A FIRM'S-EYE VIEW OF COMMERCIAL POLICY AND FISCAL REFORMS IN CAMEROON

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Summary

After decades of high trade restrictions, fiscal distortions and currency overvaluation, Cameroon implemented important commercial and fiscal policy reforms. Almost simultaneously, a major CFA devaluation cut the international price of Cameroon's currency in half. This paper examines the effects of these reforms on the incentive structure faced by manufacturing firms. Did they create a coherent new set of signals? Was the net effect to stimulate the production of tradable goods? Was dispersion in tax burdens lessened? We address each of these questions using a cost function decomposition, applied to detailed firm-level panel data. We observe that Cameroon reforms appear to have created clear new signals for manufacturers, as effective protection rate fell by between 80 to 120 percentage points. In contrast to trade liberalization, neither the tax reforms nor the CFA devaluation had a major systematic effect on profit margins. Nonetheless, the CFA devaluation *did* twist relative prices dramatically in favor of exportable goods, and firms that directed their output toward foreign markets exhibited relatively rapid output growth.

1.   Overview

Upon gaining independence in 1960, Cameroon adopted an interventionist approach to industrialization and development. Its commercial policies kept import prices high, while its tax code selectively promoted certain firms and penalized others. These policies continued into the late 1980s and early 1990s, when the distortions they created were compounded by significant currency overvaluation in the CFA (Communauté Financière Africaine) zone, of which Cameroon is a member. Finally, in the face of crisis, the CFA countries agreed to devalue in 1994. Almost simultaneously, Cameroon implemented significant commercial policy reforms and attempted to level the playing field by reducing tax system inequalities.

This paper examines the effects of these reforms on the incentive structure faced by manufacturing firms. Did they create a coherent new set of signals? Was their net effect to stimulate the production of tradable goods? Was dispersion in tax burdens lessened? We address each of these questions using annual survey data collected by the Regional Program on Enterprise Development (RPED), along with product-specific prices and quantities subsequently collected from a subset of the RPED sample. [1]

The strength of our analysis lies in the information at our disposal. For each type of tax and tariff, the firms in our sample reported the amounts they paid before and after the reforms. Further, because we re-visited the sample firms to collect price and quantity information on their major inputs and outputs, we are able to impute the effects of tariffs on input prices from official tariff schedules for firms that did not directly import the intermediate goods they used. We are also able

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[1]   Further details on the RPED surveys in Cameroon may be found in Gauthier (1995). Information on the follow-up surveys is provided in Tybout et al (1997).

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to gauge the relative importance of each input and output to each producer. In sum, the data provide a far more detailed basis for inference than is typically available. [2]

To organize our analysis, we use a cost function decomposition. Fiscal and commercial policy reforms are treated as influencing the effective prices of inputs and outputs faced by firms; their net effects are then calculated in terms of the changes they induced in costs per unit revenue, firm by firm. Assuming that international trade determines the border prices of all inputs and outputs, our calculations capture all the effects of Cameroon's fiscal and commercial policy reforms on the incentive structure and firms' gross profit margins.[3]

By using a cost function approach rather than input-output tables, we allow for the possibility that firms are able to substitute away from inputs that become relatively expensive, and toward inputs that become relatively cheap. Similarly, intra-firm substitutions among final products are recognized. Our effective protection figures therefore give a better measure of the true burden on producers than the traditional calculations (see footnote 2).

The paper is organized as follows. Section 2 describes the fiscal and commercial policy regimes before and after the reform of 1994. Section 3 attempts to quantify the effects of the commercial and policy reforms on the firms' unit costs from a firm-level perspective. Section 4 introduces the data used in this paper, which are based on surveys spanning the 1992/95 period.

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[2]   Standard effective protection measures are based on input-output matrices at the 2-digit or 3-digit level, in combination with tariff schedules or international price comparisons (e.g., Balassa, 1965). Many examples of this type of calculation and further references can be found in the seven volumes of country studies produced for the World Bank's "Liberalizing Foreign Trade" project. Michaely, *et al* (1991) summarize the main findings.

[3]   If this assumption is too strong, our calculations isolate only the *direct* effects of policy reforms on after-tax, after-tariff prices of inputs and outputs. The general equilibrium effects of the reforms on pre-tax, pre-tariff prices are not ignored; they are lumped in with all other residual factors, such as the exchange rate, that affect relative prices.

Section 5 presents our findings on the sources of change in unit costs, and their relation to policy. Section 6 summarizes and concludes**.**

2.   **Tax and Commercial Policy Reforms**

Until 1994, the Cameroonian government relied heavily on selective tax and tariff exemptions to promote industrial development. This strategy began in 1960 when the country enacted an Investment Code to attract foreign capital and encourage import-substituting industrialization. It was also shaped by the 1964 Treaty of Brazzaville, which dictated a number of taxes and duties to be implemented in all UDEAC countries.[4] Subsequent to these events, the Cameroonian government layered on additional special tax schemes and exemptions. The cumulative effect was to create one of the most complex and unfair systems of taxes and duties in Sub-Saharan Africa.

Under this pre-reform regime, firms that did *not* enjoy access to any of the special programs—UDEAC-wide or Cameroonian—were subject to a variety of direct and sales taxes. Those that imported intermediate goods were subject to four tariffs unless they had special status. (Unlike most countries, Cameroon incorporated the equivalent of its domestic sales taxes into these tariffs.) The overall tariff structure was highly diversified, with rates ranging from 0 percent to 500 percent (World Bank, 1995, Appendix 6). The regime not only encouraged evasion, it provided considerable incentives for firms to seek special treatment from the tax authorities. Such treatment was available to manufacturers through a variety of mechanisms on a case-by-case basis.

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[4]   UDEAC, the Union Douanière et Économique de l'Afrique Centrale, is composed of Cameroon, the Central African Republic, Chad, Congo, Equatorial Guinea and Gabon . It was formed in 1964 by the Treaty of Brazzaville.

Appendix 1 provides details on the direct and indirect taxes, tariffs, and special programs that prevailed in the pre-reform period.

In January 1994, the government began to dismantle this system. In several decrees, it attempted to correct anti-trade biases by increasing the importance of domestic taxes and reducing tariffs. It also attempted to reduce inequalities, distortions, corruption among administrators, and incentives for evasion.[5] These reforms were motivated by several objectives: (1) to comply with conditionality in a World Bank Structural Adjustment Program; (2) to further the UDEAC objective of promoting regional economic integration; and (3) to shore up tax revenues, which had been eroding as oil exports fell and tax exemptions and evasion became increasingly prevalent.[6]

The new policy regime included several components that affected external trade:

a) *The four-types of tariffs were replaced by a unified single system known as the TEC (Tarif extérieur commun), applicable to imports from non-UDEAC countries.*

b) *Imports were classified into four categories, with tariff rates ranging from 5 percent to 30 percent*, compared with rates ranging from 0 percent to 500 percent under the previous system.

c) *A general preferential tariff was introduced for trade between UDEAC countries*, with an initial rate fixed at 20 percent of the applicable TEC.[7]

Further, the reform package essentially replaced the various sales taxes with a value-added tax and eliminated most special privileges. (Appendix 1 provides details.)

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[5] In 1994, more than 50 percent of the 200 firms interviewed in the RPED sample said they had not paid their full tax obligations in the previous fiscal year.

[6] Tax revenues in 1992 amounted to only 12.3 percent of GDP, compared to a median of 18.5 percent for other Sub-Saharan African countries (World Bank, 1994, table A.2.)

[7] This rate was to be reduced to 10 percent on January 1 1996 and 0 percent on January 1 1998.

Table 1: Coverage of Special Regimes

	1992-93	*1993-94*	*1994-95*
*Percentage of firms enjoying at least one special tax regime**	64.8% (83)	60.9% (78)	14.1% (18)
Privileged firms' sales as a percentage of total sales	98.5%	94.4%	29.5%
Privileged firms' imports as a percentage of total imports	99.1%	98.2%	74.0%
Privileged firms' taxes as a Percentage of total taxes	98.3%	97.4%	22.8%

*The number of firms in each category is given in parentheses. The total number of firms = 128

Table 1 documents the coverage of special fiscal regimes within the RPED sample before and after the reforms. Note that the proportion of manufacturing enterprises enjoying fiscal privileges dropped from 64.8 percent to 14 percent over the two year period, and the phase-out of privileges was equally dramatic when measured in terms of sales or share of the total tax burden. However, most of the major importing firms continued to enjoy special privileges after the reforms. Special regimes applied to 99 percent of the total value of sample imports in 1992-93, and still applied to 74 percent in 1994-95. This pattern reflects the fact that major importers in Cameroon are large, and large firms continued receiving privileges in 1994-1995.

If the reforms had bite, many firms that enjoyed special status in 1992-93 should have borne a larger tax burden in 1994-95. To quantify this effect, Table 2 presents the tax rates firms reported facing in each fiscal year. The firms are grouped as follows: those in special programs (who lost most of their benefits), those with free trade zone status or ad hoc agreements (some of whom retained their benefits), and firms operating under the common law regime in 1992-93.

**Table 2: Average Indirect Tax Rates for Different Categories of
Firms based on their 1992-93 Status***

	1992-93	*1993-94*	*1994-95*
Sales or Value-added Taxes			
Privileged firms			
• *Special incentive programs (UDEAC and Cameroon)*	8.4%	8.3%	14.9% (7.0%)
• *Free trade zone or ad hoc agreements*	10.9%	8.7%	16.5% (5.9%)
No privileges	10.3%	10.7%	16.0% (9.5%)
Customs			
Privileged firms			
• *Special incentive programs (UDEAC and Cameroon)*	15.8%	17.8%	19.8%
• *Free trade zone or ad hoc agreements*	18.5%	..	30.0%
No privileges	66.8%	52.4%	20.2%

*   The total number of firms is 128. Figures are cross-firm averages of 1994/95 sales taxes (TCA). Figures in parentheses are averages of 1994/95 sales taxes (TCA) weighted by the ratio of value-added to total sales.

Firms with special incentive programs in 1992-93 reported that they faced an average sales tax rate of 8.4 percent in that year, while in 1994/95 they were confronted with an average quasi-value-added tax of 14.9 percent. Similar patterns emerge for the free trade zone/ad hoc agreement group and the unprivileged group, although their rates are generally not as favorable as those of the special program firms. Therefore, the special program group continually enjoyed a discount of several percentage points, and there was no obvious tendency for this group to converge toward the others. Further, compared to the 1992-93 turnover taxes as a percentage of sales, the 1994-95 value-added taxes as a percentage of total sales were generally lower. (Refer to the 1994-95

figures in parentheses.) Thus, although it is possible that the tax burden was spread more evenly among the privileged firms after the reforms, it did not increase for them on average.

With respect to customs, the rates faced by the firms that originally enjoyed special programs increased from 15.8 percent in 1992-93 to 19.8 percent in 1994-95 as privileges were phased out. The free trade zone firms and firms with ad hoc arrangements faced an even greater increase, with rates jumping from 18.5 percent to an average of 30 percent. This reflects the fact that more than half of the sample firms under these regimes lost their privileges after 1992-93. Finally, for firms operating under the normal regime in 1992-93, the impact of the reform was major. Their customs rates fell from 66.8 percent in 1992-93 to an average of 20.2 percent in 1994-95. Thus there is some evidence that the tariff reforms tended to level the playing field.

3.   Quantifying the Effects of Commercial Policy and Fiscal Reforms

Tables 1 and 2 demonstrate that the reforms did indeed change the level and distribution of the tax burden. However, they do not document the combined effects of these reforms on after-tax costs per unit revenue for individual firms. This is our next objective. As in Tybout et al (1997), we begin with a cost function:

(1) $C = f(Q, \tilde{P}_L, \tilde{P}_I, \tilde{P}_K, A)$.

Here C is the minimum attainable cost at output level Q, productivity level A, and the vector of effective (after tax, after tariff) prices for intermediate goods, $\tilde{P}_I$ labor, $\tilde{P}_L$, and capital, $\tilde{P}_K$. By Shephard's lemma, we have:

(2) $d \ln C = \left(\frac{1}{\eta}\right) d \ln Q + s_I (d \ln \tilde{P}_I) + s_L (d \ln \tilde{P}_L) + s_K (d \ln \tilde{P}_K) + \left(\frac{\partial \ln C}{\partial \ln A}\right) d \ln A$,

where s_j denotes the share in total cost of the jth factor $\left(\sum_{j=1}^{J} s_j = 1\right)$ and η is the elasticity of output with respect to cost, or returns to scale. Normalizing by the value of output, we obtain a decomposition of the sources of growth in cost per unit revenue:

$$
\begin{aligned}
d \ln C - d \ln\!\left(Q\tilde{P}_Q\right) = \left(\tfrac{1}{\eta}-1\right)d \ln Q &+ s_I (d \ln \tilde{P}_I - d \ln \tilde{P}_Q) + s_L (d \ln \tilde{P}_L - d \ln \tilde{P}_Q) \\
(3) \quad + s_K (d \ln \tilde{P}_K - d \ln \tilde{P}_Q) &+ \left(\frac{\partial \ln C}{\partial \ln A}\right) d \ln A
\end{aligned}
$$

(Note that unlike effective input prices, the effective output price, $\tilde{P}_Q$, is the pre-tax price to the buyer.) A second-order Tornqvist approximation to this expression in discrete time is given by:

$$
\begin{aligned}
\Delta \ln C - \Delta \ln\!\left(Q\tilde{P}_Q\right) = \left(\tfrac{1}{\eta}-1\right)\Delta \ln Q &+ \overline{s_I} (\Delta \ln \tilde{P}_I - \Delta \ln \tilde{P}_Q) + \overline{s_L} (\Delta \ln \tilde{P}_L - \Delta \ln \tilde{P}_Q) \\
(4) \quad + \overline{s_K} (\Delta \ln \tilde{P}_K - \Delta \ln \tilde{P}_Q) &+ \left(\frac{\partial \ln C}{\partial \ln A}\right) d \ln A
\end{aligned}
$$

where Δ is the difference operator for period t *versus* t-1 and overbars denote cross-period averages of the associated variable.

Commercial policy affects costs per unit revenue by changing the after-tariff prices of inputs and outputs. Domestic tax policy similarly affects input and output prices net of taxes, and may further change after-tax costs through lump sum taxes such as the *patente* (see Appendix 1). The balance of this paper is devoted to quantifying these channels of transmission from policy reforms to the incentive structure at the firm level.

It is possible that commercial and domestic tax policy affect the efficiency parameter, *A*. Similarly, if there are scale economies, they may affect unit costs by changing the volume of

output.[8] However these channels of transmission are empirically intractable, and we will not attempt to measure them separately.

   Linking prices to policy. Let us suppose for the moment that every good used or produced by Cameroon firms is also available in foreign markets, and that arbitrage between domestic and foreign goods is perfect. It is then straightforward to calculate the effects of the fiscal and commercial policy on the after-tax, after-tariff prices faced by producers.

   Specifically, under the pre-reform regime, directly imported inputs were subject to tariffs but not to sales taxes (t), while domestically produced inputs were subject to sales taxes but not to tariffs. With perfect arbitrage, Cameroon firms paid $\tilde{P}_{Ii} = P_{Ii}(1+t) = P_{Ii}^*(1+\tau_{Ii})$ for the ith input, where P_{Ii}^* is the external price of this input, P_{Ii} is the pre-tax price of the domestically produced version of input i, τ_{Ii} is the tariff rate, and t is the sales tax rate. Analogously, after taxes, a Cameroon producer of the jth output received $\tilde{P}_{Qj} = P_{Qj} = P_{Qj}^*(1+\tau_{Qj})/(1+t)$ per unit produced.

   When Cameroon moved to a value-added tax, domestic and foreign purchases of the ith input were effectively tax-free (albeit not tariff-free) because the value-added taxes paid on these purchases were rebated. But perfect arbitrage implies that the price of domestic inputs still matched the tariff-distorted world price: $\tilde{P}_{Ii} = P_{Ii}^*(1+\tau_{Ii})$. Hence, under the perfect arbitrage assumption, Cameroon's fiscal and commercial policy reforms influenced input prices only by affecting tariff rates. On the other hand, in the product markets, the new regime meant that Cameroon firms collected the tariff-distorted world price adjusted upward by the value-added tax

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rate (v), $P_{Qj}(1+t) = P_{Qj}^*(1+\tau_{Qj})(1+v)$, and they kept $\tilde{P}_{Qj} = P_{Qj}^*(1+\tau_{Qj})$. So under the perfect

arbitrage assumption, moving to a value-added system increased the after-tax price of outputs

relative to inputs by eliminating the cascading effect of sales taxes.

Of course, perfect arbitrage is not a realistic assumption for most products. Transaction

costs and product differentiation will typically allow domestic and foreign varieties of the same

good to exhibit different prices, and the response of these prices to changes in commercial policy

and the fiscal regime will doubtless depend on firm-specific perceptions of demand elasticities, if

not strategic considerations. To deal properly with these problems, an extremely detailed

computable general equilibrium (CGE) model would be needed. No such models exist for

Cameroon, nor is it feasible to construct one.

Because the general equilibrium and mark-up effects are too complex to disentangle, we

isolate the discrepancy between domestic and foreign prices in the endogenous scaling variables,

λ_{Ii} and λ_{Qj}, which apply to the ith input and the jth output, respectively. Accordingly, the effective

price of the ith domestic input is $\tilde{P}_{Ii} = P_{Ii}^* \lambda_{Ii}(1+\tau_{Ii})$ and the price of the jth domestically produced

output is either $\tilde{P}_{Qj} = \lambda_{Qj} P_{Qj}^*(1+\tau_{Qj})/(1+t)$ or $\tilde{P}_{Qj} = \lambda_{Qj} P_{Qj}^*(1+\tau_{Qj})$, depending on whether the

old or the new regime is in force. These relationships are summarized in Table 3 below.

Table 3: Effective Producer Prices ($\tilde{P}_I, \tilde{P}_Q$) Under Alternative Regimes

	VAT Regime		Sales Tax Regime	
Outputs($\tilde{P}_Q$)	$\lambda_Q P_Q^*(1+\tau_Q)$		$\lambda_Q P_Q^*(1+\tau_Q)/(1+t)$	
	Domestic:	Imported:	Domestic:	Imported:
Inputs ($\tilde{P}_I$)	$\lambda_I P_I^*(1+\tau_I)$	$P_I^*(1+\tau_I)$	$\lambda_I P_I^*(1+\tau_I)$	$P_I^*(1+\tau_I)$

Note: Input prices with tildas are inclusive of taxes and tariffs; output prices with tildas are exclusive of any taxes collected and passed on to the government. Prices with asterisks are pre-tax border prices, converted to domestic currency.

Before we substitute these producer prices back into equation 4, we must deal with the fact that firms use multiple inputs and produce multiple outputs. To this end, we use Tornqvist indices of the growth rates in effective input and output prices, which amount to share-weighted aggregations of the growth rates in the prices of the individual goods. Specifically, for intermediate inputs, we calculate

$$\Delta \ln \tilde{P}_I = \sum_{i=1}^{N} \bar{s}_i \Delta \ln \tilde{P}_{Ii} = \sum_{i=1}^{N} \bar{s}_i \Delta \ln(P_{Ii}^*) + \sum_{i=1}^{N} \bar{s}_i \Delta \ln(1+\tau_{Ii}) + \sum_{i=1}^{N} \bar{s}_i \Delta \ln(\lambda_I^i)$$

(5)

$$= \Delta \ln P_I^* + \Delta \ln(1+\tau_I) + \Delta \ln(\lambda_I)$$

where $\bar{s}_i$ is the share of expenditures on the ith input (inclusive of tariffs) in total intermediate input costs, averaged across periods. Given that producers report prices paid inclusive of tariffs, as well as tariffs paid, we observe both $\tilde{P}_{Ii}$'s and τ_{Ii}'s, so the left-hand side and the tariff component of the right-hand side can be isolated. However, we do not have micro data on the external prices of each product, so we cannot disaggregate the sum $\Delta \ln P_I^* + \Delta \ln(\lambda_I)$.

Analogously, for effective output prices we write:

$$\Delta \ln\left(\tilde{P}_Q\right) = \Delta \ln(1 + \tau_Q) + \Delta \ln(P_Q^*) - \Delta \ln(1 + t_Q) + \Delta \ln(\lambda_Q)$$

(6)
$$= \sum_{j=1}^{J} \bar{\alpha}_j \Delta \ln(1 + \tau_{Qj}) + \sum_{j=1}^{J} \bar{\alpha}_{ji} \Delta \ln(P_{Qj}^*) - \sum_{j=1}^{J} \bar{\alpha}_j \Delta \ln(1 + t_{Qj}) + \sum_{j=1}^{J} \bar{\alpha}_j \Delta \ln(\lambda_{Qj})$$

where $\bar{\alpha}_j$ is the average share of the jth product in total revenues in periods t and $t-1$. It should be

remembered from Table 3 that the sales tax is phased out between the initial and the final period,

so $\Delta \ln(1 + t_Q)$ amounts to $-\ln(1 + t_Q^0)$, where t_Q^0 is the pre-reform sales tax rate. Also, as with

effective input prices, note that we will be unable to distinguish the effects of imperfect arbitrage

from the effects of changes in external prices.

A generalized cost decomposition. Substituting these relative price expressions into our

unit cost decomposition (4) and writing costs and revenues as net of taxes, we obtain:

$$(7)\ \Delta \ln C - \Delta \ln\left(Q\tilde{P}_Q\right) = \left(\tfrac{1}{\eta} - 1\right)\Delta \ln Q + \left(\frac{\partial \ln C}{\partial \ln A}\right)\Delta \ln A$$
$$+ \bar{s}_I \Delta \ln(1 + \tau_I) - \Delta \ln(1 + \tau_Q)$$
$$+ \Delta \ln(1 + t_Q)$$
$$+ \bar{s}_I [\Delta \ln(P_I^* \lambda_I) - \Delta \ln(P_Q^* \lambda_Q)]$$
$$+ \bar{s}_L [\Delta \ln \tilde{P}_L - \Delta \ln(P_Q^* \lambda_Q)] + \bar{s}_K [\Delta \ln(\tilde{P}_K) - \Delta \ln(P_Q^* \lambda_Q)]$$

Here, the first line on the right-hand side reflects the scale and other efficiency effects that we will

treat as a residual; the second line reflects the direct effects of commercial policy on unit costs, the

third line reflects the direct effect of eliminating sales taxes, and the last two lines reflect the

changes in relative prices not *directly* related to commercial policy or taxes. Of course, the general

equilibrium effects of these policy changes come partly through $\lambda_I, \lambda_Q, \tilde{P}_L$ and $\tilde{P}_K$—we are

unable to isolate these indirect effects. Note also that under the perfect arbitrage assumption (i.e.,

when $\lambda_I = \lambda_Q = 1$), these last lines simply pick up changes in wages and world prices.

Since we are unable to observe effective prices for capital services directly, we will henceforth assume that they grow at the same rate as the pre-tariff rate of growth in domestic output prices, $\Delta \ln(P_Q^* \lambda_Q)$. The last line then becomes a wage effect alone:

$$
\begin{aligned}
(7') \ \Delta \ln C - \Delta \ln\left(Q \tilde{P}_Q\right) = & \left(\tfrac{1}{\eta} - 1\right)\Delta \ln Q + \left(\frac{\partial \ln C}{\partial \ln A}\right)\Delta \ln A && (\textit{residual efficiency effect}) \\
& + \overline{s_I}\,\Delta \ln(1 + \tau_I) - \Delta \ln(1 + \tau_Q) && (\textit{effective protection effect}) \\
& + \Delta \ln(1 + t_Q) && (\textit{tax reform effect}) \\
& + \overline{s_I}[\Delta \ln(P_I^* \lambda_I) - \Delta \ln(P_Q^* \lambda_Q)] && (\textit{relative pre} - \textit{tax input price effect}) \\
& + \overline{s_L}[\Delta \ln \tilde{P}_L - \Delta \ln(P_Q^* \lambda_Q)] && (\textit{relative cost of labor effect})
\end{aligned}
$$

It is worth commenting that equation (7) deals only with changes in marginal tax rates, and misses the effects of lump sum taxes entirely. We experimented with a more general formula that accommodates lump sum taxes and found that they played a negligible role during the sample period.[9]

Measuring Dispersion in Protection As noted in section 2, a major objective of the Cameroonian reforms was to reduce cross-firm dispersion in protection. To quantify the government's success in this regard, we need to measure the effects of protection on firm-specific unit cost *levels* rather than unit cost growth rates. For this purpose we shall use our decomposition to measure the change in unit costs that would have occurred for each firm when going from a hypothetical regime of zero tariffs to the tariff rates it actually paid. Cross-firm

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[9] To treat lump-sum taxes, define these taxes to be T and write costs inclusive of lump-sum taxes as $C^* = C + T$. The decomposition can then be generalized to: $\Delta \ln\left(C^*\right) - \Delta \ln\left(Q \tilde{P}_Q\right) = \overline{\theta}[\Delta \ln(C) - \Delta \ln\left(Q \tilde{P}_Q\right)] + (1 - \overline{\theta})[\Delta \ln(T) - \Delta \ln\left(Q \tilde{P}_Q\right)]$, where $\theta = C/(C + T)$ is the share of costs before lump-sum taxes in total costs, and an overbar denotes the cross-period average. The first right-hand term is simply equation 7 weighted by $\overline{\theta}$, and the second term picks up the effect of growth in the ratio of lump sum taxes to net revenue. We implemented this generalized decomposition on our data and found extremely small values for the second term.

dispersion in this rate of unit cost increase—before versus after commercial policy reforms—provide a basis for assessing changes in the amount of preferential treatment in the tariff code.

To construct these measures of net tariff protection we require several additional assumptions. First, in the tradition of most effective protection calculations, we assume perfect international arbitrage and set $\lambda_I = \lambda_Q = 1$. Second, we need figures for the hypothetical expenditure shares that would have prevailed if producers had faced zero tariffs. Our solution is to assume that the elasticity of substitution among all intermediate inputs is unity. Then the same shares prevail with and without tariffs, and the tariff effect in second line of equation (7') becomes approximately $\tau_Q - s_I \tau_I = \tau_Q - \sum_{i=1}^{N} s_{Ii} \tau_{Ii}$.[10] This expression is a variant of the standard effective

protection measure when expressed as a ratio to value-added per unit revenue: $\dfrac{\tau_Q - \sum_{i=1}^{N} s_i \tau_{Ii}}{1 - \sum_{i=1}^{N} s_i}$.[11]

4.   The Data

The RPED surveys collected data on costs, sales, taxes, tariffs and other variables from roughly 200 Cameroon firms for the fiscal years 1992-93 and 1994-95. However, these surveys did not collect information on the prices of inputs and outputs. Hence, as part of a recently completed project, roughly 80 firms in the RPED data base were re-visited and asked for recall

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[10] This follows because $ln(1+x) \cong x$ for small x values.

[11] The most common alternative approach is to presume there are *no* substitution possibilities at all among intermediate inputs. This approach implies that our translog cost function is a poor approximation to technology, and effective protection calculations are best done using input shares based on international prices.

information on the values and quantities of their five major inputs and five major outputs in both fiscal years. Only a subset of 36 firms was able to supply complete and credible information; we will henceforth refer to this sub-sample as the "re-surveyed" firms.

Using this sub-sample, we constructed unit prices for each product by dividing the value of production by the number of units produced. For example, indexing products by j, we obtained $P_{jt} = V_{jt} / Q_{jt}$, j = 1, J. Intermediate input prices and the cost of labor were imputed analogously. The prices were reported inclusive of tariffs and sales taxes, so they correspond to the effective prices $\tilde{P}_{Qj}$ and $\tilde{P}_{Ii}$ described above. We augmented tariff data reported by the firms with official tariff information by product line obtained from the Cameroon government. Hence, we were able to impute $\Delta \ln(\lambda_Q P_Q^*)$ and $\Delta \ln(\lambda_I P_I^*)$ using the identities. [12] Finally, with these building blocks, we were able to solve for the residual scale economy and productivity effect,

$$\left(\tfrac{1}{n} - 1\right)\Delta \ln Q + \left(\frac{\partial \ln C}{\partial \ln A}\right)\Delta \ln A .$$

For the purpose of variable construction, tariffs (τ) before the reform were composed of the four types of tariffs (DD, DE, TCAI and TC) for firms operating under the normal regime, and of the TU or TIP applicable to imports for firms receiving special privileges. (The appendix provides descriptions of these tariffs and taxes). After the reforms, tariffs (τ) included the TEC or TPG. On the other hand, tax burdens (t) included the ICAI for firms operating under the normal regime before the reform and the TU or TIP applicable to local sales for firms operating under a

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[12]   An interesting extension would be to exploit data on international prices and isolate growth in λ's from growth in P^*'s.

special regime. After the reforms, the indirect tax burden is composed of the TCA. Further discussion of the data may be found in Tybout *et al* (1997).

5. Basic Findings: Pooled Sample

Turning to our findings, let us begin with an overview of the magnitudes of the different shocks to unit cost. Equation (7') provides the relevant decomposition; it is empirically rendered in Table 4. We also report real output growth. Each mean component of our decomposition is accompanied by a *t*-ratio; asterisks indicate whether the means are significantly different from zero. (Tests are done under the assumption that the firm-specific realizations are independent and normally distributed.) Alternative renderings of the same decomposition based on output-weighted averages, medians are provided in Tables 5 and 6, respectively. Medians are done component by component, so they do not satisfy our identity exactly. Table 7 provides descriptive statistics on the prices that are used to construct our unit cost decomposition. Finally, Table 8 reports the *levels* and dispersion in effective protection measures discussed in section 3 above.

The general pattern: For our pooled sample of 36 firms, the average increase in unit costs was 8 percent, and not significantly different from zero. But this mild cost increase reflected several more dramatic, offsetting forces. The single most important shock was commercial policy reforms, which drove up cost per unit revenue by 20.5 percent (*t*-ratio 8.45), on average. Increases in the (pre-tariff) relative price of intermediate goods added an additional 5.5 percent (*t*-ratio 1.15). Offsetting these effects were tax reforms, which reduced unit costs 2.7 percent (*t*-ratio 5.4), reductions in the relative price of labor, which reduced unit costs 6.8 percent (*t*-ratio 2.39)

and productivity gains, which reduced unit costs 8.5 percent (*t*-ratio 1.27).[13] The same patterns

emerge from the medians and weighted averages, hence our results are robust with respect to

measure of central tendency.[14] (Refer to tables 5 and 6.)

Why explains the signs and magnitudes of these effects? The tax reforms reduced unit

costs because, as noted in connection with table 1, pre-reform turnover taxes were a larger

fraction of total sales than post-reform value-added taxes. Nonetheless, the impact of the domestic

tax reforms was small because most of the pre-reform fiscal privileges took the form of tariff

reductions. The significant reduction in relative labor costs is also unsurprising because nominal

wages typically take some time to adjust to major devaluations. However, it is remarkable that

productivity tended to improve rather than decline, given the magnitude of the reduction in

effective protection and the associated profit margin squeeze.

Finally, the large effect of the commercial policy reforms reflects a drop in the average

nominal tariff rate on outputs from 68 percent to 27 percent, combined with a much smaller drop

in the average nominal tariff rate on inputs, from 21 percent to 17 percent. The reforms affected

tariffs on products that the firms sold more than those on products they bought because protection

levels on imported intermediate goods were already relatively modest before the reforms.   This

liberalization effect is also apparent in Table 8, where it can be seen that our effective protection

measures fell on average between 80 and 100 percentage points, depending on whether all inputs

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[13]   Several other studies of productivity growth among Cameroonian manufacturers have been based on sector-level price deflators and have found smaller average rates of productivity growth (Biggs, et al, 1996; Bigsten et al, 2000). The one study that uses the same firm-level deflators we use here and arrives at the same figure of 8.5 percent (Tybout, *et al*, 1997).

[14]   Qualitatively, the patterns match almost exactly. The only exception is the intermediate input price effect, which does not show up in our weighted averages.

and outputs are treated as perfectly tradable (upper panel), or whether non-imported inputs are treated as non-tradable (lower panel).[15]

Table 8 also reveals that the amount of cross-firm *dispersion* in effective protection dropped dramatically with the reforms. The cross-firm standard deviation in effective protection rates was a whopping .90 before the reforms, and the firm-specific values ranged from .22 to 4.02. After the reforms the standard deviation was 0.34 and the range was 0.10 to 1.69. This leveling of the playing field was largely due to the elimination of special exemptions, as discussed in section 2 above.

One issue that often arises in Africa is whether policy reforms tend to work at cross purposes. In a sense, this appears to have occurred in Cameroon. The removal of implicit subsidies that took place with the commercial policy reforms was somewhat offset by the domestic tax reforms and the exchange rate devaluation. Nonetheless, the reductions in effective protection and the devaluation *did* systematically change the returns to tradable versus non-tradable goods production, as we will discuss shortly.

6.   Dissaggregated Findings

Exporters vs. Non-exporters: Breakdowns by market orientation reveal that, on average, firms that were exporting in 1992-93 resembled non-exporters in most respects, although they avoided the increases in relative intermediate input prices that non-exporters suffered. This contrast probably reflected the 100 percent CFA devaluation against the French Franc that took

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[15]   These figures are not "traditional" in the sense that firm-specific input shares are used, rather than an economy-wide input-output table. In keeping with convention, these figures describe the percentage change in value-added (rather than the percentage change in cost per unit revenue), so neither set of calculations is

place between the sample years, which should have driven up their output prices relatively rapidly. It probably also reflected some general equilibrium effects due to the commercial policy reforms.

If we divide our sample of firms according to whether they exported in 1994/95, the contrast is more dramatic. Exporters in this group didn't do unusually well in terms of their relative input prices. Nonetheless, they avoided unit cost increases altogether, mainly because they managed to increase their productivity by 19.1 percent (*t*-ratio 2.17). (They also registered rapid output growth, on average, although it was not statistically significant.) Qualitatively, the same picture emerges from output-weighted averages and medians. The fact that firms exporting at the end of the sample period did better than firms exporting at the beginning of the sample period probably reflects self-selection effects. Firms that experienced cost reductions tended to begin exporting, and those that experienced cost increases tended to cease (Clerides, et al, 1998). Another interpretation is that the pre-reform incentive structure induced a number of firms to export products that were not to the country's comparative advantage.

Imported Input-intensive Firms: Producers who relied relatively heavily on imported inputs fared a bit better than those that did not, but the contrast was not statistically significant. Several opposing forces were at work. First, as one might expect, the import-intensive group was hurt a bit less by the commercial policy reforms.[16] Second, and also as one would expect, the devaluation raised their intermediate input prices, while these prices remained stable relative to

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directly comparable to the fourth column of Table 4. Specifically, the percentage change in costs due to tariff reforms has been divided by the share of value-added in gross output.

[16] One reason we do not record larger disparities is simply that the net tariff effect presumes perfect arbitrage between domestic and imported inputs. Hence, regardless of whether firms actually imported their inputs, they are assumed to benefit equally from liberalization-induced price reductions.

output prices for the firms that sourced their inputs domestically. Finally, labor costs relative to output prices fell relatively rapidly among the import-intensive producers.

The same pattern emerges from sample medians (Table 6), but output-weighted figures tell a somewhat different story about the relative performances of the two sets of firms (Table 5). The output-weighted figures show larger cost increases for import-intensive producers, and smaller cost increases for domestic input-intensive producers. However, the contrast does not trace to direct commercial policy or fiscal policy effects. It is due pre-tariff intermediate input prices, which are sensitive to whether averages are weighted because large import-intensive firms experienced major adverse shocks.

Sector-based Breakdowns. In terms of sectors, wood sector firms, on average, recorded a larger unit cost growth, with a 23 percent increase. This finding traces to a large commercial policy-based reduction in output prices, which more than offset the relatively large improvements in pre-tariff relative prices and relatively small domestic tax effects.[17] Output-weighted averages and median figures reveal that larger wood sector firms fared better than smaller ones, making sector-wide output growth positive.

In the food sector, weighted averages and median figures indicate that larger food sector firms endured a substantial increase in unit costs. Despite a smaller commercial policy impact on the food sector and larger productivity gains than in other sectors, it was hit more severely by pre-tariff intermediate input price effects, which increased unit costs by 16 percent (output-weighted).

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[17]   In our sample in 1994/95, 6 of the 15 food producers, 6 of the 9 textiles producers and 4 of the 9 metal producers are exporters. However, none of the 4 wood producers in our sample are exporters. In this regard, we caution that our sample is not representative of the full RPED population. Indeed, despite that 7 of the 40 wood sector firms in the RPED survey are exporters, these firms did not give us complete price and tax information and hence do not appear in the re-surveyed sample. Our sample of wood producers is thus composed of non-exporters who did not experience much increase in their output price.

Textiles and metal products experienced relatively modest cost increases, despite substantial reductions in protection, partly because they realized large productivity gains. (See Table 7.)

7.   Summary and Conclusions

To summarize, we have quantified several basic changes in the incentive structure that resulted when a maxi-devaluation was accompanied by substantial tariff reductions and a major simplification in the tax structure. First, the combined effect of these changes in the economic environment was to increase costs per unit revenue by 8 percent on average. Second, the main force driving up unit costs was the commercial policy reform, which reduced nominal protection rates on outputs much more rapidly than protection rates on inputs. The cross-firm dispersion in effective protection rates also fell markedly. Thus, despite the presence of other shocks, Cameroon's trade reforms appear to have created clear new signals for manufacturers. Third, tax reforms, reductions in the relative price of labor, productivity growth, and changes in the domestic tax structure cushioned the effects of the trade liberalization on profit margins. Finally, the CFA devaluation twisted relative prices in favor of exportable goods. Hence, as with commercial policy, the new exchange rate regime shifted the incentive structure as intended at the ground level.

Overall, our firm-level panel data have allowed us to measure the effects of the policy reforms on different types of firms with considerably more precision and detail than aggregate data afford. Accordingly, we hope that this study provide a useful methodological example for researchers and policy makers concerned with the consequences of related reform packages elsewhere.

Table 4: Commercial Policy, Tax Reform, and Unit Production Costs (Equation 7)
Unweighted Averages

Subsample (*number of firms*)	*net unit cost growth*	*tariff effect, outputs (i)*	*tariff effect, inputs (ii)*	*Effective protection Effect (i)+(ii)*	*Labor price effects*	*Intermediate input price effects*	*residual productivity effects*	*domestic tax effects*	*real output growth*
Food (14)	0.081	0.176**	-0.027**	0.149**	-0.065	0.130**	-0.107	-0.026**	0.028
	(0.463)	(3.943)	(-2.349)	(3.241)	(-1.398)	(2.547)	(-0.746)	(-3.243)	(0.183)
Textiles (9)	0.029	0.243**	0.008	0.250**	-0.059	-0.029	-0.104	-0.029**	0.222
	(0.219)	(10.125)	(1.000)	(11.538)	(-0.932)	(-0.422)	(-0.429)	(-2.900)	(0.915)
Wood Products (4)	0.230	0.355**	0.000	0.355**	0.012	-0.095	-0.034	-0.007	0.004
	(1.247)	(1775.0)	(n.a.)	(1775.0)	(0.289)	(-1.284)	(-0.301)	(-0.933)	(0.035)
Metal Products (9)	0.063	0.216**	-0.037	0.205**	-0.118*	0.091	-0.085	-0.027*	-0.335
	(0.604)	(5.143)	(-2.921)	(4.184)	(-1.914)	(1.162)	(-0.399)	(-2.250)	(-1.573)
Small (17)	0.053	0.239	-0.020**	0.219**	-0.053	0.077	-0.210*	-0.021**	0.084
	(0.353)	(1.060)	(-2.425)	(8.361)	(-1.316)	(1.470)	(-1.941)	(-2.793)	(0.430)
Medium (11)	0.045	0.209**	-0.016	0.193**	-0.117	0.004	0.000	-0.034**	-0.139
	(0.450)	(4.126)	(-1.561)	(3.903)	(-1.748)	(0.061)	(0.000)	(-3.317)	(-1.155)
Large (8)	0.185	0.208**	-0.016	0.193**	-0.032	0.081	-0.025	-0.031**	-0.063
	(1.553)	(3.440)	(-0.823)	(2.689)	(-1.052)	(1.076)	(-0.305)	(-3.812)	(-0.459)
All firms (36)	0.080	0.222**	-0.018	0.205**	-0.068**	0.055	-0.085	-0.027**	-0.017
	(0.996)	(9.867)	(-1.340)	(8.425)	(-2.386)	(1.150)	(-1.275)	(-5.400)	(-0.165)

Notes: *t* statistics are in parentheses
   *   Significantly different from zero at 10 %,
   ** Significantly different from zero at 5 %

Table 5: Commercial Policy, Tax Reform, and Unit Production Costs (Equation 7')
Output Weighted Averages

Industry	net unit cost growth	Tariff effect, outputs (i)	Tariff effect, inputs (ii)	effective protection effect (i)+(ii)	labor price effect	Intermediate input price effects	residual productivity effects	domestic tax effects	real output growth

Table 6: Commercial Policy, Tax Reform, and Unit Production Costs (Equation 7')
Medians

Industry	net unit cost growth	tariff effect, outputs (i)	tariff effect, inputs (ii)	effective protection effect (i)+(ii)	labor price effect	Intermediate input price effects	residual productivity effects	domestic tax effects	real output growth
Food (14)	0.343	0.209	-0.007	0.202	-0.011	0.123	0.067	-0.014	-0.120
Textiles (9)	0.143	0.244	0.000	0.244	-0.038	-0.079	-0.136	-0.027	0.117
wood products (4)	0.130	0.356	0.000	0.356	-0.008	-0.078	-0.147	0.000	0.032
metal products (9)	0.205	0.213	-0.030	0.180	-0.068	0.099	-0.096	-0.024	-0.315
Domestic Input Intensive (18)	0.156	0.244	-0.000	0.238	-0.017	-0.013	-0.140	-0.009	0.083
Imported Input Intensive (18)	0.259	0.224	-0.024	0.214	-0.055	0.151	-0.314	-0.021	-0.314
Non-Exporters 92-93 (24)	0.263	0.224	-0.005	0.215	-0.020	0.077	0.005	-0.006	-0.028
Exporters 92-93 (12)	0.022	0.271	-0.001	0.262	-0.068	-0.023	-0.116	-0.042	-0.151
Non-Exporters 94-95 (21)	0.324	0.215	-0.000	0.215	-0.013	0.045	0.083	-0.010	-0.298
Exporters 94-95 (15)	-0.018	0.266	-0.005	0.263	-0.089	0.048	-0.157	-0.024	0.049
Small (17)	0.205	0.233	0.000	0.215	-0.031	0.055	-0.139	-0.004	0.018
Medium (11)	0.143	0.244	-0.008	0.244	-0.046	0.017	-0.083	-0.027	-0.128
Large (8)	0.259	0.243	-0.004	0.246	-0.011	0.050	-0.035	- 0.027	-0.162
Total (36)	0.190	0.237	-0.002	0.230	-0.035	0.046	-0.067	-0.014	-0.116

Table 7: Growth in prices of output, intermediate input and labor
(Re-surveyed subsample, cumulative percentages 1992-93 to 1994-95)*

	Mean ($\bar{x}$)	Standard deviation (s_x)	Standard deviation of mean ($s_x / \sqrt{n}$)	Median	Interquartile Range
Pooled Sample (36)					
Output price (P_Q)	37.3	67.3	11.2	21.4	2.0 to 51.9
Input price (P_I)	73.0	68.3	11.4	72.1	20.6 to 108.4
Wage rate (P_L)	21.4	65.2	10.9	11.7	-21.1 to 45.8
Rel. Input price (P_I / P_Q)	44.2	65.3	10.9	35.8	2.7 to 73.7
Rel. labor cost (P_L / P_Q)	5.3	68.1	11.4	-19.3	-34.9 to 39.8
Domestic Input Intensive (18)					
Output price (P_Q)	26.8	72.3	17.0	14.6	-8.6 to 37.4
Input price (P_I)	50.9	59.4	14.0	48.5	0.0 to 73.5
Wage rate (P_L)	37.3	75.4	17.8	33.3	-17.5 to 53.6
Rel. Input price (P_I / P_Q)	37.3	57.6	13.6	33.3	6.0 to56.0
Rel. labor cost (P_L / P_Q)	31.9	80.2	18.9	21.3	-29.1 to 70.2
Imported Input Intensive (18)					
Output price (P_Q)	47.9	62.2	14.7	33.2	19.2 to 58.5
Input price (P_I)	95.0	71.1	16.8	94.6	71.3 to 133.6
Wage rate (P_L)	5.4	50.3	11.9	3.1	-34.6 to 23.8
Rel. Input price (P_I / P_Q)	51.0	73.3	17.3	44.3	-2.2 to 98.3
Rel. labor cost (P_L / P_Q)	-21.3	40.0	9.4	-31.8	-43.0 to –4.4
Non Exporters (24)					
Output price (P_Q)	25.3	56.7	11.6	18.5	-4.3 to 39.3
Input price (P_I)	73.2	71.5	14.6	69.6	10.7 to 120.5
Wage rate (P_L)	27.9	76.5	15.6	21.6	-32.3 to 57.0
Rel. Input price (P_I / P_Q)	50.7	61.9	12.6	44.3	6.5 to 91.1
Rel. labor cost (P_L / P_Q)	15.8	72.0	14.7	4.7	-34.4 to 53.3
Exporters (12)					
Output price (P_Q)	61.4	82.2	23.7	50.6	15.0 to 84.2
Input price (P_I)	72.5	64.6	18.6	73.2	35.0 to 96.3
Wage rate (P_L)	8.3	32.2	9.3	3.3	-13.5 to 31.7
Rel. Input price (P_I / P_Q)	31.2	72.8	21.0	25.9	-8.7 to 52.9
Rel. labor cost (P_L / P_Q)	-15.8	56.4	16.3	-30.7	-37.0 to –8.8

*Numbers of firms in each subsample are given in parentheses

Table 8: Traditional Effective Rates of Protection
Unweighted Averages and Standard Deviations

		ALL	Food	Textile	Wood Product	Metal & Metal Product	Non Exporters	Exporter	Domestic Input Intensive	Imported Input Intensive	Small	Medium	Large
Number of firms		34	14	9	4	7	24	10	18	16	16	11	7
Only imports tradeable													
	Mean	1.6	1.46	1.83	2.27	1.18	1.58	1.65	1.73	1.45	1.84	1.6	1.04
ERP:	Std.	0.9	0.94	1.01	0.5	0.64	0.87	1.02	0.7	1.08	0.79	1.06	0.69
92-93	Max.	4.02	3.2	4.02	2.88	2.21	3.2	4.02	3.2	4.02	3.2	4.02	2.45
	Min.	0.22	0.22	0.7	1.79	0.45	0.22	0.7	0.7	0.22	0.22	0.52	0.3
	Mean	0.59	0.68	0.51	0.8	0.42	0.69	0.37	0.73	0.45	0.78	0.4	0.46
ERP:	Std.	0.34	0.4	0.26	0.17	0.27	0.34	0.19	0.33	0.28	0.36	0.26	0.08
94-95	Max.	1.69	1.69	0.94	1.01	0.79	1.69	0.66	1.69	1.2	1.69	0.96	0.59
	Min.	0.1	0.23	0.1	0.63	0.11	0.23	0.1	0.31	0.1	0.23	0.1	0.37
All inputs tradeable													
	Mean	1.15	0.92	1.62	1.09	1.02	1.01	1.48	0.96	1.35	1.08	1.34	0.98
ERP:	Std.	0.81	0.67	1.14	0.25	0.66	0.67	1.05	0.46	1.07	0.68	1.04	0.75
92-93	Max.	4.02	2.33	4.02	1.46	2.21	2.33	4.02	2.29	4.02	2.29	4.02	2.54
	Min.	0.24	0.24	0.49	0.92	0.45	0.24	0.58	0.3	0.24	0.24	0.41	0.26
	Mean	0.35	0.37	0.36	0.29	0.34	0.39	0.25	0.33	0.37	0.4	0.26	0.37
ERP:	Std.	0.17	0.15	0.18	0.03	0.25	0.14	0.2	0.14	0.2	0.16	0.16	0.19
94-95	Max.	0.79	0.68	0.61	0.32	0.79	0.79	0.61	0.68	0.79	0.79	0.46	0.61
	Min.	0.03	0.03	0.1	0.25	0.07	0.23	0.03	0.03	0.07	0.23	0.07	0.03

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Producers subject to full taxation who engaged in international trade faced the following additional fiscal obligations:

a) Imports of intermediate goods were subject to four taxes, the first three dictated by UDEAC norms, and the fourth created by Cameroon. The *Droits de Douanes* (DD) was applied at rates varying from 5 percent to 30 percent on all products, regardless of origin. The *Droits d'Entrée* (DE) also applied to all products and origins, with rates varying between 5 percent and 90 percent, although certain goods were exempt. The *Taxe sur le chiffre d'affaires à l'importation* (TCAI) was imposed at a rate of 10 percent of the CFAF value plus DD+DE. Finally, the *Taxe complémentaire à l'importation* (TC) was charged ad valorem, with rates varying between 0 and 100 percent.

b) Imports were also subject to other taxes, including an unloading fee, a municipal tax, a tax imposed by the *Conseil national des chargeurs*, a tax on meat inspection, a veterinary tax, and a special tax on fuel.

Special treatment from the tax authorities was available to manufacturers through a variety of mechanisms, on a case-by-case basis. These included:

a) *Tax unique* (TU) Originally designed as a means of encouraging industrialization and trade between UDEAC countries, the TU offered firms several advantages. Qualifying firms were exempt from the domestic sales tax (ICAI), which was replaced by a firm-specific TU rate. The TU rate also replaced the tariff system. Furthermore, the TU granted preferential access to export markets in other UDEAC countries, since products were exempt from duties. Finally, neither the ICAI nor the TU tax were collected on sales to other firms with TU status. TU rates were negotiated on a firm-specific basis, and different firms may thus have paid different rates for the same product. In addition, the same firm would pay different rates on its products, depending on the country to which they were exported. To obtain TU status, firms applied to the Management Committee of the UDEAC Secretariat.

b) *Taxe Intérieure à la Production* (TIP) Since access to the TU proved difficult, Cameroon

the basic regime, the small and medium-sized enterprise regime, the strategic enterprise regime, the reinvestment regime and the free trade zone regime (see below).[21] In contrast to the TU/TIP rates, which could be negotiated with the authorities, IC benefits were supposedly non-negotiable. However, benefits under the TU/TIP and IC regimes were not mutually exclusive. Thus a firm could benefit under more than one scheme at once.

d) *Zone Franc and Point Franc* Free trade zones (FTZ) were part of the Investment Code in 1990, but were covered by separate legislation and administered by a separate organization. To be eligible for a FTZ, a firm had to export 80 percent of its output and its activities had to be eligible for the basic Investment Code regime. The firm itself had to be located in an industrial free zone or be designated "*Point franc industriel*" (factory-specific free zone) if it needed to be adjacent to raw material. Free trade status brought full exemption from international and indirect taxes, and profit taxes were imposed at a reduced rate.

e) *Convention Spéciale* (CS) Firms that did not find special tax schemes suited to their own specific needs could negotiate directly with the Ministry of Finance to establish a *Convention spéciale* (special agreement). No guidelines existed regarding the benefits and exemptions available under such agreements, and in theory a firm could have obtained full exemption from all tax obligations, including the Patente, for its lifetime. This unusual tax scheme was generally reserved for public or very large enterprises.

The Fiscal Environment After 1994

Decrees were adopted in Cameroon on January 24, 1994, to implement the fiscal and

trade reforms. These reforms included four components affecting external trade:

a) *Tarif extérieur commun* (TEC) The four-types of tariffs were replaced by a unified single system known as the TEC, applicable to imports from non-UDEAC countries. Also, all external trade privileges under the Investment Code and special production regimes (TU, TIP, Conventions d'établissement) were eliminated.

b) Imports were classified into four categories, with tariff rates ranging from 5 percent to 30 percent, compared with rates ranging from 0 percent to 500 percent under the previous system.

c) *Tarif préférentiel généralisé* (TPG) A general preferential tariff was introduced for trade between UDEAC countries, with an initial rate fixed at 20 percent of the applicable TEC.[22]

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[21] For more details on the eligibility criteria and the benefits associated with each regime, see RPED (1993a), Table 5, Appendix C.

[22] This rate was to be reduced to 10 percent on January 1 1996 and 0 percent on January 1 1998.

d) A mechanism was created for charging a temporary surtax of not more than 30 percent on a set of products previously covered by quantitative restrictions and a list of designated products.

With respect to indirect taxes, the reform essentially replaced the various sales taxes with a value-added tax, and eliminated special privileges. The specific measures were:

a) The elimination of all indirect tax privileges under the special production regimes (TU, TIP, Conventions d'etablissement) and the Investment Code, except the Free Trade Zone.

b) The introduction of a "Taxe sur le chiffre d'affaire" (TCA) (sales tax), a quasi-VAT tax applicable to domestic production and to imported inputs and intermediates, replacing the former sales and production tax (ICAI, TU, TIP). Three categories of products were specified: those subject to the normal rate (12.5 percent, increasing to 15 percent on January 1, 1995, and to 17 percent in 1996), those subject to the reduced rate (5 percent, increasing to 8 percent on January 1, 1995) and exempted goods.[23]

c) The creation of a mechanism for applying excise taxes to certain products.

On February 1, 1994, the reform went into force for firms governed by the common law system. Firms receiving special fiscal privileges were allowed a transition period. Those governed by the IC, TU and TIP were not subject to the new regime until the 1994-1995 fiscal year (beginning July 1, 1994). Firms governed by special agreements were given until December 31, 1995, to regularize their situation. This period of negotiation was later extended to March 31, 1996.

Notably, the reforms left the free trade zone (FTZ) intact. Hence, qualifying firms continue to enjoy full exemption from import duties and TCA, and are excused from income taxes in the

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[23]   We use the term "quasi" because firms initially paid taxes on their purchases, then periodically applied to the government for reimbursement.

first 10 ten years of their existence.[24] Also, exporters not in the FTZ can apply for refunds of a portion of the customs they pay on imported inputs. The fraction refundable is equal to the share of their total sales exported outside the UDEAC. However, given the inefficiency of the administration and the delays in paying tax credits, this benefit has proved of little use to marginal exporters.

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[24] Firms that already existed before the creation of the FTZ pay an income tax of 15 percent instead of the normal rate (38.5 percent).