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**Working document on developing countries' duties and taxes on
essential medicines used in the treatment of
the major communicable diseases**

WORKING DOCUMENT

DEVELOPING COUNTRIES' DUTIES AND TAXES ON ESSENTIAL MEDICINES USED IN THE TREATMENT OF THE MAJOR COMMUNICABLE DISEASES

SUMMARY

The Commission presented a policy framework on '*Accelerated Action targeted at major communicable diseases within the context of poverty reduction*' in September 2000¹ on the need for accelerated action targeted at major communicable diseases within the context of poverty reduction. It explains the issue of communicable diseases as a burden on the poorest and an obstacle to development, analyses the major policy issues involved, reports on the rationale for continuous Community involvement and sets out a framework with three broad areas for targeted action; (1) Reaching optimal impact of existing interventions, services and commodities targeted at the major communicable diseases affecting the poorest populations. (2) Increasing affordability of key pharmaceuticals through a comprehensive and synergistic global approach. (3) Increasing investment in research and development of global goods targeted at the three major communicable diseases.

In February 2001 the Commission adopted a *Programme for Action: Accelerated action on HIV/AIDS, malaria and TB in the context of poverty reduction*² which establishes a broad and coherent Community response over the period 2001-2006, to address the global emergency caused by the three major communicable diseases. The Programme for Action proposes *inter alia* that tariffs and other duties on essential medicines in developing countries are reduced or eliminated in order to make them more affordable. On 26 February 2003 the Commission adopted an update on the Programme for Action.³

The European Commission services have meanwhile carried out a study to assess the duties and taxes applying to pharmaceutical products used in the treatment of the major communicable diseases (HIV, malaria and tuberculosis). It should be stressed that the study gives a general overview of the situation. Although the information is of a general nature it has been thought appropriate to point to some facts that will be addressed further in the Commission work. The analysis has been complicated due to divergence in actual figures available

The study covers 57 countries representing 80% of the population of all African, South American, Asian (except Japan), Caribbean, Micronesian and Melanesian countries. There are approximately 27 classes of pharmaceutical products used in the treatment of the major communicable diseases, classified in either Chapter 29 (compounds) or Chapter 30 (medicaments and vaccines) of the Harmonized System (HS).

¹ Communication (2000) 585 of 20.09.2000

² Communication (2001) 96 of 21.02.2001

³ Communication (2003) 93 of 26.2.2003

The total amount of duties collected on these medicines by these countries is roughly 3 billion USD. Elimination of these duties would contribute significantly to lower consumer prices.

Our findings lead to the following remarks:

Customs duties and other duties

1. Customs duties vary significantly between 0 to 35% for compounds as well as for medicaments and vaccines. The average customs duty rate levied on these products is between 5% and 7% of the price of the imported product.
2. Few countries apply peak tariffs while a large majority apply low tariff rates. The countries which apply the highest rates include Nigeria, Pakistan, India and China.
3. Customs duties represent one third of the total taxes and duties applied to pharmaceutical products. The rates of “other duties” vary between 0 to 22% on compounds and between 0 to 15% on medicaments and vaccines.
4. Rates of VAT vary between 0 to more than 20%. The average VAT rate is generally high (11-12%) compared to the EU average (7%).

Total duties and taxes

5. Based upon data from EU exports, total duties and taxes (customs duty + VAT + other duties) applied to the products covered by the study vary from 0.01% in Malaysia to as high as 60% in India, with a global average of 18%.
6. Least Developed Countries have lower rates of duties and taxes, on average 14%, compared to the global average of 18%.
7. Applied total duties and taxes on compounds are generally higher than on manufactured medicaments.

Link between import value and rates of duties and taxes

8. No systematic correlation can be drawn from the study between the value of imports (weighted per inhabitant) and the rates of customs duties and taxes.

Public health expenditures compared to collected duties and taxes

9. Taxes and duties collected on these products represent 17% of the public health expenditure of Least Developed Countries and 9% on average for the countries covered by the study.

1. INTRODUCTION

Pursuant to the *Programme for Action: Accelerated action on HIV/AIDS, malaria and TB in the context of poverty reduction* setting out the work programme for the European Commission for 2001-2006, the Commission services have carried out an initial study to assess the duties and taxes applying to essential pharmaceutical products used in the treatment of the major communicable diseases (HIV, malaria and tuberculosis). The study covers 57 countries⁴.

1.1 IDENTIFICATION OF THE RELEVANT ESSENTIAL MEDICINES

A necessary preliminary step was to identify the chemical compounds used in the treatment of the major communicable diseases. This was done on the basis of the Essential Drugs List (EDL) published by the WHO⁵. The customs classification was obtained from the European Commission's customs database.

Pharmaceutical products are classified in either Chapter 29 or 30 of the Harmonized System (HS). Goods classified in Chapter 29 are the basic organic compounds used in the manufacture of drugs⁶. Goods classified in Chapter 30 are the manufactured pharmaceutical products: bulk medicaments, medicaments put up for retail and vaccines. Medicaments classified in Chapter 30 are further subdivided into antibiotics and other medicaments.

There are approximately 27 HS 6-digit headings corresponding to products used in the treatment of the major communicable diseases. The table summarizing the pharmaceutical products, their therapeutic groups and their HS classification can be found in Annex II.

For the sake of simplification, the results presented in the following tables only distinguish between the duties and taxes on four categories of product: compounds (molecules), bulk manufactured medicaments, retail manufactured medicaments and vaccines.

⁴ Countries considered: Algeria, Angola, Bangladesh, Benin, Bolivia, Botswana, Brazil, Burkina Faso, Cameroon, Central African Republic, Chad, China, Cote d'Ivoire, Cuba, Dominican Republic, Egypt, El Salvador, Eritrea, Gabon, Georgia, Ghana, Guatemala, Haiti, Honduras, India, Indonesia, Iran, Jamaica, Kenya, Kyrgyz Republic, Lesotho, Liberia, Malaysia, Mali, Mauritius, Mexico, Moldova, Morocco, Namibia, Nicaragua, Niger, Nigeria, Pakistan, Philippines, Senegal, Sierra Leone, South Africa, Sri Lanka, Syria, Tanzania, Thailand, Togo, Turkmenistan, Uganda, Uzbekistan, Vietnam, Yemen.

⁵ The 11th Model List of Essential Drugs, prepared by a WHO expert committee in 1999, contains 311 individual drugs. The drugs are classified by their name and by their therapeutic group.

⁶ It must be noted that at the six digit level of classification, besides active ingredients other chemicals with similar molecular structures may also figure, even if they have no pharmaceutical application.

1.2 ANALYSIS OF RATES APPLIED AND ESTIMATION OF THE VALUE OF DUTIES AND TAXES COLLECTED

Duties and taxes used in the study are those effectively applied in 2001⁷. In Annex 1 attached to this working document, the methodology applied is explained.

The Commission services will consider the need for further refinement of the methodology in preparation of more detailed work.

Section Two of the study examines the rates of duties and taxes applied in the 57 countries covered and looks at the range, the average and the distribution of the different rates. Countries above the 80th percentile on rates of customs duties, VAT and “other duties”⁸ are highlighted. In order to arrive at an estimate of a “total rate”, rates of customs duties, VAT and “other duties” have been added and averaged arithmetically. For most countries in this study, this should not present a problem as a single “tariff line” (a single rate for customs duties, a single rate for VAT and a single rate for “other duties”) is used for the entire class of pharmaceutical products under consideration.

Section Three of the study assesses the value of EU exports to these countries and uses this as a basis to estimate the value of duties and taxes collected. The trend, relative and total values, and various disparities among countries are successively reviewed. In this section, the average rates of customs duties, VAT and other duties have been weighted by the relative share in value of the four categories of products considered (i.e. compounds, bulk manufactured medicaments, retail manufactured medicaments, vaccines)⁹.

⁷ All WTO Members studied (except Georgia) apply significantly lower rates than their bound rates on the HS 6-digit numbers studied (WTO –Consolidated Tariff Schedules database).

⁸ Various “other duties” can be applied depending on the country, for instance: customs surcharge, statistical taxes, harbor fees, inspection fees, customs warehouse service fees, forms fees.

⁹ A complete overview of the methodology used in the study can be found in Annex I.

2 RATES OF DUTIES AND TAXES

This section estimates the rates of duties and taxes of the 57 countries studied. The range, the average and the distribution of the different rates are successively examined, as well as countries above the 80th percentile on rates of customs duties, VAT and “other duties”.

2.1 RANGE OF RATES APPLIED IN DEVELOPING COUNTRIES

The following table sums up the range of customs duties, VAT and other duties still applied to products used in the treatment of the major communicable diseases in the developing world. Developed countries agreed upon a zero-for-zero duty covering 7000 pharmaceutical products during the Uruguay Round.

As shown in the table, customs duties vary from 0% to 35% for compounds as well as for medicaments and vaccines. The scope is narrower for the rates of VAT and “other duties” but still ranges from 0% to more than 20%¹⁰.

Table 1

Range of duties and taxes applied to medicinal products used in the treatment of communicable diseases

	Customs duties		VAT		Other Duties		Sum of Duties and Taxes	
	Minimum	Maximum (1)	Minimum	Maximum (2)	Minimum	Maximum	Minimum	Maximum
Compounds	0%	35%	0%	20%	0%	15%	0,0% Tanzania	55,0% India
Medicaments (bulk and retail)	0%	35%	0%	20%	0%	15%	0,0% Gabon, Iran, Malaysia, Nicaragua, Uganda	55,0% India
Vaccines	0%	35%	0%	20%	0%	19%	0,0% Cuba, Gabon, Iran, Malaysia, Nicaragua, Uganda	40,0% Sierra Leone
Total (27 HS digits)	0%	0%	0%	0%	0%	0%	0,01% Malaysia	55,0% India

(1) India

(2) Georgia, Kyrgyz Republic, Moldova, Morocco, Turkmenistan, Uzbekistan

As shown in the last two columns of the table, the total duties and taxes applied to products vary from 0.01% in Malaysia to 55% in India.

¹⁰ In this section: Sum of duties and taxes = Customs duties + VAT + other duties (in Section Three, VAT and other duties are calculated on the value of imports + customs duties).

2.2 AVERAGE RATES APPLIED IN DEVELOPING COUNTRIES

The next table estimates the averages of customs duties, VAT and “other duties” applied to pharmaceutical products in the sample of the 57 countries studied.

Table 2

	Average of Duties + Taxes*	Average Customs Duty	Average VAT	Average Other Duties
Compounds	19%	6%	11%	3%
Manufactured Bulk Medicaments	15%	5%	9%	2%
Manufactured Retail Medicaments	16%	5%	10%	2%
Vaccines	15%	3%	10%	2%
TOTAL compounds+medicaments and vaccines	18%	5%	11%	2%

*Duty, VAT and "Other duties" have been arithmetically added, but the fact that the first column may not be the sum of the other three is the effect of rounding

Table 2 shows, first of all, that customs duties represent one third of the total duties and taxes (customs duty + VAT + other duties) applied to pharmaceutical products.¹¹

Customs duties represent around 5% of the price of these products. Total duties and taxes applied to these products amount to a total of around 18%, partly because the average VAT rate is generally high (11%) compared to the EU (7%)¹².

The table shows that compounds are more heavily taxed (19%) than manufactured medicaments (16%).

2.3 DISTRIBUTION OF RATES AMONG DEVELOPING COUNTRIES

The next table illustrates the shape of the distribution of rates among the countries studied. It shows that the distribution is skewed to some extent.

A picture of the distribution is given by the study of the 80th percentile of rates in customs duties, VAT and “other duties”, and by an estimation of the standard deviations in customs duties and VAT.

Table 3

	80% of countries are below this rate of Duties+Taxes	80% of countries are below this rate of Customs Duty	80% of countries are below this rate of VAT	Standard Deviation of Duty	Standard Deviation of VAT
Compounds	26%	9%	18%	6%	7%
Manufactured Bulk Medicaments	24%	10%	17%	7%	8%
Manufactured Retail Medicaments	24%	9%	18%	7%	8%
Vaccines	22%	5%	18%	6%	8%
TOTAL compounds+medicaments and vaccines	24%	8%	17%	6%	7%

The standard deviation is high, especially for customs duties (higher than the average customs duties for most categories of imported products) which means that few

¹¹ It is to be noted that the effect is proportional: a decrease in the rate of customs duties will involve a decrease in all the costs or tariffs based upon a percentage of the initial price (ad valorem).

¹² On reimbursed drugs: Denmark (25%), Germany (16%), Italy (10%), Finland (8%), Greece (8%), Belgium (6%), Netherlands (6%), Portugal (4%), Spain (4%), France (2.1%-5.5%), Ireland (0%), Austria (0%), Sweden (0%), UK (0%), Luxembourg (3%).

countries have very high rates of customs duties whereas the large majority of the others have low rates.

This analysis is confirmed by the study of the 80th percentile: for instance, on vaccines, 80% of the 57 countries studied have customs duties lower than 5%, but the standard deviation is 8%, which means that the 20% of the remaining countries have an average rate of customs duty of more than 13%.

To sum up, table 3 shows that 80% of the countries studied apply an average rate of customs duty below 8%. By the same token, total taxes and duties applied to these products are below 24% for 80% of countries. Hence, there are only very few countries applying a high rate either on customs duties alone or also on VAT and “other duties”.

2.4 COUNTRIES ABOVE THE 80TH PERCENTILE

This point attempts to list the countries having a really different pricing policy on duties and taxes applied to the pharmaceutical products studied. It studies the 20% countries above the 80th percentile as determined in the precedent table.

The next four tables name the 20% highest-rate countries for the four classes of products (compounds, bulk medicaments, retail medicaments, vaccines)¹³.

For instance, in table 4 (Compounds), countries with customs duties of above 9% represent the 20% highest-rate countries and are: Bolivia (10%), Cuba (10%), Ghana (10%), Georgia (11%), Kenya (11%), Nigeria (12%), Pakistan (12%), Algeria (15%), Morocco (16%) and India (35%).¹⁴

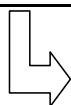
In table 6 (Retail Medicaments), countries imposing a combined rate of more than 24% of total duties and taxes represent the 20% highest-rate countries and are: Mexico (24%), Georgia (25%), Morocco (25%), Jamaica (27%), China (28%), Bangladesh (29%), Bolivia (32%), Pakistan (33%), Nigeria (34%), Sierra Leone (40%) and India (55%).

¹³ It should be noted that some countries (India, South Africa, Morocco etc) exempt from import duties or allow import at concessional rates, depending on the final use of the imported drugs. Besides, figures are rounded and this explains why there are not always 11 countries (20% of the countries studied) in the boxes.

¹⁴ The 80th percentile returns the 80th percentile of values in a range: 80th percentile of value in the range of customs duties, in the range of VAT etc. Since the ranges are not the same on an aggregated basis (countries with high customs duty rate will have low rate on VAT), the 80th percentile of the “sum of duties and taxes” (e.g. 26% in Table 4) is not the sum of the first three 80th percentiles (of “customs duties”, “VAT” and “other duties”).

Table 4

80th percentile on Compounds (molecules in 14 therapeutic groups)			
Customs duties	VAT	Other Duties	Sum of duties and taxes
9%	18%	5%	26%



ABOVE: Bolivia (10%), Cuba (10%), Ghana (10%), Georgia (11%), Kenya (11%), Nigeria (12%), Pakistan (12%), Algeria (15%), Morocco (16%), India (35%)



ABOVE: China (26%), Sri Lanka (26%), Uzbekistan (28%), Kenya (29%), Algeria (31%), Georgia (31%), Bolivia (32%), Pakistan (33%), Uganda (34%), Morocco (36%), India (55%)

Table 5

80th percentile on Bulk Medicaments			
Customs duties	VAT	Other Duties	Sum of duties and taxes
10%	17%	4%	24%

ABOVE: Jamaica (12%), China (13%), Mexico (16%), Nigeria (20%), Sierra Leone (20%), Morocco (28%), India (35%)

ABOVE: Georgia (25%), Ghana (25%), Jamaica (27%), Bangladesh (29%), China (30%), Mexico (31%), Pakistan (31%), Bolivia (32%), Nigeria (34%), Morocco (35%), Sierra Leone (40%), India (55%)

Table 6

80th percentile on Retail Medicaments			
Customs duties	VAT	Other Duties	Sum of duties and taxes
9%	18%	4%	24%

ABOVE: Bolivia (10%), Tanzania (10%), China (11%), Jamaica (12%), Pakistan (12%), Thailand (15%), Morocco (18%), Nigeria (20%), Sierra Leone (20%), India (35%)

ABOVE: Mexico (24%), Georgia (25%), Morocco (25%), Jamaica (27%), China (28%), Bangladesh (29%), Bolivia (32%), Pakistan (33%), Nigeria (34%), Sierra Leone (40%), India (55%)

Table 7

80th percentile on Vaccines			
Customs duties	VAT	Other Duties	Sum of duties and taxes
5%	18%	3%	22%

ABOVE: China (6%), Mexico (9%), Bolivia (10%), Ghana (10%), Tanzania (10%), Pakistan (17%), Nigeria (20%), Sierra Leone (20%), India (35%)

ABOVE: China (23%), Morocco (23%), Algeria (24%), Mexico (24%), Georgia (25%), Ghana (25%), Bolivia (32%), Nigeria (34%), Pakistan (38%), India (39%), Sierra Leone (40%)

3. DUTIES AND TAXES COLLECTED

3.1 ESTIMATE OF TOTAL AMOUNT OF DUTIES COLLECTED BY DEVELOPING COUNTRIES

As shown in table 8 below, the funds collected on EU imported products in 2001 by the 56¹⁵ countries studied comes essentially from customs duties and VAT¹⁶. The average rate of customs duty weighted by the value of imported products is 7.3%¹⁷. The average rate of VAT is 12.4%.

Table 8

	Value of EU imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"
Compounds	1.560.808	7,3%	12,4%	1,3%
Manufactured Bulk Medicaments	195.832			
Manufactured Retail Medicaments	3.294.364			
Vaccines	488.772			
Total funds collected on EU imports		401.724	736.417	75.500
				1.213.641

Assuming that the EU accounts for 55% of the total value of exports of the pharmaceutical products considered to the countries studied, duties and taxes represent an amount of more than €2.2 billion (€1.213 billion = 55% of the value of imports). Customs duties alone represent around €0.7 billion.

Since the countries studied represent 80% of the population of the developing regions, then, by extrapolation, the global amount of duties and taxes collected on these products is around €2.75 billion (€0.9 billion on customs duties alone).

3.2 DISPARITIES AMONG COUNTRIES

Table 9 shows the average and the distribution of the different duties and taxes applied to products imported from the EU. For various reasons (size of the country, level of development, etc), the range of duties and taxes collected is very large. Keeping in mind these differences among countries, table 9 shows that the value of customs duties collected by each country (from EU imported products only) is, on average, around €7 million. The average VAT amount collected on these products is around €13 million per country.

¹⁵ See footnote 12.

¹⁶ VAT and "other duties" are here added to the value of imports + customs duties.

¹⁷ In Section Three, the average global rate is weighted by the value of EU exports for each of the four categories. Hence, the study does not assess the differences in rates within each category. (See also Annex I for a more complete overview of the methodology).

The difference of two percentage points compared with Section Two of the study is explained both by the method of calculation (an assessment of the rates based upon the value of imports), and by the fact that higher rate countries (India, Morocco) import more products than lower rate ones.

Table 9

	Customs duty	VAT	Other duties
Sum of imports duties or taxes (in K EUR)	401.724	736.417	75.500
Average imports duties or taxes per country	7.174	13.150	1.348
80th Percentile	5.563	11.845	1.527
Standard deviation	16.448	30.236	3.306

Data for 56 countries, year 2001

However, the large disparities between countries suggest a lack of direct correlation between imports and rates of customs duties¹⁸. The import value per inhabitant ranges from € 0.1 in Kyrgyz Republic to € 21 in Gabon.

- **Countries individually collecting more than €100 million from EU imported products**

The next tables summarize the findings for countries collecting more than €100 million (in 2001) from EU imported products.¹⁹

The five countries listed in tables 10. to 14 represent more than €3 billion out of the €5.6 billion of EU exports (54% of EU exports to these 56 countries).

Table 10

Algeria	Value of EU imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds	8.256	14,6%	14,0%	2,4%	
Manufactured Bulk Medicaments	3.361	5,0%	0,0%	2,4%	
Manufactured Retail Medicaments	395.665	5,0%	17,0%	2,4%	
Vaccines	4.742	5,0%	17,0%	2,4%	
Total funds collected on EU imports		21.397	72.798	10.402	104.597
Rates of duties		5,2%	17,7%	2,5%	25,4%

¹⁸ No systematic correlation can be established between the average rate of customs duty and the value of imports of these countries: the correlation between the rate of customs duty and the value of imports per inhabitant is only 0.1 (no correlation); the correlation between the total rate (customs duty + VAT + other duties) and the value of imports per inhabitant is only 0.2 (no correlation).

¹⁹ In these tables the rates of VAT and "other duties" are calculated on the sum of the value of imports + the value of customs duties.

Table 11

Brazil					
	Value of EU imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds	304.663	4,9%	17,0%	0,0%	
Manufactured Bulk Medicaments	341.066	3,0%	17,0%	0,0%	
Manufactured Retail Medicaments	341.066	1,2%	17,0%	0,0%	
Vaccines	100.185	4,7%	17,0%	0,0%	
Total funds collected on EU imports		24.919	137.165	0	162.084
Rates of duties		3,2%	17,5%	0,0%	20,7%

Assuming that the EU supplies 55% of the imported products, Brazil imports around €1.4 billion of these products. Comparatively, an estimation (Comtrade database) of Brazilian total exports of these products is €224 million in year 2000. That is, Brazil imports six times more on these products that it exports.

Table 12

China

	Value of EU imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds	283.485	8,9%	17,0%	0,0%	
Manufactured Bulk Medicaments	27.395	12,8%	17,0%	0,0%	
Manufactured Retail Medicaments	275.276	11,0%	17,0%	0,0%	
Vaccines	31.450	6,0%	17,0%	0,0%	
Total funds collected on EU imports		60.931	115.351	0	176.282
Rates of duties		9,9%	18,7%	0,0%	28,5%

Assuming that the EU supplies 55% of the imported products, China imports around € 1.2 billion of these products. Comparatively, an estimation (Comtrade database) of Chinese total exports of these products is € 1.6 billion in 2000. That is, China exports more than it imports.

Table 13

India

	Value of EU imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds	132.745	35,0%	16,0%	4,0%	
Manufactured Bulk Medicaments	9.481	35,0%	16,0%	4,0%	
Manufactured Retail Medicaments	57.008	35,0%	16,0%	4,0%	
Vaccines	23.395	35,0%	0,0%	4,0%	
Total funds collected on EU imports		77.920	43.035	12.022	132.977
Rates of duties		35,0%	19,3%	5,4%	59,7%

Assuming that the EU supplies 55% of the imported products, India imports around €400 millions of these products. Comparatively, an estimation (Comtrade database) of Indian total exports of these products is €916 millions in year 2000. That is, India exports twice as much as it imports

Table 14						
Mexico		Value of imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds		320.722	7.0%	15.0%	0.0%	
Manufactured Bulk Medicaments		40.446	16.0%	15.0%	0.0%	
Manufactured Retail Medicaments		314.664	8.6%	15.0%	0.0%	
Vaccines		81.263	8.5%	15.0%	0.0%	
Total funds collected on EU imports			62.890	122.998	0	185.888
Rates of duties			8.3%	16.2%	0.0%	24.6%

Assuming that the EU supplies 55% of the imported products, Mexico imports around €1.4 billion of these products. Comparatively, an estimation (Comtrade database) of Mexican total exports of these products is €750 millions in year 2000. That is, Mexico imports more than it exports.

- **Countries of particular interest in the discussions on Access to Medicines**

Table 15						
South Africa		Value of imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds		44,978	1.6%	14.0%	0.0%	
Manufactured Bulk Medicaments		6,963	0.0%	14.0%	0.0%	
Manufactured Retail Medicaments		330,201	0.0%	14.0%	0.0%	
Vaccines		20,134	0.0%	14.0%	0.0%	
Total Duty collected on EU imports			704	56,417	0	57,121
Rates of duties			0.2%	14.0%	0.0%	14.2%

Table 16						
Nigeria		Value of imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds		2,947	12.1%	5.0%	8.5%	
Manufactured Bulk Medicaments		1,355	20.0%	5.0%	8.5%	
Manufactured Retail Medicaments		126,015	20.0%	5.0%	8.5%	
Vaccines		32,203	20.0%	5.0%	8.5%	
Total Duty collected on EU imports			32,271	9,740	16,557	58,568
Rates of duties			19.9%	6.0%		

- **Situation of the Least Developed Countries (LDCs) studied**

Table 17 summarizes the situation of the 17 represented LDCs²⁰.

Table 17						
17 LDCs among the 56 countries studied						
		Value of EU imports (in K EUR)	Average rate of Customs Duty	Average rate of VAT	Average rate of "other duties"	
Compounds		21.224	1.9%	8.8%	2.8%	
Manufactured Bulk Medicaments		5.590				
Manufactured Retail Medicaments		272.059				
Vaccines		39.568				
Total Imports		338.440				
Total duties and taxes collected on EU imports			6.263	30.365	9.669	46.298

The 17 LDCs studied imported €338 million of these pharmaceutical products from the EU in 2001. Their average total rate of duties and taxes is around 14% (1.9% being customs duties).

- **Countries above the 80th percentile rate for their EU imports**

The next table lists the 20% highest-rate countries based upon the figures collected on EU imported products.²¹

Countries with customs duties rate of above 8% on EU pharmaceutical products considered represent the 20% highest-rate countries and are: Ghana (9%), Bolivia (10%), China (10%), Jamaica (10%), Tanzania (10%), Thailand (10%), Pakistan (12%), Morocco (17%), Nigeria (20%) and India (35%).

80th percentile on Total products (27 HS 6-digit headings)			
Customs duties	VAT	Other Duties	Sum of duties and taxes
8%	18%	4%	25%

ABOVE: Ghana (9%), Bolivia (10%), China (10%), Jamaica (10%), Tanzania (10%), Thailand (10%), Pakistan (12%), Morocco (17%), Nigeria (20%), India (35%)

ABOVE: Georgia (26%), Jamaica (27%), China (29%), Morocco (30%), Bolivia (35%), Nigeria (36%), Pakistan (36%), Sierra Leone (38%), India (60%)

²⁰ Angola, Bangladesh, Benin, Burkina Faso, Central Africa Rep., Chad, Haiti, Lesotho, Liberia, Mali, Niger, Senegal, Sierra Leone, Tanzania, Togo, Uganda, Yemen.

Countries imposing a combined rate of above 25% for total duties and taxes on EU pharmaceutical products represent the 20% highest-rate countries and are: Georgia (26%), Jamaica (27%), China (29%), Morocco (30%), Bolivia (35%), Nigeria (36%), Pakistan (36%), Sierra Leone (38%) and India (60%).

- **Comparison between Public Health Expenditure and duties and taxes collected**

On average, duties and taxes collected on these pharmaceutical products represent 9% of public health expenditure.²²

For LDCs, they represent around 17% of public health expenditure as shown in Table 19 below.

Country	Total duties and taxes collected on EU imports (in K EUR)	Population in millions	Duties and taxes collected per inhabitant on EU imports (in EUR)	Duties and taxes collected per inhabitant (in EUR)	Public Health Expenditures per capita in \$ (World Bank 2001)	Duties and taxes as % of Public Health Expenditure
Angola	3.111	13.134	0,24	0,43		
Bangladesh	9.369	137.439	0,07	0,12	5,79	2,1%
Benin	4.645	6.272	0,74	1,35	6,2	21,7%
Burkina Faso	4.656	11.535	0,40	0,73	2,92	25,1%
Central African Republic	1.876	3.717	0,50	0,92	5,94	15,4%
Chad	1.245	7.885	0,16	0,29	5,38	5,3%
Haiti	721	8.142	0,09	0,16	7,12	2,3%
Lesotho	42	2.035	0,02	0,04		
Liberia	840	2.913	0,29	0,52		
Mali	6.379	11.351	0,56	1,02	5,4	18,9%
Niger	1.171	10.832	0,11	0,20	2,45	8,0%
Senegal	1.586	9.700	0,16	0,30	13,32	2,2%
Sierra Leone	2.724	4.405	0,62	1,12	1,24	90,7%
Tanzania	1.800	36.000	0,05	0,09	3,5	2,6%
Togo	4.659	4.527	1,03	1,87	4,09	45,7%
Uganda	170	23.300	0,01	0,01	5,75	0,2%
Yemen	1.306	18.349	0,07	0,13	7,67	1,7%

Table 19 assumes that the EU accounts for 55% of the value of duties and taxes collected. Data on public health expenditures are for the most recent years available (from 1990 to 1998).

²¹ VAT and other duties are calculated on the value of imports + customs duties.

²² Data on Public Health Expenditure: 2001 World Development Indicators, World Bank. Assumptions: EU imports account for 55% of the total imports and 1€ = 1\$.

ANNEX 1

METHODOLOGY

Applied customs rates have been found for each of the 27 HS numbers. To obtain an average customs rate per country, these rates have been arithmetically added in Section Two, without weighting them. The same process has been used to calculate the average rates of VAT and other duties.

Hence, in this section, in the calculation of average rates, compounds account for 75% of the average rate because they represent 20 HS numbers out of the 27 HS 6-digit headings considered. It is worth indicating that these headings may cover several products.

For most countries in this study, this should not present a problem as either a single rate is used for all pharmaceutical products considered, or the differences between rates are insignificant. Several countries, though, apply different rates depending on the pharmaceutical products (i.e. they differentiate among products on the Essential Drug List), and, thus, there is a risk of over-weighting compounds in Section Two.

Section Three of the study, which is based on an analysis of EU exports, weights the average rates by the relative share of the four categories of products in the countries' imports²³. This gives an estimate of another rate of duties (and another rate of taxes) based upon the relative share of compounds, bulk manufactured medicaments, retail manufactured medicaments and vaccines.

For instance, in a country where different customs rates are applied to HS 293359 (compounds used to produce antiherpes drugs) and to HS 300220 (vaccines), Section Two will not weight the average customs rate by the relative import value of these products, even if the import value of the former is one tenth of the latter. However, Section Three will calculate a weighted average customs rate.

Example:

	Customs rate	Import Value
HS 293359	0%	10
HS 300220	20%	1

⇒

Section Two : Average customs rate : 10%
Section Three : Average customs rate : 1.8%

Hence, the real average rates may lie between the rates estimated in Section Two and the ones estimated in Section Three. This explains why the average rates provided in the Summary fall within a range.

²³ The rates are not weighted within a category (compounds, bulk medicaments, retail medicaments, vaccines). For instance, in Kenya, customs duties on the therapeutic group of “antibacterial drugs”, within the compounds category, vary from 0% (5 products) to 15% (5 products): the study does not weight the rate calculated for “compounds” by the share (in import value) of products at 0% and the share of products at 15%.

It is to be noted, though, that for most countries the rates found in Section Three are consistent with the estimates of Section Two (i.e. a 1.4 percentage point average difference in the calculation of total rate of duties and taxes).

But, for a handful of countries (South Africa, Brazil, India, Mexico and Morocco), it still remains extremely difficult to assess the real rate of duties and taxes applied to the pharmaceutical products considered. In fact, these countries apply a range of different rates for a single HS 6-digit position of a pharmaceutical product (+sub-categories within a same HS 6-digit number), depending on the final use of the imported pharmaceutical product.²⁴

The table below sums up the differences between Section Two and Section Three.

	Calculation of an average rate within one of the four categories for one country	Calculation of an average rate for all the categories of products and for one country	Calculation of an average rate for all countries
Section 2	Arithmetic average	Arithmetic average	Arithmetic average
Section 3	Arithmetic average	Average weighted by the value of imports by category	Average weighted by the value of imports by country and category

²⁴ For instance, India exempts from import duty or allows their import at concessional rates, bulk drugs and their formulations, including drugs on the EDL. Exemption from import duty *may* also cover import by an organization like United Nation International Children’s Emergency Fund (UNICEF). Economic Community of West African States (ECOWAS) Member States also exempt, on request, medicaments for public health. Pakistan exempts raw materials used for the manufacture of drugs from import duties above 10% ad valorem.

ANNEX II

CUSTOMS CLASSIFICATION

Customs Classification of Compounds used in the Treatment of Communicable Diseases

Therapeutic Group	Compounds	HS Classification
Antiamoebic and anti giardiasis drugs	diloxanide, metronidazole	292429, 293329
Antibacterial drugs	amoxicillin, ampicillin, benzathine benzylpenicillin, benzylpenicillin, ceftazidime, ceftriaxone, chloramphenicol, cilastatin, ciprofloxacin, clavulanic acid, clindamycin, cloxacillin, doxycycline, erythromycin, gentamicin, imipenem, metronidazole, nalid	293090, 293329, 293359, 293390, 293490, 293500, 294110, 294130, 294140, 294150, 294190
Antifilarials	diethylcarbamazine, ivermectin, suramin sodium	292429, 293359, 294190
Antifungal drugs	amphotericin B, fluconazole, flucytosine, griseofulvin, itraconazole, ketoconazole, nystatin	293359, 293390, 293490, 294190
Antiherpes	aciclovir	293359
Antileishmaniasis drugs	amphotericin B, meglumine antimoniate, pentamidine	292219, 292520, 294190
Antileprosy drugs	clofazimine, dapsone, rifampicin	293090, 293390, 294190
Antimalarial drugs	artemether, artesunate, chloroquine, doxycycline, mefloquine, primaquine, proguanil, pyrimethamine, sulfadoxine	292520, 293299, 293340, 293359, 293500, 294130
Antipneumocystosis and anti-toxoplasmosis drugs	pentamidine, pyrimethamine, sulfamethoxazole, trimethoprim	292520, 293359, 293500
Antiretrovirals	abacavir, amprenavir, delavirdine, didanosine, efavirenz, indinavir, lamivudine, nelfinavir, nevirapine, ritonavir, saquinavir, stavudine, zalcitabine, zidovudine	293340, 293359, 293390, 293410, 293490, 293500
Antischistosomes and anti-trematode drugs	oxamniquine, praziquantel, triclabendazole	293340, 293359, 293390
Antitrypanosomal drugs	benznidazole, eflornithine, melarsoprol, nifurtimox, pentamidine, suramin sodium	292249, 292429, 292520, 293329, 293490
Antituberculosis drugs	ethambutol, isoniazid, pyrazinamide, rifampicin, streptomycin, thioacetazone	292219, 293090, 293339, 293390, 294120, 294190
Intestinal anthelmintics	albendazole, levamisole, mebendazole, niclosamide, praziquantel, pyrantel	292429, 293359, 293390, 293490
Manufactured Bulk medicaments (antibiotics)	bulk antibiotics preparations, not put up for retail sale	300310, 300320
Manufactured Bulk medicaments (excluding antibiotics)	bulk medicaments other than antibiotics, not put up for retail sale	300390
Manufactured Retail medicaments (antibiotics)	antibiotic preparations, for retail sale	300410, 300420
Manufactured Retail medicaments (excluding antibiotics)	medicaments, other than antibiotics, for retail sale	300490
Vaccines	Vaccines for human medicine	300220