-sectors efficiency according to their DRCs. (i) Values of DRC below 1 indicate an efficient use of resources. At this level, the cost of foreign exchange earned or saved through domestic production is less than the international cost. (ii) Keeping in mind the effect of dynamic links and the fact that sub-sectors, non-competitive in the short term, could become competitive in the medium term with appropriate cross-sector policies, a second group of potentially competitive sub-sectors has been identified. These sub-sectors have a DRC between 1 and 1.5. (iii) Sub-sectors with a DRC value above 1.5 are considered as non-competitive. iv) Negative DRCs indicate a very inefficient use of resources, corresponding to situations where free-trade value added is negative. On the basis of this analysis, the following classification was obtained.

Table 9: Cameroon, Classification of Sub-sectors in Term of Efficiency 2001-2004

	DRC 2001-2004	Comments
Efficient activities		
Other food products	0.68	Very competitive and efficient sector
Vegetable oil	0.65	
Wood industry	0.98	
Rubber	0.97	
Aluminum	0.37	
Metal products	0.70	
Glassware	0.99	
Electric material	0.99	
Household appliances	0.99	
Marginally efficient sub sectors		
Cigarettes	1.4	Could become competitive in the medium term with appropriate cross-sector policies
Chemical products	1.09	
Beer and soft drinks	1.25	
Building materials	1.48	
Plastic products	1.24	
Costly sub sectors		
Textile	2.42	An inefficient activity
Very inefficient sub sectors		
Flour	IVA < 0	Very inefficient use of resources to be discouraged
Livestock feed	IVA < 0	
Petroleum products	IVA < 0	
Paper products	IVA < 0	

IVA<0 is equivalent to very high DRC

7. Conclusion and Recommendations

The main objective of the study was to identify the sources of growth and competitiveness in Cameroon. The analysis that was centered on the estimation of DRCs and unit costs at market price reveals the following.

Globally, the manufacturing sector of Cameroon is not competitive. This can be observed by the low level if not the absence of exports from this sector. Firms are not competitive because of capital and intermediary consumptions costs. These costs represent the main components of firms' costs and are sometimes higher than the value of output. The quality of public service utilities such as electricity, water, and telecommunication is also the main sources of companies' poor performance. Capital productivity is very low as many firms operate under full capacities. Labor productivity is also low. However, some sub-sectors need to be encouraged by more incentives from government as their activities are economically viable. These activities can help Cameroon increase its gain from international trade and ameliorate its chances to survive in the context of the New Partnership Agreements between ACP and EU countries by the 2008 horizon. These sectors are therefore considered as growth-laid sectors. Namely they are: i) Other food products; ii) Vegetable oil; iii) Wood industry; iv) Rubber; Aluminum products; v) Metal products; vi) Glassware; vii) Electric material; ix) household appliances.

Some other sectors are potentially competitive and efficient. These sectors would boost their performance with the support of the Government in one way or another. Those concerned are: i) Cigarettes; ii) Chemical products; iii) Beers and soft drinks; iv) Building materials; v) Plastic products.

To support the manufacturing sector, the following recommendations can be made for both government and producers.

i) Regarding tradable inputs, it would be interesting to support potentially competitive firms by allowing them some facilitation at import level. Tariff reduction can be used as incentives for firms achieving a certain level of efficiency.

ii) Concerning non tradable inputs, government may act as facilitator of some other services. For example, by ameliorating the environment of roads transports, firms would benefit as this would lead to low production cost. Apart from that, it would be interesting to increase both quality and quantity of basic infrastructure services such as roads, telecommunication, water and electricity.

iii) Concerning factors market, government can help the private sector in recycling its employees during joined organized seminars and workshops. That would help firms that cannot afford recycling their employees for better productivity. Incentives can also be given for capital acquisition: low interest rate, low taxes on import of capital, flexible amortization...

iv) Firms should at their level adopt any policy aiming at avoiding poor management of resources : capital, labour or inputs. Corruption inside firms leads to high costs of production and should be tackled down efficiently at any level.

v) Some products like textile face incomparable competition from Asia (and mostly China). Government may act like Europe and the United States by signing some treaties with these countries so that their imports can be limited in order to avoid the closure of local producers.

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