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Liberia's Participation in the ECOWAS Trade Liberalization Scheme

Study of the Impact on Fiscal Revenues

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List of Acronyms

ASYCUDA	Automated System for Customs Data
BIVAC	Bureau Inspection Valuation Assessment Control
CET	Common External Tariff
CIF	Cost, Insurance and Freight
ECOWAS	Economic Community of West African States
ETL	ECOWAS Trade Levy
ETLS	Trade Liberalization Scheme
EU	European Union
GOL	Government of Liberia
GST	General Sales Tax
HS Code	Harmonized System Code
ITC	International Trade Center
L-MEP	Liberia-Monitoring and Evaluation Program
LTPC	Liberia Trade Policy and Customs
NTB	Non-Tariff Barriers
UEMOA	West African Economic and Monetary Union
UN COMTRADE	United Nations Commodity Trade Statistics Database

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1 Introduction

More than 35 years after the initial Economic Community of West African States (ECOWAS) treaty was signed, the 15 countries of ECOWAS have moved into the final stages of the formation of an ECOWAS customs union. This comprises two major elements:

1. The adoption of a common external tariff (CET) to replace the CET of the eight countries that make up the West African Economic and Monetary Union (UEMOA) and the tariff structures of the seven ECOWAS Member States that are not part of UEMOA.
2. The elimination of customs duties within ECOWAS as part of the ECOWAS Trade Liberalization Scheme (ETLS).[1]

The ECOWAS CET will apply to all goods entering the ECOWAS customs territory from outside the region. According to the roadmap agreed upon by the Joint ECOWAS-UEMOA CET Committee at its meeting in Benin in December 2011, the CET and Accompanying and Safeguard Measures are to be submitted to the ECOWAS Council of Ministers for adoption within the year 2012. Finalization of the CET is critical to the conclusion of on-going Economic Partnership Agreement negotiations between the ECOWAS and UEMOA Commissions and the European Union.

Liberia is in the process of deciding whether or not to join the ECOWAS customs union. This will require the country to adopt the CET. But before that can happen, Liberia must agree to participate in the ETLS. Each of these steps has a number of important consequences. These include altering the economic environment facing producers and consumers and the impact of the CET and ETLS on public revenue. The revenue effects of adoption of the CET are currently being studied by the Ministry of Finance. The fiscal impact of participation in the ETLS is the subject of this report.

1.1 Study of the Impact on Fiscal Revenues of the ETLS

The Liberia-Monitoring and Evaluation Program (L-MEP), in collaboration with the Liberia Trade Policy and Customs (LTPC) project and its Government of Liberia (GOL) partners, conducted the Revenue Impact Study. This study provides the GOL with a forecast of the decline in revenue that will result from implementation by the GOL of the ELTS, which will require Liberia to remove customs duties on imported goods exported by other ECOWAS member countries. This should normally result in an immediate loss of revenue currently being collected from customs duties on this trade, but it should also lead to an expansion of trade on which the General Sales Tax (GST) and excise taxes will continue to be collected as the volume of imports increases in response to lower levels of taxation, a form of trade creation.[2] The other loss of

[1] Other elements of this scheme include reduction or elimination of non-tariff barriers (NTB) and harmonization of other taxes on trade such as the value added tax (VAT), Liberia's General Sales Tax (GST), and various excise taxes.

[2] In addition, there will be broader gains in revenue from multiple sources resulting from the positive effects of expanded trade on income and growth.

revenue will result from trade diversion – that is a shift in imports from third countries to ECOWAS partner countries. This shift will occur because of the elimination of customs duties on imports from ECOWAS partners and the continuation of customs duties on imports from third countries. Each of these sources of changes in revenue is discussed in more detail in the analytical framework section below.

Participation in the ETLS is a pre-condition for joining the CET, which for Liberia will have a positive effect on revenue. This study predicts the amount of revenue that will initially be lost from elimination of customs duties on ECOWAS trade, as modified by the effects of trade creation and trade diversion, and compares this with the amount of revenue that will be gained from adopting the CET, based on analysis that is being undertaken by the Tax Policy Unit within the Ministry of Finance. It then looks at policies that might be pursued to mitigate the initial loss in revenue.

2 Approach to Data Collection and Analysis

The general approach to data collection and analysis used in this study was the following:

1. Review of literature on customs union formation and its effect on government fiscal revenues. The analytical framework gleaned from review of literature was then applied to the situation in Liberia in order to identify the particular data needs of the study.
2. Investigation of possible sources of data, as well as the identification of the weaknesses and limitations of these data and assessment of the degree to which these data could be used to respond the needs of the study.
3. Arrangement of a series of exploratory interviews with government officials at the Ministry of Finance and the Ministry of Commerce and Industry in order to understand better what the Government of Liberia (GOL) needed from the study and assessment of the availability of official data from the Customs Statistics Research and Record Unit and the Tax Policy Unit within the Ministry of Finance.[3]
4. Evaluation of data obtained from customs for completeness and consistency. These data were of two types: (1) ASYCUDA computerized system used at the Freeport of Monrovia, the customs post at Robertsfield, and a few other relatively minor entry points within or near Monrovia, and (2) cross-border trade data collected, collated, and transported manually form the border posts to the Customs Statistics Research and Record Unit office in Monrovia. Cross-border trade data were only available by shipment, which required substantial sorting and aggregation in order to be usable for the analysis.
5. Field visits to three major cross-border customs posts in order to see how these posts operate in practice and how cross-border trade data are collected and sent to customs headquarters in Monrovia. These visits involved interviews with all senior customs officials present at each post and with a non-randomized sample of traders and transporters who were present and willing to talk about their experience with customs. Following the return to Monrovia, the customs post at the Freeport of Monrovia was also visited in order to compare current practices there regarding clearance and data collection with those at the cross-border posts.

[3] A complete list of contacted individuals can be found in Annex B of this study.

6. Continuation of sorting and aggregation of the customs data previously obtained from the Ministry of Finance; verification of their reliability; analysis of the aggregated data; and the compilation of tables and graphs for the report. Details of the processing and analysis of the data are presented below.

The rest of this section discusses the analytical framework and the sources and limitations of the data used in the study.

2.1 Analytical Framework

Implementation of the ELTS will involve the suspension of assessment of customs duties on imports from ECOWAS Member States. Customs duties are currently applied to imports but not to domestic production. These are distinguished from value added taxes (or in Liberia the GST) and excise taxes, which are applied to both imports and domestic production and which will continue to be taxed at the border under the ETLS. In addition to customs duties, the ECOWAS Trade Levy (ETL) of 0.5 % will continue to be applied to imports from third countries but not to those from ECOWAS Member States.

2.1.1 Loss in Revenue from Existing Trade with ECOWAS Member States

The first source of lost revenue is that from existing trade with ECOWAS member states. Once the ETLS is implemented, the customs duty should no longer be assessed on[4]:

1. Unprocessed goods -- livestock, fish, plant, or mineral products that have not undergone any industrial transformation.
2. Traditional handicraft products -- articles made by hand with or without the help of tools, instruments or devices that are activated directly by the craftsman, including wooden cooking utensils, fancy goods, small cabinet work, mats, carpets, bed linen, footwear, headgear, prepared feathers, etc.
3. Industrial products of Community origin.

The following conditions are to be fulfilled by the importer of industrial products of Community origin:

1. Goods must originate in member states of the Community.
2. Goods must appear on the list of products annexed to the decisions liberalizing trade in these products.
3. The goods must be accompanied by a certificate of origin and an ECOWAS export declaration form. The certificate of origin requires that either the goods
    a. be produced with raw materials from the Member States comprising at least 60% of the total raw material content, or
    b. consist of products that have undergone substantial processing or work such that this results in a change in their tariff classification, or
    c. are industrial goods produced using foreign raw materials which have received a value-added of at least 30% of ex-factory price of the finished product before tax.

[4] The information in this section is taken from the ECOWAS Web site.

Goods manufactured in free zones or under specific economic regimes involving the suspension or partial or total exemption from customs duties on inputs shall not be considered as originating products.

It is the responsibility of Member States to give approval to their industrial enterprises and products that fulfill the conditions of origin and forward the list of such approved products and related dossiers to the ECOWAS Commission. The ECOWAS Commission is responsible for the distribution of the list of approved products sent by Member States. Once approval is granted and a standardized certificate of origin is obtained, the specified products produced by the firms on the certificate are eligible for duty-free treatment. One problem with this system is that, although a comprehensive form stating information to be provided by the enterprise has been adopted, the data requirements are such that smaller firms may have difficulty meeting these requirements.[5]

In calculating the lost revenue from existing trade, it is difficult to say how many product-enterprises will seek duty-free treatment from Liberia. Even if the number is small at first, it will continue to grow. To be safe and err on the side of overestimating rather than underestimating the revenue loss, we assume that all intra-ECOWAS trade will be subject to duty-free treatment. Thus the loss of revenue from existing trade with ECOWAS Member States is estimated as the total amount of revenue from customs duties that is currently paid by importers. In addition, there is also the loss of the GST on the customs duties that are no longer collected. Although it would appear that, legally, excise taxes should be calculated on the duty-paid value of imported goods,[6] in fact it appears from discussion with customs officials that it is calculated on the CIF value of imports alone, so no further adjustment is made to the revenue loss since the excise taxes remain in place under the ETLS.[7]

2.1.2 Increased Revenue from Expanded Trade

Even as revenue is lost from customs duties on existing trade, revenue will be gained to the extent that trade expands with the decline in tariff barriers. This is because the GST and excise taxes will continue to be charged on imports from Member States. If this were not the case, the tax system would be biased against domestic producers since they would be required to pay these taxes even if they were not assessed on imports.

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[5] These calculations require the following information:
1. Raw materials of Community or foreign origin employed in production;
2. Consumables of foreign or Community origin;
3. Non reusable packaging of Community or foreign origin;
4. Wages and salaries (below or equal to 20%) of cost price
5. Duties and taxes payable by the enterprises
6. Works supplies and external services (not exceeding 10% of cost price) and not directly involved in the production process)
7. Transport and travel;
8. Financial charges (not more than 3% of cost price)
9. Depreciation charges, which will be done on a separate form indicating capital invested and rate and mode of calculation of depreciation
As of early 2012, about 3,200 enterprise-products had been approved for duty-free treatment.

[6] Bureau of Customs and Excise, *Excise Tax Return.*

[7] One other possible correction is that the ASYCUDA data might include some re-exports from third countries that pass through an ECOWAS Member State. This is not likely to be as important as it would be if Liberia were an interior rather than a coastal country.

The degree to which intra-ECOWAS imports into Liberia would increase is a measure of trade creation, which is the extent to which domestic demand for imports from Member States would increase as a result of the decline in prices of these imports after elimination of customs duties.[8] Most formulations of this relationship multiply the percentage change in domestic prices resulting from the elimination of the customs duty times the price elasticity of demand for imports in order to obtain the percentage change in imports. This elasticity is typically estimated at between -1 and -3.[9] Here we use the central value of -2, though sensitivity analysis can be used to look at the effect of introducing alternative values for the elasticity. The percentage change in imports is then multiplied by the initial value of imports to get the absolute change in import value. Multiplying this times the effective GST rate and excise tax rates yields the gain in revenue.

2.1.3 Loss in Revenue from Trade Diversion

Trade diversion occurs when there is a shift in imports from low-cost third countries to high-cost partner countries because of the elimination of customs duties on imports from ECOWAS partners and the continued assessment of customs duties on imports from third countries. The amount of trade diversion can be estimated by multiplying the percentage change in the ratio of domestic prices of imports from each of these exporters by the elasticity of substitution between them, where the percentage change in the ratio of domestic prices equals the customs duty rate divided by one plus the duty rate.[10] This product measures the percentage change in the imports of partner countries relative to those of other countries. Since the increase in imports of the partner country equals the decrease in imports of third countries, we can solve for the absolute change in imports of each of the exporters.[11]

2.1.4 Gain in Revenue from Adoption of the CET

Implementation of the ETLS is a precondition for joining the customs union and applying the CET. Thus in assessing the losses associated with the ETLS, one should weigh these against the gains from the CET. Although detailed calculations of the gains from CET application are not included in this report, it is important to understand from where these gains are derived.

Basically, the ECOWAS CET will replace the customs duty rates currently found in the Liberian tariff schedule. To calculate the impact this will have on revenue, the Tax Policy Unit has simulated the replacement of Liberian rates by the CET for each line of the HS Code, taking care

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[8] Sam Laird and Alexander Yeats, 1986. "The UNCTAD Trade Policy Simulation Model: A Note on the Methodology, Data, and Uses." UNCTAD. The price elasticity of demand for imports equals the percentage change in imports divided by the percentage change in the domestic price of imports.

[9] Arvind Panagariya, Shekhar Sbah, and Deepak Mishra, 1996. "Demand Elasticities in International Trade: Are They Really Low?' World Bank Policy Research Working Paper 1712.

[10] A typical value of the elasticity of substitution is -1.5, though sensitivity analysis can also be used to test the robustness of the conclusions with respect to the value of this parameter. Laird and Yeats, 1986, p. 30.

[11] The domestic price of each import is equal to the CIF price multiplied times one plus the tariff rate. Assuming that the CIF price of imports from each of the exporters is the same, the ratio of the domestic price of the partner to that of other countries P_p/P_o is equal to $(1+t_p)/(1+t_o)$. Following implementation of the ETLS, t_p equals 0 whereas t_o retains the same customs duty rate as before. For example, assuming that the initial customs duty was 25%, the ratio P_p/P_o would change from 1 to 1/1.25, or a decrease of 20%. Multiplying this times the elasticity of substitution -1.5 yields a 30% increase in the ratio of M_p/M_o. The absolute value of the increase in imports of partner countries (equal to the decrease in imports of third countries) will depend on the initial base-period value of imports from each source.

to include revenue losses resulting from duty exemptions. These calculations include the effect that changes in customs duties will have on the General Sales Tax, which is assessed on the CIF price plus the customs duty. Various simulations are constructed to allow for a phased in transition period. During this period imports are also assumed to grow with GDP.

2.2 Data Sources and Their Limitations

The study relies on trade and customs revenue data provided by the Liberian Customs Service for the period 2009 through May of 2012. For the Freeport of Monrovia, the airport at Roberts Field, and a few other sources, the data are available from the ASYCUDA computerized information system, which began to function in 2009. Other data for cross-border trade and the Port of Buchanan are recorded manually and sent to customs headquarters on a monthly basis, where the data are converted to electronic form. The other main source of data is the analytical spreadsheets that have been developed by the Tax Policy Unit in the Ministry of Finance. For each tariff line, these estimate the revenue gains and losses that will result from adoption of the CET, as well as provide alternative scenarios regarding the phasing in of the new tariff schedule. This analysis is only undertaken for imports that are recorded in the ASYCUDA system. The spreadsheets also contain all of the current customs duty rates and percentage losses in revenue due to exemptions.

Further information was obtained by visiting the border posts at Bo Waterside, Ganta, and Loguatou. Here customs officials were interviewed along with traders and transporters to learn how customs procedures are actually applied in the field and what this might imply for the accuracy of the customs data on trade and revenue.

2.2.1 ASYCUDA Data

The ASYCUDA customs data are most comprehensive and are available for each shipment imported into the Freeport of Monrovia and number of other entry points within or near Monrovia. The data include the regime under which the shipment takes place (e.g., import for home use, temporary import, transit), date of declaration, importer, CIF value, quantity, source country, destination country, Harmonized System Codes (HS Code), and the rates, amounts, and amounts lost due to exemptions, and any other special taxes, penalties, or fines. Especially important in this respect is the Petroleum Levy, which is a specific customs duty per gallon on imports, and the Petroleum Sales Tax, which is a specific tax per gallon of sales.

The ASYCUDA data are relatively accurate. They are based either on full documentation plus pre-shipment inspection by BIVAC or on destination inspection jointly by BIVAC and Liberian Customs. Valuation is based on the final invoice, but this can be overruled by BIVAC or the Chief Assessor's valuation. Nevertheless, undervaluation continues to be a problem.

2.2.2 Cross-Border Trade

Liberian Customs compiles trade data from border posts separately from the data available from the ASYCUDA system. These data are recorded manually and have some errors, but they are collected and hand-carried to headquarters at the end of each month, which makes them useful, especially for calculating customs revenue

One major problem with using customs data from cross-border posts to estimate the volume and value of trade is that in many African countries these data tend to under-estimate both this

volume and value. For instance, a recent study on cross border trade between Cameroon and Nigeria suggests that at border crossing points imports may be undervalued by as much as 97%.[12] Similar studies in other parts of Africa indicate that cross border trade is substantially underestimated.[13] One of the reasons is that where there is discretion left to customs concerning how much trade to report, the amount of duty to be paid is often initially determined by the size of shipment and the type of goods in the shipment. This amount is then subject to negotiation between the customs officer and the transporter. Often customs is anxious to avoid charging so much that transporters either go through other customs posts or avoid customs altogether. Once the duty is agreed upon, the customs officer calculates the value and volume of trade that would yield that amount of duty for the type of goods crossing the border. From visits to three major border posts, this appears to be what occurs in Liberia. As a result of this process, the value and quantity of trade are likely to be substantially under-stated in the official customs data.

2.2.3 International Data Sources

In addition to the data generated by Liberian Customs, it is also possible to use data from international sources such as UN COMTRADE. Since Liberia has only recently begun compiling trade data from official sources, these data are not yet available from COMTRADE. Instead we make use of mirror data compiled for Trade Map by the International Trade Center in Geneva. Mirror data are the data of trade partners. For example, Liberian imports are estimated from the export data of its partners. This has one major weakness. It carries the risk of underreporting due to the fact that customs agencies usually monitor imports much more closely than exports, for which they are unlikely to obtain much revenue. Nevertheless, this is a check on the data received from Liberian Customs.

3 Results of the Analysis

Available trade data for Liberia from the International Trade Center (ITC) indicate that the share of imports from ECOWAS in relation to all imports is quite small. From 2001 to 2011, the share of imports from ECOWAS Member States stayed below 1%, except in 2008 when they accounted for 5.3%. The main ECOWAS supplying country is Cote d'Ivoire, followed by Senegal, Nigeria, and Ghana. Among Liberia's top 20 trading partners, the only ECOWAS country is Côte d'Ivoire, with Asia, EU, and North America accounting for the most imports. By far the most important exports from Côte d'Ivoire are petroleum products.

Table 1 presents data from customs on the value of ECOWAS trade and the distribution of revenue from the different taxes assessed on this trade. It is clear from the table that the magnitude of trade that passes through the Freeport of Monrovia, and is recorded on the ASYCUDA system, is far greater than the cross-border trade recorded manually by customs. However, it is important to note that official trade data tends to undervalue cross-border trade by a significant amount, although establishing the precise level of undervaluation or illegal trade was not possible within the Scope of Work for this study. Nevertheless, from casual observations it appears that Liberia's imports through land borders are substantially lower than imports through the Freeport of Monrovia, even when undervaluation and illegal trade are taken

[12] Dirck Stryker and Mukhtar Amin, "Estimating Trade Flows, Describing Trade Relationships, and Identifying Barriers to Cross-Border Trade between Cameroon and Nigeria," Draft Final Report, June 2012.
[13] See, for example, Dirck Stryker and Mukhtar Amin, "Study of Policy Options for Increasing Tanzanian Exports of Maize and Rice (Draft), June 2012.

into account. This reflects the prevailing structure of West African intra-regional trade, which tends to be low relative to external trade. For instance, in 2008 the share of intra-ECOWAS imports accounted for in the official data was just 8% of total ECOWAS imports. In other words, more than 90% of ECOWAS's imports came from outside the region.

The table also shows that taxes on petroleum imports are much more important than the other taxes on trade. These petroleum product taxes comprise the Petroleum Levy, which is a specific tax on the quantity of imports, and the Petroleum Sales Tax, which is a specific tax on the quantity of imports and local production. There is no local production of petroleum products in Liberia, so the tax falls only on imports, but it is theoretically a tax on sales and not on trade. As such, it is similar to the GST in that it is not eliminated under the ETLS, as are customs duties and the Petroleum Levy.

Table 1: Distribution of Revenue Collected from ECOWAS Trade (USD)

	FY 2010-11			FY 2011-12		
	ASYCUDA	X-Border	Total	ASYCUDA	X-Border	Total
Customs Duty Collected	1,274,313	618,058	1,892,370	1,536,657	541,563	2,078,220
Excise Tax Collected	1,940,589	29,714	1,970,303	126,892	44,201	171,092
General Sales Tax	1,574,379	397,447	1,971,826	1,774,919	302,958	2,077,876
Petroleum Levy	10,452,104	2,839,878	13,291,982	11,807,909	-	11,807,909
Petroleum Sales Tax	9,188,911	2,473,736	11,662,647	10,652,153	-	10,652,153
Total Revenue	**24,430,295**	**6,358,833**	**30,789,128**	**25,898,530**	**888,721**	**26,787,251**

Table 1 also shows that the GST and excise taxes together are greater than customs duties. This means the revenue flow from intra-ECOWAS trade will be diminished but will continue to exist after the ETLS goes into effect.

It is useful to look at the breakdown of Liberian imports from ECOWAS Member States by country of origin, as shown in Graph 1 for non-oil imports. What is immediately evident is the dominance of five countries: Ghana, Guinea, Senegal, Côte d'Ivoire, and Nigeria. Two of these are neighboring countries; the others are countries with relatively large manufacturing sectors.

This is before considering petroleum product imports, which are completely confined to Côte d'Ivoire, as shown in Table 2. It is also interesting in this table to note the relative importance of recorded cross-border trade in relation to ASYCUDA trade, which arrives primarily through the Freeport of Monrovia. For example, despite the fact that Ghana does not border Liberia, one-half of its recorded trade arrives overland. Aside from petroleum products, Côte d'Ivoire has a heavy preponderance of cross-border trade. The same holds even more for Nigeria. These results do not take into account the undervaluation of trade across these borders.

Graph 1: Liberia's Non-Petroleum Imports from ECOWAS Countries

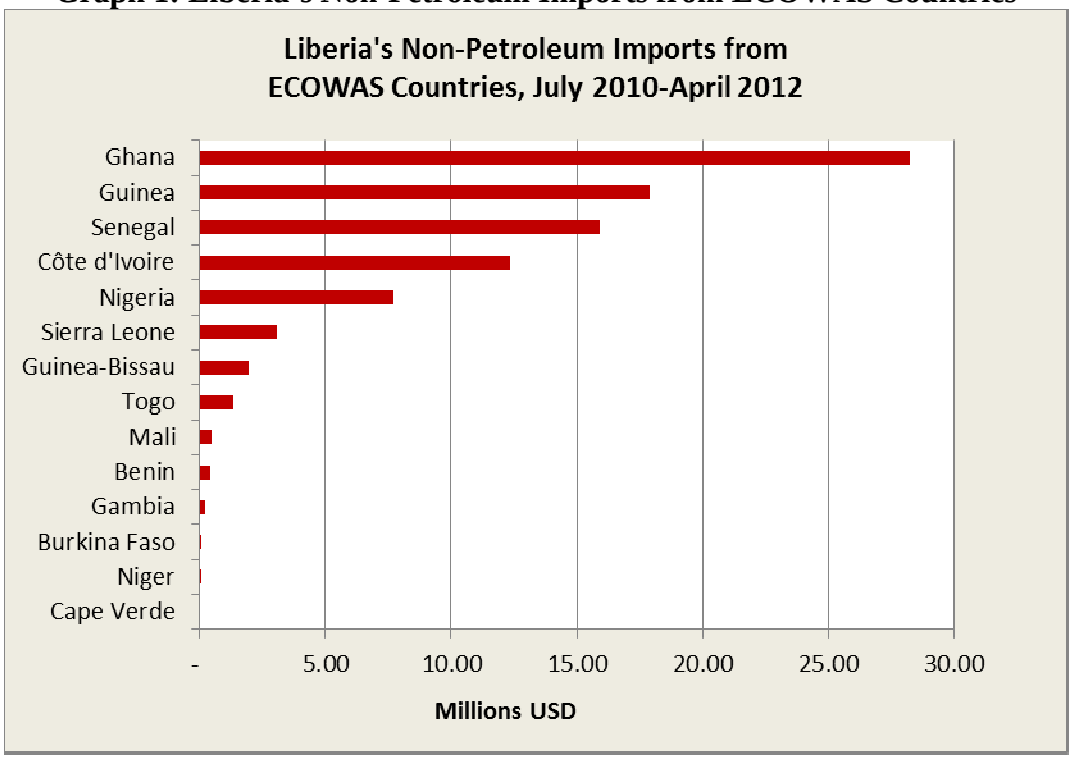


Table 2: Imports into Liberia from ECOWAS Member States, 2010-11

Country	Non-Petroleum Imports		Petroleum Imports	Total
	ASYCUDA	X-Border	ASYCUDA	
Burkina Faso	19,651	-	-	19,651
Gambia	6,896,209	-	-	6,896,209
Benin	59,950	-	-	59,950
Mali	1,794,590	334,423	-	2,129,013
Togo	6,160,311	25,200	-	6,185,511
Guinea-Bissau	4,741	-	-	4,741
Sierra Leone	1,204,790	412,727	-	1,617,517
Nigeria	1,241	493,334	-	494,576
Côte d'Ivoire	591,440	2,873,286	242,870,192	246,334,918
Senegal	1,154,042	90,805	-	1,244,847
Guinea	3,181,930	2,907,544	-	6,089,474
Ghana	8,420,992	8,744,547	-	17,165,538

3.1 Loss in Revenue from Existing Trade with ECOWAS Member States

Table 3 presents the value of imports declared in the custom data for Fiscal Years 2010-2011 and 2011-2012 (through April) that originate in the ECOWAS countries, as well as the different sources of revenue that will be lost with implementation of the ETLS. The table is divided into two parts: the first comprises the non-oil component of trade; the second consists of petroleum

product imports. Both the value of imports and the revenue that will be lost with implementation of the ETLS are much more important for petroleum products than for non-petroleum.

Table 3: Revenue Losses from Existing ECOWAS Trade

	FY 2010-11			FY 2011-12		
	ASYCUDA	X-Border	Total	ASYCUDA	X-Border	Total
Official Imports (non-oil)	30,178,702	15,881,866	46,060,568	32,410,035	11,255,190	43,665,225
Total Duty Collected	1,274,313	618,058	1,892,370	1,536,657	541,563	2,078,220
GST on Duty Portion	89,202	43,264	132,466	107,566	37,909	145,475
Revenue Loss after ETLS Adoption	**1,363,515**	**661,322**	**2,024,836**	**1,644,223**	**579,473**	**2,223,696**
Effective Duty Rate	*4.22%*	*3.89%*	*4.11%*	*4.74%*	*4.8%*	*4.76%*
Official Imports (Petroleum Products)	242,870,192	-	242,870,192	287,081,007	-	287,081,007
Total petroleum levy collected	10,452,104	2,839,433	13,291,537	11,807,909	-	11,807,909
Petroleum sales tax collected	9,188,911	2,473,736	11,662,647	10,652,153	-	10,652,153
Revenue Loss after ETLS Adoption	**10,452,104**	**2,839,433**	**13,291,537**	**11,807,909**	-	**11,807,909**
Direct Revenue Loss	**11,815,618**	**3,500,755**	**15,316,374**	**13,452,132**	**579,473**	**14,031,604**

It is evident from the non-oil portion of the table that by far the most important loss is foregone customs duty revenue, which averages about 4% to 5% of the CIF value of imports. One should keep in mind, as noted earlier, that the value of actual cross-border trade is almost certainly greater than that indicated by Official Imports in Table 3, though by how much is hard to say. In any event, this will not in itself change the amount of loss that is estimated since no duty was being captured from this source in the first place.

The most important loss by far from existing ECOWAS trade is that of the Petroleum Levy. As shown in Table 3, this amounts to more than $13 million USD, compared with the loss of customs duty on non-oil trade of about $2 million USD. To this must be added the loss of Petroleum Levy assessed on third-country imports that are diverted to ECOWAS partner countries by the elimination of the customs duty on imports from the latter source – a loss that is estimated below.

3.2 Increased Revenue from Expanded Trade

Because of the decline in taxation associated with the elimination of customs duties under the ETLS, there will be some expansion of trade. This will give rise to increased revenue from the GST, excise taxes, and the Petroleum Sales Tax. Table 4 presents the results of this analysis assuming that the percentage reduction in price equals the loss of revenue from the customs duty and Petroleum Levy divided by the value of imports inclusive of these duties before the reduction takes place. This percentage is then multiplied by the price elasticity of import demand and the initial CIF value of imports to obtain the increase in imports. This increase is then multiplied by the relevant effective sales tax and excise tax rates to obtain the increase in revenue resulting from the expansion of trade.

Table 4: Increased Revenue from Expanded Trade (using 2010-11 as the base year)

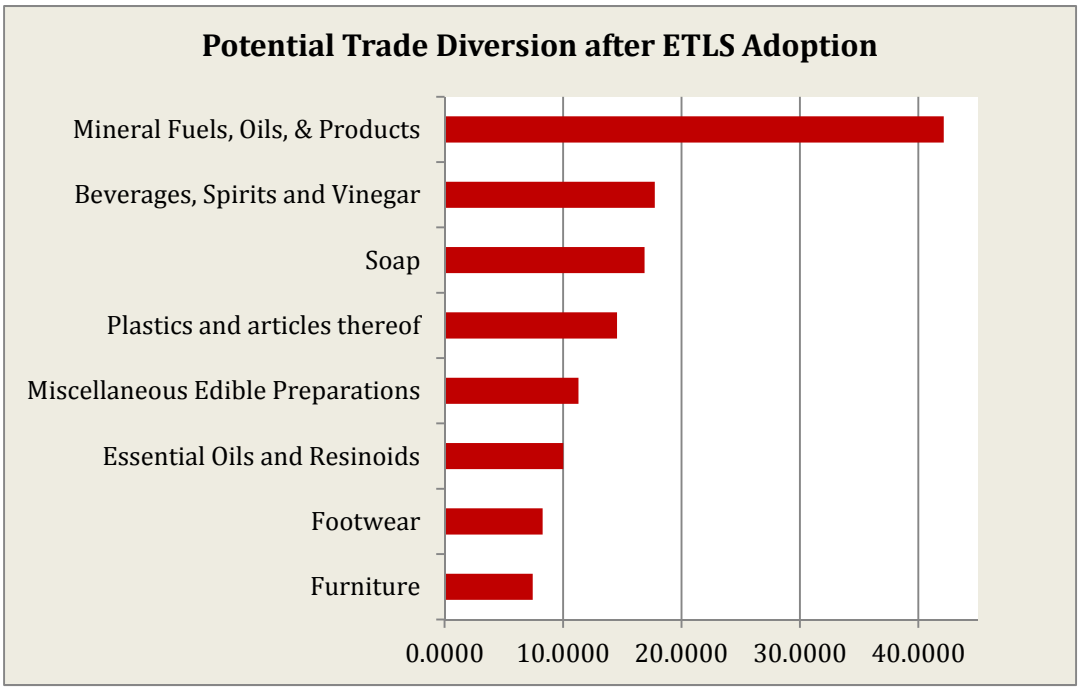
	Current Imports (USD)	Loss of Customs Duty (USD)	% Reduction in Price (%)	Price Elasticity of Import Demand	Increase in Imports (USD)	Increase in Sales Tax (USD)	Increase in Excise Taxes (USD)	Total Increase in Revenue (USD)
Official Imports (non-oil)	46,060,568	2,024,836	-4.21%	-2	3,879,144	166,064	165,936	331,999
Official Imports (petroleum)	242,870,192	13,291,537	-5.19%	-2	25,203,751	1,210,286		1,210,286
TOTAL	**288,930,760**	**15,316,374**			**29,082,895**	**1,376,350**	**165,936**	**1,542,286**

Table 4 shows that the increase in revenue resulting from the expansion of trade amounts to a little over $1.5 million USD, or about 10% of the total revenue loss. Most of this is accounted for by the gain in revenue from the Petroleum Sales Tax assessed on the increased imports.

3.3 Loss in Revenue from Trade Diversion

Estimating the loss in revenue from trade diversion requires data on the value of imports and customs duties from ECOWAS and third countries. These data were organized by 2-digit HS code to look at the distribution of losses across sectors. As shown in the earlier analysis, the change in relative prices of the imports from ECOWAS members is equal to their lost revenue divided by the domestic price of imports before the duty is eliminated. This is multiplied by the elasticity of substitution and a weighting factor for the relative importance of imports from the two sources.

Graph 2: Potential Trade Diversion after ETLS Adoption



In summary, trade diversion results in about $182,970 USD of lost revenue, $42,000 USD of which comes from the petroleum products sector.[14] The distribution of revenue losses for some of the more important sectors is shown in Graph 2. In general, the effect of trade diversion on revenues is not very great, in part because Liberia's tariffs are relatively low, so their elimination does not have a big price effect. Another reason is that the relative volume of imports from ECOWAS relative to third countries is quite low to begin with. The full table of imports, duties,

[14] This may be something of an anomaly since Liberia imports only about 10 million USD worth of petroleum products from third countries compared with 243 million USD from ECOWAS, mostly C6te d'Ivoire, and third countries pay customs duties rather than the Petroleum Levy. The degree of substitutability among these products may be low so that trade diversion resulting from elimination of the Petroleum Levy may be substantially overestimated.

and calculations of the value of trade diverted away from third countries, along with the revenue lost, is shown by two-digit HS tariff line in Annex A.

3.4 Gain in Revenue from Adoption of the CET

The Tax Policy Unit in the Ministry of Finance has calculated the changes in revenue that will result from replacing the existing Liberian tariff rate schedule with the ECOWAS common external tariff. The CET will only apply to third countries, not to the ECOWAS Member States. Without exemptions, the duty collected in Liberia in 2010-11would have been roughly $40 million USD; with exemptions the actual amount collected was a little over $34 million USD. If the CET had been fully implemented in that year, customs duties would have yielded $67 million USD before exemptions and $53 million USD taking exemptions into account. The net gain would have been $27 million USD before and $19 million USD after exemptions. Since the calculations in this report are based on effective rates of duty after exemptions, the latter figure is most relevant for comparisons.

4 Findings and Conclusions

The results of this study are summarized in Table 5, which shows the amount of revenue that is expected to be gained or lost in the first year or so for each of the reasons discussed in the report.

Table 5: Summary Comparison of Gains and Losses Associated with the ETLS, with Reference to Base Year 2010-11

Type of Tax	Without ETLS	With ETLS	Revenue Loss	Expansion of Imports	Trade Diversion	Total	Application of CET
Customs Duty ECOWAS Trade					(182,970)	(182,970)	18,570,653
Non-Oil	1,892,370	-	(1,892,370)			(1,892,370)	
Petroleum Products	13,291,982	-	(13,291,982)			(13,291,982)	
Sales Tas							
GST	1,971,826	1,839,360	(132,466)	166,064		33,598	
Petroleum Sales Tax	11,662,647	11,662,647	-	1,210,286		1,210,286	
Excise Taxes	1,970,303	1,970,303	-	165,936		165,936	
TOTAL	**30,789,128**	**15,472,310**	**(15,316,818)**	**1,542,286**	**(182,970)**	**(13,957,503)**	**18,570,653**

We see from this table that the initial losses from implementation of the ETLS are confined to the customs duties currently being paid. Of these, by far the most important is the Petroleum Levy on petroleum products exported from Côte d'Ivoire. This accounts for over $13 million USD. Almost another $2 million USD results from customs duties paid on imports from a variety of ECOWAS countries.

As a result of the lowering of prices on ECOWAS products because of the elimination of the customs duty, there will also be subsequent expansion of imports from ECOWAS Member States, or trade creation, as well as trade diversion from third country imports to ECOWAS member country imports. Trade creation occurs because, although the increased trade is not subject to customs duty, it is subject to the payment of sales and excise taxes. These payments amount to about 10% of the initial revenue loss, most of this from the Petroleum Sales Tax. In addition, there is the loss of revenue from trade diversion, but this is quite small compared with the other gains and losses – less than $200,000 USD.

The overall net effect is a loss of almost $14 million USD, which is about 5% of total revenue from taxation in Liberia. This may be compared with the gain from adoption of the CET, which is estimated at almost $19 million USD. However, because the adoption of the CET will raise prices to consumers and may have some effect on inflation, it is likely to be phased in over a transition period, during which there would be net fiscal losses from implementation of the ETLS and CET.

5 Recommendations

The most important recommendation coming out of this study is that the fiscal losses associated with the implementation of the ETLS are not sufficiently great that it should not be implemented. They will amount initially to no more than 5% of total tax revenue and will be offset over the following two or three years by the revenue gain from adoption of the CET. Furthermore, most of the revenue losses will occur because the Petroleum Levy will no longer apply to imports of petroleum products from ECOWAS countries, principally Côte d'Ivoire. However, the ETLS calls for the elimination of customs duties, not sales or value added taxes, which are assessed equally on imports and domestic production. Even though Liberia does not produce any significant amount of petroleum products locally, there is no reason why it could not raise the Petroleum Sales Tax to compensate for a loss in revenue from the elimination of the Petroleum Levy on imports of petroleum products from ECOWAS Member States without causing any further rise in petroleum prices.

It is important to keep in mind the longer term goals of the ETLS and CET. These are to create a West African Customs Union that will provide for the expansion of intra-regional trade and the exploitation of economies of scale in production within a wider regional market. Liberia is currently focused on developing its rich natural resource base and assuring food security for its population. But the day will come when this path to economic growth will begin to be exhausted. At this point, further development will involve restructuring the economy and a greater role for the production of manufactured goods. The West African customs union will then provide an increasingly important market. If Liberia is not part of this market from the birth of that customs union, joining it will be much more difficult.

Annex A: Table of Trade Diversion Revenue Losses

HS-2 Digit	Description	ECOWAS Imports from	Third Countries Imports from	ECOWAS Customs Duty	Third Countries Customs Duty	in Relative Price % Decrease	Substitution Elasticity of	Decline in Third Countries Imports from	Revenue Loss of
1	Live Animals	659,027	-	18,250	-	0.0269	1.5	-	-
2	Meat and Edible Meat Offal	5,400	29,297,737	332	2,002,407	0.0579	1.5	469	32
3	Fish and Crustaceans, Molluscs and other Aquati	4,806,639	11,419,990	121,057	272,536	0.0246	1.5	124,657	2,975
4	Birds" Eggs; Natural Honey; Edible Products of Ar	938,615	16,101,814	47,799	895,947	0.0485	1.5	64,466	3,587
5	Products of Animal Origin, not elsewhere specifi	604	453,064	78	23,632	0.1144	1.5	103	5
6	Live trees and other Plants; Bulb, Roots and the l	300	118,936	32	40	0.0964	1.5	43	0
7	Edible Vegetables and Certain Roots and Tubers	164,948	59,188,482	12,113	257,745	0.0684	1.5	16,879	74
8	Edible Fruit and Nuts; Peel of Citrus Fruit or Melo	13,012	1,977,535	984	36,618	0.0703	1.5	1,363	25
9	Coffee, Tea, Mate and Spices	81,102	864,062	12,465	104,374	0.1332	1.5	14,816	1,790
10	Cereals	913,152	110,227,101	4,189	26,416	0.0046	1.5	6,203	1
11	Products of the Milling Industry; Malt; Starches; I	309,364	9,112,610	14,299	300,438	0.0442	1.5	19,828	654
12	Oil Seeds and Oleaginous Fruits; Miscellaneous (	404,159	380,282	22,817	665	0.0534	1.5	15,705	27
13	Lac; Gums, Resins and other Vegetable Saps and I	78	2,142	1	320	0.0127	1.5	1	0
14	Vegetable Plaiting Materials; Vegetable Product	5,081	80,932	4	177	0.0008	1.5	6	0
15	Animal or Vegetable Fats and Oils and their Clea	3,390	17,914,414	724	846,718	0.1760	1.5	895	42
16	Preparations of Meat, of Fish or of Crustaceans, M	259	4,698,018	43	485,378	0.1424	1.5	55	6
17	Sugars and Sugar Confectionery	43,233	13,397,786	8,812	2,748,371	0.1693	1.5	10,944	2,245
18	Cocoa and Cocoa Preparations	263,795	570,546	39,707	91,003	0.1308	1.5	35,401	5,647
19	Preparations of Cereals, Flour, Starch or Milk; Pas	358,908	10,519,956	33,324	743,985	0.0850	1.5	44,230	3,128
20	Preparations of Vegetables, Fruit, Nuts or Other	30,894	4,094,983	2,672	597,613	0.0796	1.5	3,661	534
21	Miscellaneous Edible Preparations:	1,705,118	11,862,700	49,058	2,143,197	0.0280	1.5	62,540	11,299
22	Beverages, Spirits and Vinegar:	213,077	15,173,885	59,703	3,903,486	0.2189	1.5	68,985	17,746
23	Residues and Waste from the Food Industries; Pr	6,033	188,051	219	1,123	0.0350	1.5	307	2
24	Tobacco and Manufactured Tobacco Substitutes:	6,495,251	2,183,804	325,756	38,806	0.0478	1.5	117,077	2,080
25	Salt; Sulphur; Earths & Stone; Plastering Material	108,209	29,546,302	9,790	2,469,396	0.0830	1.5	13,418	1,121
26	Ores, Slag and Ash	333	100,785	37	9	0.1000	1.5	50	0
27	Mineral Fuels, Mineral Oils and Products: of thei	243,834,964	10,017,704	10,547,817	561,956	0.0415	1.5	598,479	33,572
28	Inorganic Chemicals; Organic or Inorganic Compo	178,375	3,832,110	9,000	102,191	0.0480	1.5	12,280	327
29	Organic Chemicals	5,330	3,834,838	273	49,207	0.0487	1.5	389	5
30	Pharmaceutical Products	139,621	14,925,177	3,527	151,412	0.0246	1.5	5,112	52
31	Fertilisers	393,659	1,910,281	1,351	557	0.0034	1.5	1,675	0
32	Tanning or Dyeing Extracts; Tannins and their De	38,264	2,399,011	17,593	188,786	0.3150	1.5	17,794	1,400
33	Essential Oils and Resinoids; Perfumery Cosmeti	664,298	6,040,925	107,776	483,224	0.1396	1.5	125,316	10,024
34	Soap: Organic Surface-Active Agents,Washing Pre	250,307	6,383,147	55,934	1,632,946	0.1826	1.5	65,989	16,881
35	Albuminoidal substances; Modified Starches; Glu	11,826	376,316	3,245	26,762	0.2153	1.5	3,703	263
36	Explosives; Pyrotechnic products; Matches; Pyro	349,846	4,108,071	5,070	39,564	0.0143	1.5	6,908	67
37	Photographic or Cinematographic Goods	455	138,562	31	20,468	0.0647	1.5	44	6
38	Miscellaneous Chemical Products	52,591	4,478,050	1,718	131,133	0.0316	1.5	2,466	72
39	Plastics and articles thereof:	2,334,281	19,979,302	238,968	998,758	0.0929	1.5	291,148	14,554
40	Rubber and Articles thereof	4,158,050	9,939,624	37,077	516,609	0.0088	1.5	38,865	2,020
41	Raw Hides and Skins (other than furskins) and lea	38,523	2,069	1,210	364	0.0305	1.5	90	16
42	Articles of leather; saddlery and harness; travel g	9,015	1,195,089	1,972	225,113	0.1795	1.5	2,409	454
43	Furskins and artificial fur; manufactures thereof	8,460	5,607	279	1,242	0.0319	1.5	161	36
44	Wood and Articles of Wood; Wood Charcoal	1,005,606	3,868,151	20,648	217,318	0.0201	1.5	24,087	1,353
45	Cork and Articles of Cork	210	25,099	26	251	0.1102	1.5	34	0
46	Manufactures of Straw, of esparto or of other pla	3,258	205,526	435	597	0.1178	1.5	567	2
47	Pulp of wood or of other fibrous cellulosic mater	432	207,654	473	10,383	0.5227	1.5	338	17
48	Paper and paperboard; articles of Paper pulp, of	137,479	7,682,979	15,086	680,935	0.0989	1.5	20,033	1,775
49	Printed books, Newspapers, Pictures and other p	189,818	6,642,703	6,066	21,401	0.0310	1.5	8,573	28
50	Silk	111	463	6	9	0.0513	1.5	7	0
51	Wool, fine or coarse animal hair, horse hair yarn	86	213	8	21	0.0851	1.5	8	1
52	Cotton	21,528	909,592	2,122	80,814	0.0897	1.5	2,830	251
53	Other vegetable textile fibres; paper yarn and w	-	16,347	-	796	-	1.5	-	-
54	Man-made Filaments	1,172	119,466	122	11,890	0.0941	1.5	164	16
55	Man-made staple fibres	16,476	714,916	1,242	55,027	0.0701	1.5	1,693	130
56	Wadding, felt and nonwovens; special yarns; twi	1,702	6,502,502	222	22,424	0.1152	1.5	294	1
57	Carpets and other textile floor coverings	1,491	546,445	241	60,169	0.1389	1.5	310	34
58	Special woven fabrics; tufted textile fabrics; lace	11,578	87,178	2,061	4,647	0.1511	1.5	2,317	123
59	Impregnated, coated, covered or laminated texti	1,152	92,557	186	11,566	0.1389	1.5	237	30
60	Knitted or crocheted fabrics	1,119	5,844	199	876	0.1510	1.5	213	32
61	Articles of apparel and clothing accessories, knit	102,935	1,655,020	19,785	203,836	0.1612	1.5	23,435	2,886
62	Articles of apparel and clothing accessories not k	52,722	1,256,861	9,881	194,791	0.1578	1.5	11,980	1,857
63	Other made up textile articles; sets; worn clothir	63,731	22,020,923	8,044	1,353,877	0.1121	1.5	10,682	657
64	Footwear, gaiters and the like; parts of such artic	308,722	4,461,434	45,969	657,802	0.1296	1.5	56,133	8,276
65	Headgear and parts thereof	5,741	417,153	829	26,851	0.1262	1.5	1,072	69
66	Umbrellas, sun umbrellas, walking sticks, seat-st	204	383,589	37	53,986	0.1517	1.5	46	7
67	Prepared feathers and down and articles made o	108,528	82,247	18,024	11,557	0.1424	1.5	9,996	1,405
68	Articles of stone, plaster, cement, asbestos, mica	18,056	3,706,240	1,469	57,366	0.0752	1.5	2,027	31
69	Ceramic Products	36,858	5,725,635	2,765	389,907	0.0698	1.5	3,833	261
70	Glass and Glassware	458,909	3,612,791	34,533	75,412	0.0700	1.5	42,745	892

HS-2 Digit	Description	ECOWAS Imports from	Third Countries Imports from	ECOWAS Customs Duty	Third Countries Customs Duty	in Relative Price % Decrease	Substitution Elasticity of	Decline in Third Countries Imports from	Revenue Loss of
71	Natural or cultured pearls, precious or semi-prec	8,151	27,725	1,575	5,969	0.1619	1.5	1,530	329
72	Iron and Steel	3,394,231	25,002,184	34,932	706,974	0.0102	1.5	45,664	1,291
73	Articles of Iron or Steel	170,524	152,697,216	8,190	590,555	0.0458	1.5	11,710	45
74	Copper and articles thereof	10,065	1,343,676	529	4,016	0.0499	1.5	748	2
75	Nickel and Articles thereof	201	320	12	23	0.0563	1.5	10	1
76	Aluminium and Articles thereof	39,672	2,327,967	2,648	46,014	0.0626	1.5	3,661	72
77	Reserved for Possible Future Use	3,351	-	353	-	0.0953	1.5	-	-
78	Lead and Articles thereof	1	141	2	4	0.6667	1.5	1	0
79	Zinc and Articles thereof	-	133,768	-	2,512	-	1.5	-	-
80	Tin and Articles thereof	1,365	562	205	702	0.1306	1.5	78	97
81	Other Base metals; Cermets articles thereof	1,066	434	204	22	0.1606	1.5	74	4
82	Tools, implements, cutlery, spoons and forks, of	238,676	3,286,415	11,422	114,096	0.0457	1.5	15,244	529
83	Miscellaneous articles of base metal	24,096	6,229,697	1,282	203,578	0.0505	1.5	1,818	59
84	Nuclear reactors, boilers, machinery and mechar	1,798,765	74,238,987	56,730	1,945,865	0.0306	1.5	80,542	2,111
85	Electrical machinery and equipment and parts th	3,664,804	52,363,742	54,189	2,754,614	0.0146	1.5	74,860	3,938
86	Railway or tramway locomotives, rolling-stock ar	2,719	746,118	95	2,399	0.0338	1.5	137	0
87	Vehicles other than railway or tramway rolling st	3,317,415	141,512,241	98,396	4,413,259	0.0288	1.5	140,059	4,368
88	Aircraft, Spacecraft and parts thereof	1,870	271,444	101	67	0.0512	1.5	143	0
89	Ships, Boats and Floating Structures	3,408	3,302,560	187	13,491	0.0520	1.5	266	1
90	Optical, Photographic, Cinematographic, measur	84,413	4,191,983	722	110,915	0.0085	1.5	1,053	28
91	Clocks and watches and parts thereof	5,929	175,172	353	10,433	0.0562	1.5	483	29
92	Musical instruments; parts and accessories or suc	3,365	127,338	796	12,445	0.1914	1.5	941	92
93	Arms and Ammunition; Parts and Accessories the	-	40,899	-	620	-	1.5	-	-
94	Furniture: Bedding, Mattresses, Mattress suppor	204,685	7,810,663	46,575	1,048,110	0.1854	1.5	55,459	7,442
95	Toys, Games and Sports Requisites; Parts and Acc	22,512	872,590	3,254	179,144	0.1263	1.5	4,158	854
96	Miscellaneous manufactured articles	11,887	1,259,005	1,980	100,165	0.1428	1.5	2,522	201
	TOTAL	285,560,642	987,954,176	12,332,314	39,591,195			2,459,746	174,403

Annex B: List of Persons Contacted

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- William L. Buku, Assistant Commissioner for Operational Policy & International Relations, Bureau of Customs and Excise (0886-520-392/0775-20392)
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- Alphonso J. Saiewane, Director, Customs Statistics Research and Record (0886-570-887)
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- Peter J. Solo, Chief Assessor, Free Port Collectorate, Monrovia (0886-534-861)
- Gbelee M. Dennis, Customs Office Senior Collector, Bo-Waterside Post (0886-552-362)
- Henry Bedell, Customs Office Senior Collector, Loguatuo Post (0886-573-408)
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