

A GENDER WELFARE IMPACT OF THE ECOWAS COMMON EXTERNAL TARIFFS ON HOUSEHOLDS IN TOGO

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Abstract

This paper evaluates the welfare outcomes of implementing the ECOWAS common external tariff in Togo, with a specific focus on gender issue. Using the survey data QUIBB 2015, we perform an induced price analysis and a non-parametric regression. We find that the share of household expenditure allocated for food declines as the income level increases, in both urban and rural areas and for both male- and female-headed households. The results also denote that ECOWAS-CET has reduced the welfare of consumer households in Togo, especially for self-employed farmers. As supported by the theory, consumer households living closer to the port city observe a smaller loss in the welfare. Our analysis shows that households in Lomé (where the distance from the port city is zero) experienced the lowest loss in the welfare while households in the Savanes region (at 617.7 kilometers from the port) have the biggest loss score. In Togo, government social transfer is pro-poor because it leaves the poor better off, but it benefits more to male-headed households.

Keywords: food consumption, gender analysis, tariffs, household expenditure, West Africa

JEL Codes: F15, H31, I31, I32, J16

1. Introduction

Togo is a member of the West African Economic and Monetary Union (WAEMU)¹ and the Economic Community of West African States (ECOWAS)², which represent two different regional integration levels. In 2013, the country's customs revenue as a share of tax revenue was 23.2 percent. Since January 2000, the countries in WAEMU implemented the Common External Tariffs (WAEMU-CET) to establish a fine balance between the member countries with divergent interests on certain products. However, WAEMU-CET has been criticized for not ensuring proper protection to domestic production sector. ECOWAS is creating a common market with a common external tariff and common trade policies. Put into service in January 2015, the ECOWAS Common External Tariffs (ECOWAS-CET) is essentially based on that of the WAEMU. This is because WAEMU has long experience as an operational customs union. ECOWAS-CET aims to develop a genuine community market. The ECOWAS-CET is expected to promote and increase domestic production. However, over 90% of tariff lines of the new TEC have the same tariff rates as the WAEMU,

in force since 2000. Therefore, it is important to emphasize the effects of tariff changes of cash crops and food products on households' welfare.

We evaluate the welfare outcomes of Togo's implementation of the ECOWAS-CET, with particular focus on gender issue. As stated by UN Women³, gender is defined as: "the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between women and those between men". The Togolese economy is dependent on the agriculture (including livestock and fishery) which contributes to nearly 40 percent of the nominal GDP. Agriculture is the main source of income and jobs for 63 percent of the population, as well as an important part of merchandises export revenue. According to the Trade Policy Review of Togo in 2006, farmers form the essential part of the poor population. Consequently, rural development is one pillar of the Poverty Reduction Strategy Paper (DSRP) and the Strategy for Boosting Growth and Promoting Employment (SCAPE), which are the reference documents on economic policy in the country. Regarding food crops, it includes cereals (maize, millet, sorghum and paddy rice), tubers (yams, cassava, sweet potato and taro) and legumes (beans, groundnut and the voandzou). Maize is the main crop in Togo, representing roughly about 40 percent of the country's food production. The national cereal production meets the food needs of the population, except for rice, which increase in production is a priority in the agricultural policy in the country. The major export crops are cotton (nearly 17 percent of revenue from the export of goods) and, to a lesser extent, coffee and cocoa.

Considering the gender concept in sectoral policies remains a key challenge for policymakers, especially in developing countries and even more in least developed ones. Indeed, the information obtained after analyzing the survey data QUIBB 2006 and 2011 shows that both men and women are involved in the agricultural production. For example, of 206 thousand farmers, almost 19 thousand are women in the food production sector against only 281 women growers of cash crops.

Households must choose between local- and imported- food products. Thus, the price of food products remains the main indicator in selecting a speculation. If the tariff on imported products increases, consumers' household will shift away from imported products. Therefore, it is necessary to highlight the effects of tariff changes on consumers' welfare.

Togo, like all ECOWAS countries, has operated a trade reform, with the adoption of the Common External Tariff (ECOWAS CET) in January 2015. In terms of custom tariff, the Community code is the WAEMU Common External Tariff (WAEMU CET), which is naturally in force, and therefore regulates the rice imports in Togo. Using the nomenclature of WAEMU CET, rice (rice paddy) is in category 1 and therefore taxable at 5 percent. Whereas an increase in the tariff of rice was expected, rice remains in the same category in ECOWAS CET. Thus, rice imports will still be taxed at 5 percent. At the same time, some important goods, such as fresh or chilled tomatoes, fresh and frozen meat and yoghurt will be subject to high tariffs (35%).

This trade reform in the agricultural sector would affect households, and particularly women, through the change in the consumer price. Thus, the effects of the change to ECOWAS CET on individuals' welfare, according to their gender, should be investigated. Furthermore, it should be emphasized that rice consumption in the Togolese households is significant. The domestic consumption increased from 61.200 tons to 74.000 tons between 2000 and 2008, respectively. The domestic production does not fully cover the domestic demand. The statistics reveal the domestic rice production covers less than half of the domestic needs. The shortfall is met by imports. From this, it follows that the observed change in the tariff line will affect household consumption expenditures.

The central research question is: "what are the effects of the shift from WAEMU CET to ECOWAS CET on consumer household gender welfare in Togo?". It gives insights into the gender implications of trade reforms. The aim of this paper is to answer the following

questions: First, what is the impact of ECOWAS CET on consumer households' welfare? Second, how does the distance between the households' area of residence and the port city influence their well-being after the tariff change? Last, do remittances received from government attenuate the effect of ECOWAS CET on households' welfare?

In this paper, our methodological approach uses the 2015 QUIBB survey data that portrays households' socioeconomic characteristics. The approach is threefold. First, we find the effect of the induced changes in prices the transition to the ECOWAS CET on household welfare on the gender perspective. Second, we run a nonparametric estimation to analyze the effects of changes in prices on the welfare, considering the distance between the households' region of residence and the port city. Third, we investigate the impact of the remittances received by households after the implementation of the ECOWAS-CET with a non-parametric regression.

The rest of the paper is organized as follows: the overview discusses salient issues of common external tariffs and welfare in TOGO. Section 3 provides a review of the existing literature while Section 4 presents the data, model specification and methodology. Section 5 reports the empirical results and their interpretation. Section 6 concludes.

2. Overview of TEC and gender Welfare trends in TOGO

2.1 Gender Welfare trends in TOGO

In Togo, the poverty level is higher among households headed by independent farmers. Indeed, the prevalence of poverty in this group was 79.5 percent in 2006 and 72.6 in 2015. (QUIBB 2006, 2011, 2015). As depicted in Table 1, the poverty incidence for households headed by men is lower than for those headed by women, 57.5% and 54.6% respectively in 2015. Moreover, the poverty of households headed by a woman has increased between 2011 and 2015 (from 54.3% percent to 57.4percent).

Table 1. Prevalence of Poverty by Household-Head Gender (In Percentage)

Year	Male	Female
2006	62.9	56.5
2011	59.6	54.3
2015	54.5	57.4

Source: (QUIBB 2006, 2011, 2015).

2.2 Common External Tariff

A Common External tariff suggests that all goods entering the customs territory of any country of the union will be charged the same rate of customs duty. With the introduction of the ECOWAS-CET, the zone, previously in the free trade level, entered the customs union level. The new tariff system could improve trade between Togo and its West African non-WAEMU neighbors.

The WAEMU-CET has four tariff ranges: Category 0 for Essential Social Goods; Category 1 for Goods of Primary Necessity' Raw Materials and Specific Inputs; Category 2 for Intermediate Goods and Category 3 for Final Consumption Goods. Category 0 has a 0% duty rate, Category 1 at 5%, Category 2 at 10% and Category 3 at 20%. In addition to these four tariff ranges, ECOWAS-CET has a fifth band range described as "specific goods for economic development" with a tariff band of 35%.

Table 2 depicts the tariff rate for some specific products. Import tariffs of final consumer goods such as flour (corn, millet and sorghum), cassava roots and yams are unchanged.

Onions, tomatoes, and meat will be subject to a tariff of 35% because they are in the fifth band. These products are important for domestic production. The average tariff rates of WAEMU-CET and ECOWAS-CET are respectively 12.1% and 12.3%. In 2015, a year after the implementation of the ECOWAS-CET, the imports of vegetables were 6.12% of the import product share. The imports of food products have reduced compared with 2014 (5.1% against 5.39%, respectively). The animal imports were 75217.31 thousand US dollars. (See Table 3).

Table 2. WAEMU-CET and ECOWAS-CET Tariff Rate by Selected Products in TOGO

Selected products	WAEMU CET		ECOWAS CET	
	Category	Tariff band %	Category	Tariff band %
Maize	1	5	1	5
Paddy rice	1	5	1	5
Fresh or chilled tomatoes	3	20	4	35
Onions, fresh or chilled	3	20	4	35
Cassava roots ,sweet potatoes, yams	3	20	3	20
Fresh or chilled meat from bovine, ovine, caprine and porcine species	3	20	4	35
Concentrated tomato packaged for retail sale	3	20	4	35
Coffee, not roasted	3	20	2	10
Corn ,millet and sorghum flour	3	20	3	20

Source : Office Togolais de Recettes (OTR)

Table 3. Selected Products by Sector Imports by Togo from All Countries

	Import Product Share (%)			Import (US\$ Thousand)		
	Year 2000	Year 2014	Year 2015	Year 2000	Year 2014	Year 2015
Vegetable	6.59	4.98	6.12	21351.56	87368.55	106032.87
Food Products	5.83	5.39	5.1	18886.62	94491.13	88287.74
Animal	6.06	3.94	4.34	19640.76	69094.96	75217.31

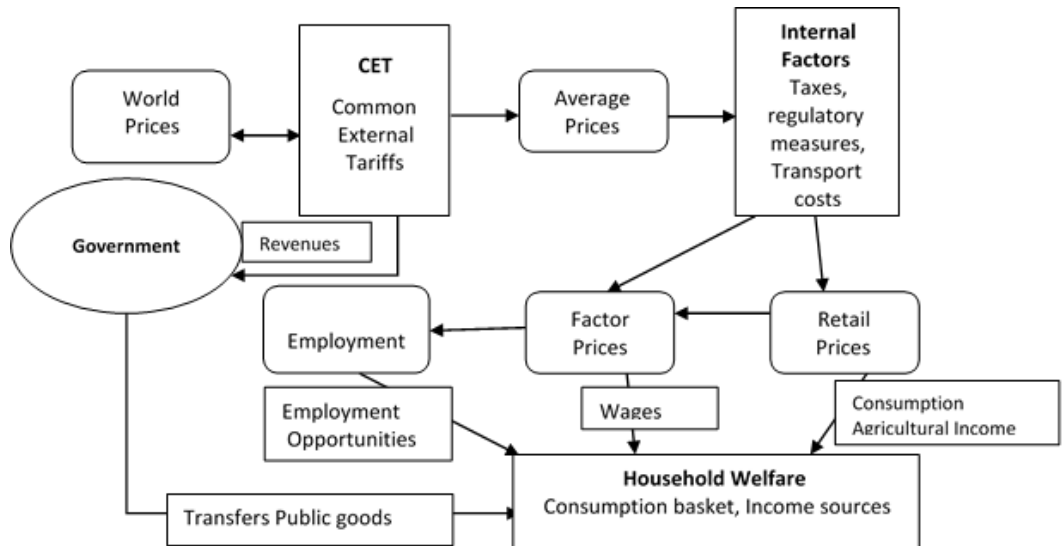
Source: WITS World Integration Trade Solution

3. Literature Review and Hypotheses

3.1 Theoretical Framework

In Figure 1, the Common External Tariffs may affect the welfare of households through three mechanisms: (i) the consumption effect via the prices of goods consumed by households; (ii) the income effect through wages, sales of agricultural products and other forms of household income; (iii) the income effect through the mobilization and redistribution of government revenues.

These three effects provide an overall analysis of the welfare considerations. Trade reforms can influence welfare through prices. The rise of prices (due to the increase of the tariffs for some products) can disrupt the access to certain markets for poor households. On the other hand, poor household may benefit from products with a reduced tariff rate. Third, the new CET may create opportunities for new consumer products and new markets, thus, increasing the households' welfare. The CET can affect the prices of factors used by firms to produce goods (wages) and the income gained by households from the sales of agricultural products. A higher tariffs offer greater revenues for the government. Governments can use it to redistribute the revenues to households or provide basic public goods (such as education, health care, infrastructure.). This will increase the households 'welfare.



Source: UNCTAD (2012)

Figure 1. Common External Tariffs transmission Channels on welfare

3.2 Empirical Review

Trade policies have differential effects and create different responses on gender. Studies on the gender perspective, although a relatively new field of research, generate increasing researchers' interest. The recent work of UNCTAD on the gender perspective in Cape Verde remains a benchmark in the field. Indeed, UNCTAD (2011) has explored the impact of trade policy on the well-being of households in a gender approach. Trade policies affect gender relations in Cape Verde through prices, remittances and tourism.

Porto (2006) developed a methodological approach that allows exploring the effects of trade policy on income distribution and poverty in developing countries. This methodology applied to the study of the distributional impact of reform "Mercosur" on households in Argentina revealed a pro-poor impact. This is because, prior to the reform, trade policies in Argentina had protected the wealthy at the expense of the poor. After the reform, they provided some protection to the poor. As a result, the tariff after reform is relatively high for skilled-labor-intensive goods. On average, poor households benefit more from the reform compared to middle-income households, while the impact on rich households is positive but not statistically significant.

Nicita (2009) investigated the effect of trade liberalization on households' well-being both as consumers and as factor owners in Mexico. He found that all the positive effects of liberalization hide significant differences in the distribution of gains across income levels and geographical regions. Thus, wealthy households and urban households have relatively higher earnings compared to others.

Topalova (2010) used trade liberalization in India from 1991 to measure its impact on poverty and the mechanism underlying this impact. The results showed the impact of trade liberalization was more pronounced on households at the bottom of the income distribution, and in Indian states where inflexible labor laws hampered factor reallocation across sectors.

Agossadou et al. (2014), using a simulated partial equilibrium model in Benin, revealed that the rise of the Common External Tariff from 10% to 35% could result in a slight increase in the supply of local rice while the demand for steeper rice will decline. Moreover, at 35%, the consumer surplus was reduced.

Mboup et al. (2016) pointed out the passage of the WAEMU-CET to ECOWAS-CET reduced women's unemployment in the labor market and increased the welfare of all households in Senegal.

Orkoh (2015) measured the welfare effects of the adoption of ECOWAS-CET in Ghana. With a computable general equilibrium (CGE) model and a micro simulation model integrated, he found that ECOWAS- CET would reduce the welfare of poor and rich households as producers, especially poor and male-headed households. On the other hand, the new tariff increases the welfare of poor female-headed households, as consumers.

To our knowledge, there are virtually no studies on trade and gender in Togo.

3.3 Hypotheses

Based on the literature review and analysis, we formulate three hypotheses:

Hypothesis 1: female-headed and male-headed households living in areas far from the port city will witness their welfare loss after the tariff change.

Hypothesis 2: ECOWAS- CET will increase the welfare of households as food crop consumers, particularly female-headed households.

In TOGO, women mainly consume food products (in the ECOWAS-CET Band 1). Most food products experienced an unchanged tariff in the ECOWAS-CET, and an upsurge in the import of these products is expected. This will lead to an increase in the supply of food crops and, thus, to a price decrease. All things equal, women can purchase a larger amount of food products with the same income.

Hypothesis 3: Remittances received from the government increase the welfare of all households, mostly the poor households.

The Togolese Government redistributes the ECOWAS-CET tariff revenues to households through social security, insurance and retirement pension. With these remittances, households will increase their welfare.

4. Data, Model Specification and Methodology

4.1 Data

The methodological approach led us to use microeconomic primary data that portray households' socioeconomic characteristics. This allows us to map the price variation effects on households' welfare. We use the survey data QUIBB 2015. 2400 households (10,862 individuals) were questioned during the QUIBB 2015. The survey is divided up into specific sections such as Agricultural Production, durable goods, self-consumption, current expenditures and household income. The QUIBB survey represents the rural and urban

residents in the five regions: Central, Maritime, Plateaux, Savanes and Kara; as well as the capital city Lomé. It was developed by a group of donors and institutions and realized by the National Agency for Statistics and Economic Analysis (ANSEA).

We apply the following sample restrictions on the original data set. We only keep the observations for households with information about the households' characteristics, the household expenditure and the remittances received. Table 4 portrays the characteristics of the household heads in the restricted data. The data had 8,850 household heads, with a share of 22.47 percent representing the female heads. From the households' distribution by the area of residence, we find that most male-headed households live in rural areas while most female-headed live in the urban zone.

Table 4. Distribution of Households by Gender of Household Head and Place of Residence

Gender and place of residence	Number of households	Share (percentage)
Male as the household's head	6,861	77.53
Female as the household 's head	1,989	22.47
Total	8,850	100.00
Female household heads in rural areas	848	9.58
Male household heads in rural areas	3,871	43.74
Female household heads in urban areas	1,141	12.89
Male household heads in urban areas	2,990	33.79
Total	8,850	100

Source: Authors compilation based on the QUIBB 2015

4.2 Methodological Approach

The adopted methodological procedure will be centered on two steps. Our analysis, which broadens the scope of the study of Mensah (2015) will be based on the work of Benjamin and Deaton (1993). The gender perspective is supported by the methods of UNCTAD (2011).

The first step has two phases:

- The inspection of the induced changes in prices and income following the transition to the ECOWAS CET;
- The estimation of these changes in price and income on household welfare.

The second step is to use a nonparametric estimation to analyze the effects of changes in prices and income on households' residence (urban or rural areas). We introduce a new dimension, the distance between the regions and the capital city (which is also the port city). This approach will outline whether being close (or not) to the port city influences the households' well-being ((female-headed and male-headed households) after the tariff change.

Third, we investigate the effects of the remittances received by households after the implementation of the ECOWAS-CET with a non-parametric regression. This approach will determine whether the redistribution of the government revenues is pro-poor.

4.2.1 Induced Changes in Prices

First, we determine the domestic price of the imported products. It depends on the consumption of this household, the international price, the tariff rate and the transportation costs. This is given by the following equation:

$$p_k = p^\pi [1 + \Delta TEC + (0.01 * dist_k)] \quad (1)$$

p_k is the domestic price; p^π is the consumer price index representing the international price; ΔTEC is the change in the tariff rate applied to goods, $dist$ is the distance in kilometers from the households' residence and the port city.

Since ΔTEC is the change in the ECOWAS-CET and the WAEMU-CET rate applied to goods, we can rewrite the equation (1) as:

$$p_k = p^\pi [1 + (ECOWAS TEC - WAEMU TEC) + (0.01 * dist_k)] \quad (2)$$

The further the region of residence, the higher will be the transportation cost supported by the households and the domestic price of the imported goods. Table 5 describes the distance between the regions and the port city. A higher ECOWAS-TEC will also increase the domestic price of the imported goods. For the difference between the ECOWAS-TEC and the WAEMU-TEC, we use the unweighted average of all the tariff rates for all the products, which gave us 5.5.

$$p_k = p^\pi [1 + 5.5 + (0.01 * dist_k)] \quad (3)$$

The induced price change between the domestic price and the international price is given by the equation:

$$\Delta_{pk} = [5.5 + (0.01 * dist_k)] \quad (4)$$

Table 5. Distance between the Regions and the Port City

Distance between the Port of Lomé and other regions	kilometers
LOMÉ	0
MARITIME	31.8
PLATEAUX	157.7
CENTRALE	336.7
KARA	411
SAVANES	617.7

Source: Authors compilations from the ANSEA statistics

4.2.2 Change in the Household Welfare

Following Deaton (1989) and the work of Benjamin and Deaton (1993) used by Mensah (2015), the changes in the household welfare following the price variation depend on the consumption and production of the household. However, we only consider the consumption effects in this study, and leave out the production effects. The QUIBB data does not allow the identification of net consumers and net producers of food. We assume that in TOGO, households in urban areas consume 80 percent of imported goods. In rural zones,

a large share of produced goods is auto-consumed. Thus, they only devote 50 percent to imported products.

The rise in the price decreases the welfare when the household consumes. The net consumers' households would see their welfare decline. Our household welfare variable is determined by the following equation:

$$welfare = Import\ share * Food\ share * \Delta_{pk} \tag{5}$$

where Welfare is the welfare gain; Import share is the proportion of imported products consumed by the households (0.8 for households in urban areas and 0.5 percent for those in rural areas). Food share is the part of food expenditure in the total expenditure of the household. ; Δ_p is the induced price change.

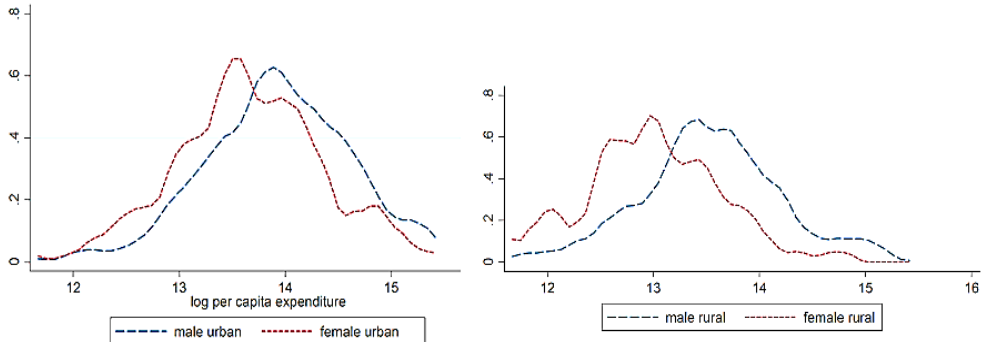
4.2.3 Non Parametric Estimation technique

The appropriate estimation technique is nonparametric regression, which allows the decomposition of the effects into quantiles (quantile regression). In our analysis, the independent variable is the household consumption expenditure as a share of the total budget. The independent variables are: (i) the logarithm of per capita expenditure, (ii) the gender of the household head, (iii) the proportion of women in the household, (iv) the sector of activity, (v) the area of residence, (vi) the distance from the household region of residence to the port city.

5. Results and Discussion

5.1 The Distributions of Log Per Capita Expenditure for All Households

The distribution of expenditure per capita (in figure 2), for both male and female –headed households and both urban and rural areas, illustrates an inverted U-shape. This suggests that the expenditure increases, reaches the optimum, and then drops. Figure 2 reveals the density curves for the female-headed shift to the right, compared with the male headed. Thus, the female-headed households appear richer than male-headed ones. This phenomenon is even more pronounced in rural areas than urban zones. This is because in TOGO, female heads tend to spend more for the household consumption, especially in rural areas.



Source: Authors' compilation

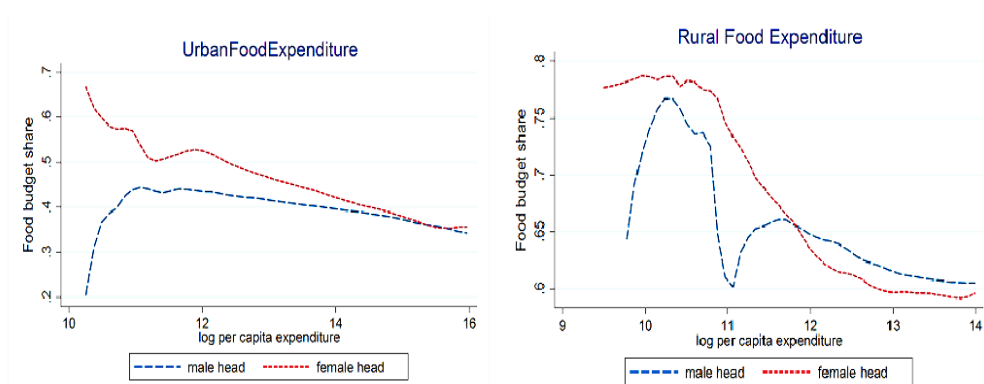
Figure 2. Distribution of per Capita Expenditure by Household Head in Urban and Rural Areas

5.2 Estimation of The Relationship Between the Food Budget Share and The Gender Perspective and The Household Size.

We observe, in Figure 3, that, the share of household expenditure allocated for food declined as the income level increased, in both urban and rural areas and for both male- and female-headed households.

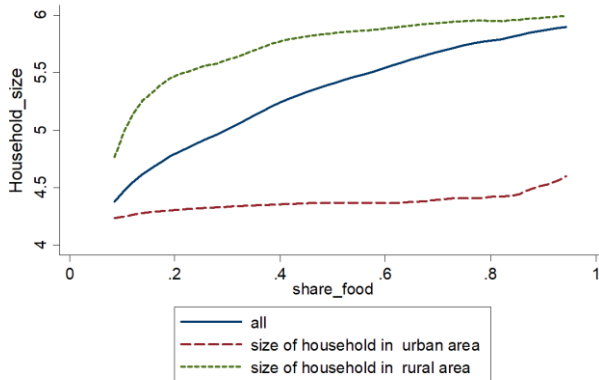
In the urban area, poor male-headed households spend less on food budget compared to female-headed households. This is because in Togo, women in poor households contribute actively (and sometimes solely) to the food expenses. As their income increases, the male-headed households spend more on food, while we see a decrease in food spending for female-headed households. As they become richer, men take part in the house expenses, whereas women have the tendency to purchase luxury goods or save when their income increases. The food expenditure gap between male-headed and female-headed households is bigger for low-and-middle classes and much smaller for high-income household. In rural areas, male-headed households in the highest per capita expenditure percentile spend more budget on food consumption than female-headed ones.

Overall, in Togo, as the size of the household increases, its consumption expenditures for food rise. This correlation is observed by the upward curve. Undeniably, as the number of household members increases, the needs also arise. On average, a household with five members allocates around 30 per cent of its expenditure budget on food consumption. In urban area, a five-member household only uses 11 per cent on food. (Figure 4).



Source: Authors' compilation

Figure 3. Male-Headed and Female-Headed Food Budget Share by Rural and Urban Areas.



Source: Authors' compilation

Figure 4. Food Consumption Share by Household Size

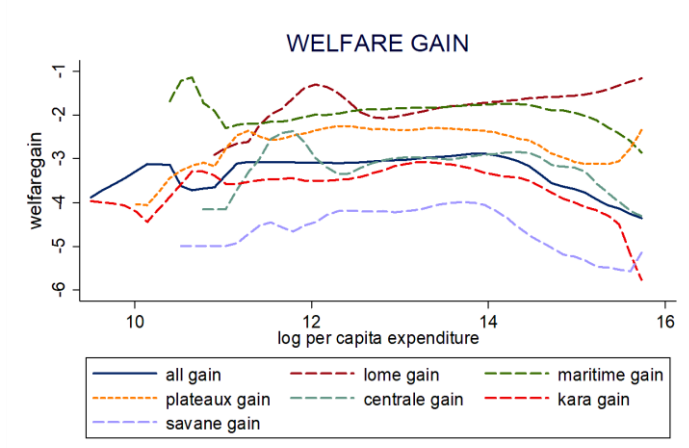
5.3 Overall Welfare Gain and Welfare Gain by Distance from The Port City

An increase of the tariff will result in an increase in prices. Since these prices are borne by the consumers, they will lose their well-being, resulting in a negative sign for the welfare gain. (Figure 5). Overall, consumer households from all income classes have experienced a substantial loss in welfare after the adoption of the ECOWAS-TEC. However, the decrease in welfare is severer for poor and middle-class households compared to rich households. There are differences in the distribution of these welfare gains across regions. This study also scrutinizes welfare effects of the TEC considering the geographic residence of the Togolese households. We consider six regions: Lomé, Maritime, Plateaux, Centrale, Kara and Savanes. In our hypothesis, we expect that the further the household resides from Lomé, the higher is the loss in the welfare.

Our findings support the hypothesis. Households in the Savanes region experienced the highest loss, whereas households in Lomé and Maritime region have the lowest. Plateaux, Lomé and Savanes regions, households in the highest percentile are less vulnerable to the welfare loss compared to the other classes. Oppositely, in Kara, Centrale and Maritime, the loss in welfare gain is largely borne by rich households. Except for Lomé, poor households, throughout the regions, are better off than the other classes. Two reasons explained this behavior. Poor households' consumer more necessity goods, which have a duty rate of 5-10 percent (while the middle-class are rich households consume more intermediate and luxury goods taxed at 20% and 35%). Besides, poor households in other regions are in are involved in the agricultural production. A proportion of the produced crop is auto-consumed.

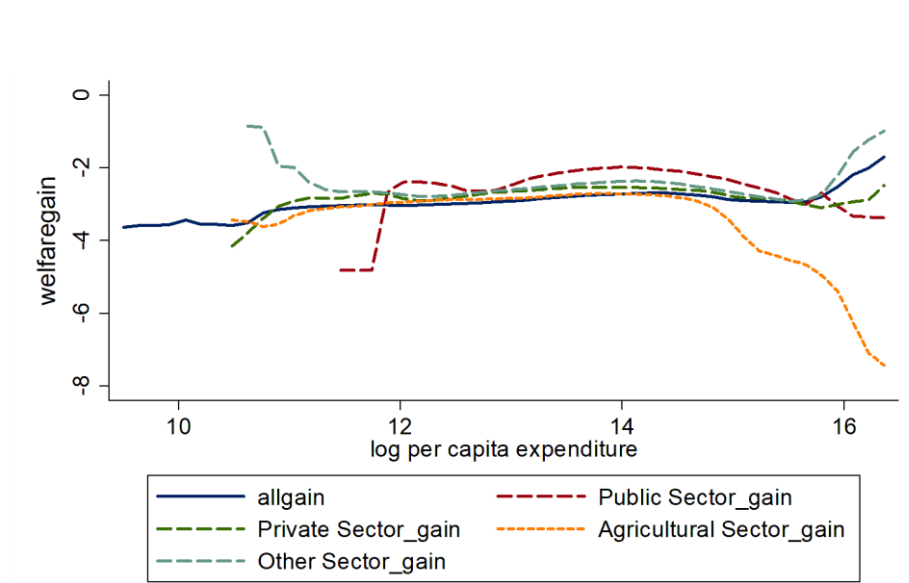
Furthermore, we examine the consumer households' welfare from the head- sector of activity: Self-employed farmers, employed in the private sector, in the private sector and other sectors. (Figure 6). Households with heads who are self-employed farmers suffer a significant loss in welfare. Apart from the self-employed farmers, the other sectors of activity curves follow the same trend throughout the expenditure percentiles. We notice a substantial decrease in the welfare for self-employed farmers in the highest percentile. The QUIBB 2015 provides some clarification on the matter. From the QUIBB 2015, we learn that household heads that are self-employed, represent the highest proportion at the national level (32.7%).

Overall, during the survey, most households in the agricultural sector reported that some shocks that led to a decline in their purchasing power. These shocks are mainly food prices and high prices of agricultural inputs decreased them in households.



Source: Authors' compilation

Figure 5. Consumer Households' Welfare Gain, by Regions.

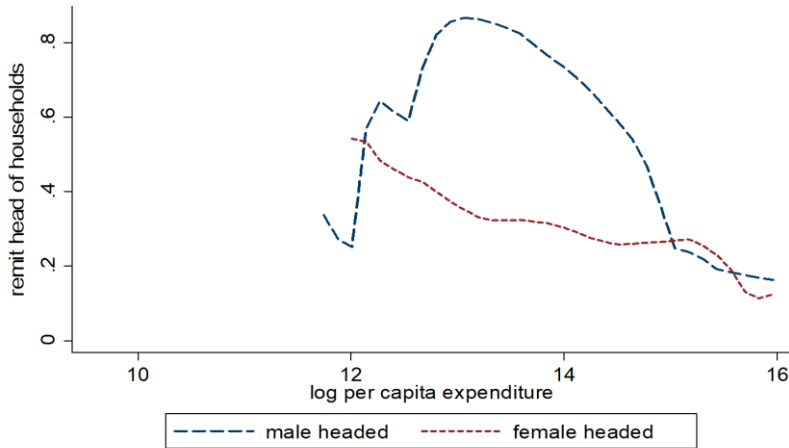


Source: Authors' compilation

Figure 6. Consumers' Welfare Gain, by Household Head Sector of Activity.

5.4 ECOWAS-TEC, Government Redistribution and Consumers Welfare

We inspect the way the government redistributes wealth within the economy after the implementation of the ECOWAS-TEC. Our results reveal that remittances affected income, particularly for the poor and middle-income class. In TOGO, remittances are poor-friendly and attenuate the effect of ECOWAS-TEC on welfare loss for low class households. When revenues from the tariffs are redistributed in Togo, male-headed households received a greater part. However, the male-headed distribution has an inverted U-shape while female-headed distribution follows a downward slope.



Source: Authors' compilation

Figure 7. Per Capita Expenditure and Remittances Received from the Government

6. Conclusion

This paper has examined the extent to which Togolese households were affected by the ECOWAS-CET tariff. The analysis pointed out welfare effects of the CET from the perspective of households as consumers. Our study found that the implementation of the ECOWAS-CET changed the welfare of the households, from a gender and region perspective. Expenditure per capita distribution, for male and female – headed households and both urban and rural areas, show an inverted U-shape. Besides, the share of household expenditure allocated for food declined as the income level increases, both in urban and rural areas and for both male- and female-headed households. The results also denote that ECOWAS-CET has reduced the welfare of consumer households in Togo, especially for self-employed farmers. As supported by the theory, consumer households living closer to the port city observed a smaller loss in the welfare. Our analysis found that households in Lomé (where the distance from the port city is zero) experienced the lowest loss in the welfare while households in the Savanes region (at 617.7 kilometers from the port) have the biggest loss score. In Togo, government social transfer is pro-poor because it left the poor better off, but it benefits more to male-headed households than female-headed households.

Because of our primary assumptions, this paper suffers some limitations. The first is the use of the tariffs’ unweighted average in the determination of the induced price change. Further studies can find additional databases, which provide information about imported products and their respective tariff change between the WAEMU-CET and ECOWAS-CET.

Second, we only concentrate our analysis on a partial equilibrium, leaving out the impact of the ECOWAS-TEC on producers' households. As suggested by the literature, tariffs also influence producer households' welfare. Finally, this analysis did not include the exemption of customs duties granted on certain products in TOGO. Further studies can try to relax these assumptions.

The government should implement effective strategies to attenuate the loss supported by consumer households in the country due to the implementation of the ECOWAS-CET.

References

- Agossadou, A., Fiamobe, R., Diagne, A. & Biaou, G. (2014). Impact du Tarif Extérieur Commun (TEC) sur l'offre, la demande du riz. Retrieved from http://www.ecoasso.org/articles/Agossadou_et_al.pdf
- Benjamin, D & Deaton, A. (1993). Household Welfare and the Pricing of Cocoa and Coffee in Cote d'Ivoire: Lessons from the Living Standards Surveys. *World Bank Economic Review* ,7(3): 293 -318. <http://dx.doi.org/10.1093/wber/7.3.293>
- Deaton, A. (1989). Rice Prices and Income Distribution in Thailand: A Non-parametric Analysis. *Economic Journal. Royal Economic Society* 99(395): 1-37.
- Jones, D. & Morrow-Jones, C. (1984). Local taxation and the consequences of revenue distribution patterns. *Regional Science and Urban Economics* 14: 63-69.
- Mboup S. D., Balde R. & Diallo T.M. (2016). L'impact des réformes commerciales sur la croissance économique, l'emploi et le bien-être dans les pays de la CEDEAO : le cas du Sénégal Rapport Final, Mai 2016. Policy Analysis on Growth and Employment PAGE.
- Mensah, A.N. (2015). Cotton price change and welfare in Togo. *Journal of Agriculture and Environment for International Development*, 109 (1): 109 – 122.
- Nicita, A. (2009). The price effect of tariff liberalization: Measuring the impact on household welfare. *Journal of Development Economics* 89(1): 19-27.
- Orkoh, E. (2015). Gender welfare effects of regional trade integration on households in Ghana. UNCTAD Virtual Institute (Vi) regional workshop on trade and gender analysis. Retrieved from <http://vi.unctad.org/tag/docs/tagmr/vimrtagghana16.pdf>.
- Osagi, (2001). Gender Mainstreaming: Strategy for Promoting Gender Equality Document. UN Women Office of the Special Advisor on Gender Issues and Advancement of Women. Retrieved from <http://www.un.org/womenwatch/osagi/pdf/factsheet1.pdf>
- Porto, G. (2006). Using survey data to assess the distributional effects of trade policy. *Journal of International Economics*, 70(1): 140-160.
- Ramsey, F. (1927). A contribution to the theory of taxation. *Economic Journal* 37(1): 47-61.
- Topalova P. (2010). Factor Immobility and Regional Impacts of Trade Liberalization: Evidence on Poverty from India. *American Economic Journal Applied Economics* (4): 1-41.
- UNCTAD (2011). Who is benefiting from trade liberalization in Cape Verde? A gender perspective. United Nations Conference on Trade and Development. New York and Geneva. Retrieved from: http://unctad.org/en/PublicationsLibrary/osg2011d2_en.pdf.

Notes

1. WAEMU has 8 members: Benin, Burkina Faso, Côte d'Ivoire, , Guinea-Bissau, Mali, Niger, Senegal, Togo
2. ECOWAS is constituted by 15 West African states: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.
3. OSAGI, 2001, 'Gender Mainstreaming: Strategy for Promoting Gender Equality Document'. UN Women