

Do export taxes promote export growth? Evidence from Ethiopia's leather industry

WEGAYEHU BOGALE FITAWEK AND MMATLOU KALABA*

Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa

E-mail Wegayehu Fitawek: wegbogale@gmail.com;

* E-mail Mmatlou Kalaba: mmatlou.Kalaba@up.ac.za (corresponding author)

Abstract

With African economies slowly departing from the emphasis on the theory of comparative advantage, which seemed to imply a policy of continuing export of primary goods, the interest in exporting processed or value-added products has become quite widespread, leading to questions about the empirical effects of such measures on local industries. The aim of this paper is to analyse the effect of an export tax on the export competitiveness of Ethiopia's leather industry. The Government of Ethiopia implemented an export tax of 150 per cent on raw hides, skins and semi-finished leather products in 2008. A similar tax rate was placed on crust leather in 2012. According to the Government of Ethiopia these fiscal arrangements would substantially encourage leather goods manufacturing. A Constant Market Share (CMS) model was used to evaluate Ethiopia's performance in leather products trade in response to these measures. Export value data in 2007 are used as the base year, whereas data in 2013 are used to measure the impact of the export tax. The results indicate that the export tax affected the export of raw hides and skins and unfinished leather products negatively. However, the ramifications of this state policy on exports of finished leather products have been positive. These government policies, thus, worked to increase production and export of value-added leather products at the expense of local tanneries. The government could, usefully, consider implementing additional policy measures to upgrade the competitiveness of local tanneries.

Keywords: Raw hides and skins; leather goods; export tax; competitiveness; CMS.

1. Introduction

The export of raw materials in Africa has often been justified on grounds of classical trade theories of comparative advantage. The problems in this economic strategy, together with a wider critique of mainstream development economics (Chang, 2002, 2003; Obeng-Odoom, 2013, 2016, 2018) have generated interest in alternative strategies in Africa. One of such is the use of export tax to encourage value addition to the leather industry in Ethiopia.

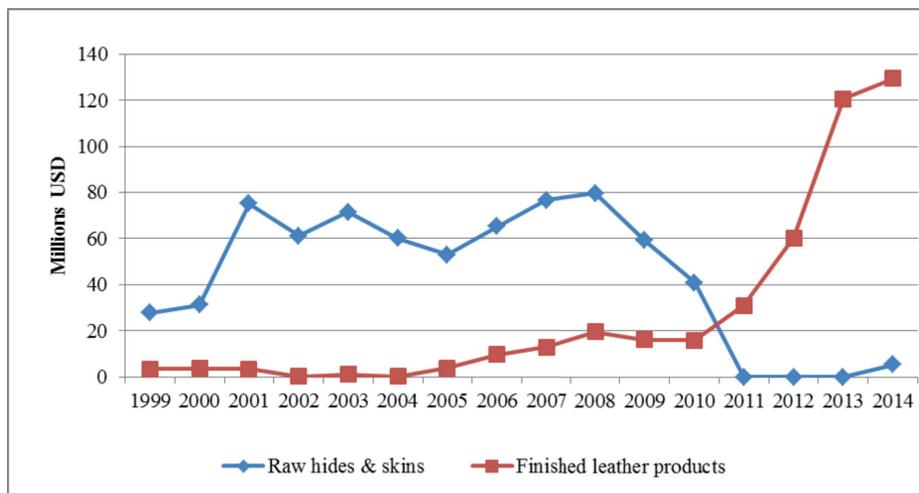
Clearly, a global strategy, export taxes and other export restraints ranked ninth among the most frequently used measures against foreign commercial interests in 2009 (Evenett, 2009), and fifth in 2012, after bailouts, trade remedies, tariffs, and non-tariff barriers (Evenett, 2012). However, export restraints have not been given adequate attention by the World Trade Organization (WTO) (Solleder, 2013). Article XI of the General Agreement on Tariffs and Trade (GATT) generally prohibits quantitative restraints except temporarily to prevent or relieve critical shortages. However, export taxes are allowed and no restrictions have been set under the GATT on their level. Most WTO members have imposed export taxes at some stage and in recent years they have had a surge of popularity as a tool of industrial policy. Indeed, the number of WTO members applying export taxes increased from 39 in 2004 to 93 in 2013, impacting 178 importing countries (Solleder, 2013).

Ethiopia has large livestock populations; moreover, Ethiopian leather, particularly from sheepskin, is strong and in high demand. The international markets for the production of high-quality leather products, such as shoes, gloves, and bags are key sources of such demand. Developed countries, such as the USA, Italy and China, are the main market destinations for Ethiopian raw hides and skins and finished leather products. However, Ethiopia's leather product exports are lower than those of other African countries. In this study, two African countries, Nigeria and South Africa, are used for comparison, based on high livestock population (Nigeria) and high export value (South Africa).

Ethiopia recently applied export taxes to encourage the development of a domestic value chain in the leather industry: in 2008, the government imposed a 150 % export tax on the export of raw hides and skins (RHS) and semi-processed leather products. In 2012, the government also levied another 150 % export tax on the leather industry on the export of crust leather. In addition, the government suspended the ban on new foreign investment in tanneries for several years, because local tanneries were not advanced enough to process up to the crust level.

As shown in Figure 1, following the imposition of export taxes in 2008, Ethiopian exports of raw hides and skins and semi-processed leather products dramatically decreased, while exports of finished leather products sharply increased. However, there is no quantitative evidence about the impact of the 150% export tax on the competitiveness of the leather industry as a whole.

FIGURE 1: TRENDS OF RHS AND LEATHER PRODUCTS EXPORT IN ETHIOPIA



Source: Authors' computation based on data obtained from ERCA and UNCOMTRADE, 1999-2014

There has been only limited study of the impact of the export tax in Ethiopia's leather sector. Abebe & Schaefer (2013) assess the impact of Ethiopia's export taxes and other industrial policies on its leather sector. They found that industrial policies in the leather sector encouraged the production of high-value leather goods and improving export and employment in the sector. The present paper extends this literature by examining and analysing the effect of those policy measures on the competitiveness of the leather industry.

To flesh out these findings, the paper is structured into 4 sections. Following this introduction, section 2 gives an overview of export restraints. Section 3 describes the constant market share (CMS) analytical method that is applied in this study to assess the impact of Ethiopia's experiment with export restraints. Section 4 presents empirical results and discussions. Finally, the paper closes with concluding remarks.

2. Overview of export restraints

Export restraints may be designed to meet various goals, including environmental protection, increasing government revenue, or (most typically) encouraging the domestic processing sector. Export restraints on raw materials affect global competition and the supply chain by creating differences between domestic prices and world prices for production inputs. The price difference provides an advantage for the domestic downstream industries and attracts investment in the processing sector. However, it affects importing countries by increasing the cost of their imports of the raw materials while lowering the cost of their imports of the downstream products. For the latter reason, export restraints have on occasion been challenged as countervailable export subsidies¹.

In the case of large export countries, restricting exports of a particular commodity can lead to an increase in the world price of the restricted commodity. This often leads to an improvement in the country's terms of trade. According to Bickerdike (1906), the arguments on export tax measures and those on optimum tariffs are similar. Export taxes on primary commodities serve as indirect subsidies to manufacturing and processing industries by lowering the domestic price of inputs, as compared with the world non-distorted price. Export taxes can have a positive effect on government revenue and they can affect income redistribution. Conversely, export taxes can impose serious negative impacts on the producers of raw materials and negative externalities for trade partners.

2.1. Types of export restraints policies

Export taxes, export bans, quotas and licensing are some of the forms of export restraints. An export tax is a duty collected on exported commodities. There are different forms of export tax, such as ad valorem tax (percentage tax of the value of the product), specific tax (fixed amount to pay per unit of a product), and progressive tax (i.e. it depends on the price of the product).

Export bans constitute another type of export restraint which cuts exports completely. Export bans have been applied to products such as hides and skins to encourage domestic value addition, raw logs to protect forests or encourage downstream processing, soyoil to encourage the development of downstream biofuel production and exports², rare earth minerals for strategic industrial policy

¹ See for example US measures in Certain Softwood Lumber Products from Canada and Leather from Argentina; and the WTO challenge by Canada against US practice in United States - Measures Treating Exports Restraints as Subsidies, Report of the Panel, WT/DS194/R, 29 June 2001.

² See Argentina's policies in this area, as challenged by the European Communities.

motives³, live fishery products, staple food products for domestic food security and/or containing inflationary pressures⁴, and wildlife to protect endangered species. The two core problems of using this policy are the lack of long-term credibility of such a policy and the fact that it mostly leads to smuggling (Marks *et al.*, 1998). Export quotas and licensing are also forms of export restraints; quotas restrict the maximum amount of exports, while licensing makes sure that commodities can be exported only by permitted exporters.

2.2. Overall effects of export tax

An export tax has different effects when imposed by a major exporter of the taxed commodity, as compared with a small exporter of the product (Bouët and Laborde, 2010). When an export tax is imposed by a country with a large share of the export market, it will influence the world price. This leads to terms-of-trade gains for the exporting country; however, the importing countries' terms-of-trade worsen. Producers in exporting countries are discouraged because of low domestic prices, and then consumers benefit. Meanwhile, consumption in the importing country is reduced because of the high world price. When a country with a small share of the export market imposes an export tax, the effect is different because this will not affect the world price.

For a small exporter, the welfare effect will generally be negative, with welfare losses generated because the implementing cost is greater than the revenue derived. However, for a major exporter, the national welfare effect can be positive or negative, depending on its ability to increase the world price. Overall, the world welfare effects of export taxes are negative, due to both production and consumption efficiency losses in exporting and importing countries (Anania, 2013).

In addition, an export tax results in an income distribution effect from producer to consumer in the same sector. If an export tax imposed on a raw commodity results in low domestic prices for the raw commodity in the domestic market, this subsidises the domestic processor industry that uses this raw commodity, and this elicits an income transfer from the raw commodity producing sector to the processing industry. An export tax policy encourages the processing industry

³ See Nabeel A. Mancheria, Benjamin Sprecher, Gwendolyn Bailey, Jianping Ge, and Arnold Tukker. 2019. "Effect of Chinese policies on rare earth supply chain resilience," *Resources, Conservation & Recycling* 142; 101-112.

⁴ See, e.g., the various restrictions on staple food exports in East Asia in 2008 for food security reasons in the context of a spike in world food prices.

because the industry gains competitiveness in the international market, although it harms the raw commodity producing sectors (Piermartini, 2004).

3. Analytical Method

A constant Market Share Method was used to evaluate the impact of export tax on the export competitiveness of Ethiopia's leather industry. The CMS model was first proposed by Tyszynski (1951) to analyse export growth. According to Fleming and Tsiang (1956), a change in export share not only depends on a change in competitiveness, but also depends on the conditions of world demand. Fleming and Tsiang (1956) analysed the variation in exports through the difference between export revenues and constant export share revenues by applying CMS methods.

The CMS model has been widely used to evaluate trade policy and its implications (Amzul, 2010; Chien and Lee 2010; Haque *et al.*, 2014; Pandiella, 2015; Poramacom, 2002; Skriner, 2009). Suprihatini (2005) analysed the export competitiveness of Indonesia tea product in the world market using the CMS approach. The study concluded that export growth of Indonesia tea was lower than that of the world tea growth due to product composition effect and distribution aspect problem, which makes low competitiveness of Indonesia tea compared to other tea producing countries.

Obi and Ndou (2013), analysed the competitiveness of South Africa citrus industry using the CMS model. The study evaluates the export market share of the South Africa citrus industry using time series data from different organisation. The CMS model result showed a positive performance for orange and lemons in selected markets, which are UK, Europe, the Middle East, Americas, Asia and Africa. However, South Africa's citrus industry, in general, has low competitiveness in many markets. This is due to the food safety standard and change in the consumer industry. South Africa remain behind to amidst the changes in the business environment, particularly food safety and diversification of market.

Rifin (2010) used the CMS model to analyse the export competitiveness of Indonesia's palm oil products following the imposition of an export tax that was designed to lower the domestic consumer price for palm oil. The study concluded that Indonesia's palm oil export competitiveness was reduced compared to Malaysia's product.

Rifin and Naully (2013), analysed the effect of an export tax on Indonesia's cocoa export competitiveness using the CMS approaches. The Indonesia

government has implemented an export tax on cocoa beans since April 2010 in order to develop the cocoa processing industry. The study shows that the export tax shifted Indonesia's exports from cocoa beans to processed cocoa products. However, Indonesia's cocoa export competitiveness was low compared to three other cocoa export countries, as reflected in the fact that Indonesia's cocoa export growth was lower than the growth of world demand.

The CMS-based analysis basically decomposes export growth into four components, namely the market size effect, the market composition effect, the commodity composition effect, and the competitiveness effect (Richardson, 1971). The market size effect shows that the country's export growth is caused by an increase in market destinations requiring imports. The market composition effect indicates that the country can concentrate on a relatively growing market compared with the world market. The commodity composition effect shows whether a country is concentrated on a commodity whose market is expanding rapidly. Lastly, the competitiveness effect is the residual of the CMS, which is not explained by the other three effects. It is also assumed that the role of the domestic factors of the exporting countries is dominant.

The formula for the constant market share is as follows (Tyres, *et al.*, 1987):

$$\frac{X_t - X_0}{X_0} = g + \frac{\sum_i (g_i - g) X_{0i}}{X_0} + \frac{\sum_i \sum_j (g_{ij} - g_i) X_{0ij}}{X_0} + \frac{\sum_i \sum_j (X_{tij} - X_{0ij} - g_{ij} X_{0ij})}{X_0}$$

where:

- g = growth rate of world leather product export
- $g_i = \frac{W_{(t)i} - W_{(0)i}}{W_{(0)i}}$ growth rate of world export for leather product i
- $g_{ij} = \frac{W_{(t)ij} - W_{(0)ij}}{W_{(0)ij}}$ growth rate of country j import of leather product i
- $\frac{X_t - X_0}{X_0}$ Ethiopian leather export growth
- $\frac{\sum_i (g_i - g) X_{0i}}{X_0}$ commodity composition effect
- $\frac{\sum_i \sum_j (g_{ij} - g_i) X_{0ij}}{X_0}$ market composition effect
- $\frac{\sum_i \sum_j (X_{tij} - X_{0ij} - g_{ij} X_{0ij})}{X_0}$ competitiveness effect

X_t = Ethiopia's total leather product export value at year t

X_0 = Ethiopia's total leather product export value at base year

$X_{(t)i}$ = Ethiopia's leather product export value at year t for leather product i

$X_{(t)j}$ = Ethiopia's total leather product export value at year t to country j

$X_{(t)ij}$ = Ethiopia's leather product export value at year t for leather product i to country j

$W_{(t)}$ = world's total export value for all leather product at year t

$W_{(t)i}$ = world's total export value at year t for leather product i

$W_{(t)j}$ = world's total export value at year t to country j

$W_{(t)ij}$ = world's total export value at year t for leather product I to country j

where:

t = current year (2013)

0 = base year (2007)

i = specific product (4101, 4102, 4103, 4104, 4105, 4106, 4107, 4112, 4113, and 64)

j = importing destinations (Italy, China, Hong Kong, and the USA)

This study used International Trade Centre (ITC) data from the years 2000–2014. South Africa and Nigeria were selected as the appropriate and effective competitor exporting countries. The year 2007 was used as the base year, with 2013 being considered as the year relevant for after-export-tax effects.

The four main importers from Ethiopia (Italy, China, Hong Kong and the USA) were selected to analyse the market position of Ethiopia's raw hides and skins, unfinished and finished leather products in the world market. In this paper, we treated Hong Kong as a separate country from China for the purpose of international trade. The HS codes for the leather products covered in the analysis are indicated in the next table (Table 1).

TABLE 1: RAW HIDES AND SKIN AND LEATHER PRODUCTS HS CODES, 2 & 4 DIGIT

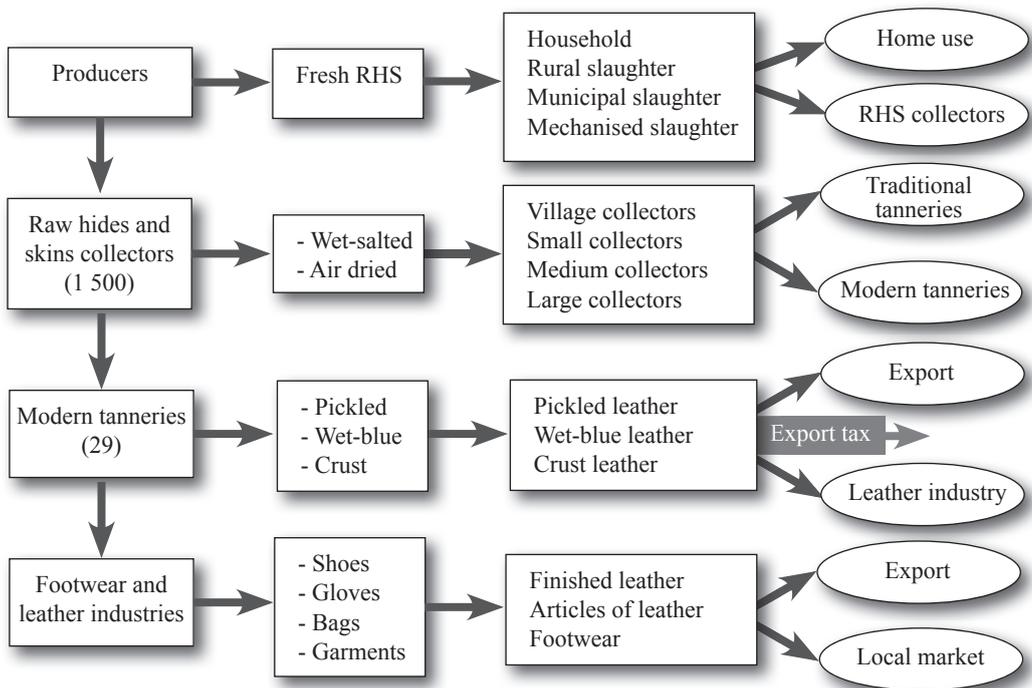
Category	HS code	Specification	Product categories
Primary product or Raw hides and skins (RHS)	4101	Raw hides & skins of bovine/equine animals	Whole hides and skins of bovine animals (fresh or wet-salted or dry-salted)
	4102	Raw skins of sheep or lambs	Raw skin of sheep or lamb with wool or without wool, fresh, salted, dried, pickled
	4103	Raw hides and skins	Raw hides and skins of goats or kids (fresh or preserved)
Semi-processed	4104	Leather of bovine/equine animals	Bovine leather pre-tanned or tanned or full grains or wet-blue
	4105	Sheep/lamb skin leather	Sheep or lamb skin leather (without wool or pre-tanned)
	4106	Goat/kid skin leather	Goat or kid skin leather (without hair or pre-tanned)
Further-processed	4107, 4112 & 4113	Leather further prepared after tanning or crust and leather of other animals	Leather further prepared after tanning or crusting, including parchment-dressed leather, of other animals, without wool or hair on, whether or not split
Finished leather products (FLP)	42	Articles of leather, harnesses and travel goods	Articles of apparel and clothing accessories of leather or composition leather, handbags
	64	Footwear, gaiters, and the like parts	Footwear with uppers of leather or composition of leather

Source: ITC, (2015)

3.1. The leather industry value chain

In 2012, there were 27 tanneries which produced crust leather for the export market, and finished leather mainly for the Ethiopian domestic market. Hides and skins change hands several times before they reach the tanneries, as traders collect them in small quantities over a large geographic area. The leather tanneries in Ethiopia obtain most of the hides and skins from collectors and traders. Larger tanneries, equipped with machines and the required facilities, buy semi-processed products from other tanneries. This leads to improvements in the leather value chain. The leather industries buy raw materials from the tanneries and produce various types of finished leather products, both for domestic use and export purposes (i.e. shoes, gloves, garments, and other leather articles) (USAID, 2013). The most common leather industry value chain is illustrated in Figure 2 below.

FIGURE 2: LEATHER INDUSTRY VALUE CHAIN



Source: Modified from USAID, 2013

4. Results and Discussion

4.1. Ethiopia's export and world market share

The total export value of Ethiopia rawhides and skins and leather products were US\$105.4 million and US\$135.0 million in 2007 and 2013, respectively. This is a 28 % export value increase over a six-year period. Meanwhile, the world demand for raw hides and leather products in the same period increased from US\$157.6 million to US\$235.2 million (i.e. a 49 % increase). This is an indication that world demand for leather products during this period increased more than Ethiopia's supply.

In Ethiopia, raw hides and skins and semi-processed leather products contributed 82.84 % of the total leather export value in 2007. However, in 2013, exports of raw hides and skins and semi-processed leather products were also completely eliminated, contributing only 0.22 % of total leather sector exports. Finished leather products, including footwear exports, increased significantly from 17.16 % in 2007 to 99.78 % in 2013 (Table 2). This clearly demonstrates

that the implementation of the export taxes resulted in a shift from exporting raw hides and skins and semi-processed leather products to exporting finished leather products and footwear.

TABLE 2: ETHIOPIA'S RHS AND LEATHER PRODUCTS EXPORT SHARE

Product	2007				2013			
	Ethiopia		World		Ethiopia		World	
	Value (Million USD)	%	Value (Million USD)	%	Value (Million USD)	%	Value (Million USD)	%
RHS	0.8	82.83	14.5	9.22	0.003	0.22	16.9	7.22
FLH	0.2	17.17	142.8	90.78	1.3	99.78	218.2	92.78
Total	1.0	100.00	157.6	100.00	1.3	100.00	235.2	100.00

Source: Authors' calculation based on ITC data, 2006, 2007, 2013 & 2014

Table 3 shows that Italy was the largest market destination for both Ethiopia's raw hides and skins and finished leather products in 2007. The values reached US\$37.8 million (43.30 %) and US\$8.7 million (48.54 %), respectively, for Ethiopia's total raw hides and skins and finished leather products exports. However, in 2013 the value of raw hides and skins imported by Italy were completely eliminated. Meanwhile, the value of finished leather products imported by Italy increased from US\$8.7 million in 2007 to US\$17.9 million in 2013. However, the share of Italy's imported finished leather products in Ethiopia's total export value of finished leather products declined from 48.54 % in 2007 to 13.36 % in 2013, and Italy was displaced by the Chinese and US markets (Table 3).

TABLE 3: RHS AND FINISHED LEATHER PRODUCTS IMPORTING COUNTRIES

Importer	Total RHS imported value (Million USD)				Importer	Total finished leather products imported value (Million USD)			
	2007	Share (%)	2013	Share (%)		2007	Share (%)	2013	Share (%)
World	87.3	100.00	0.3	100.00	World	18.0	100.00	134.7	100.00
China	11.6	13.30	0	0.00	China	0.6	3.51	23.8	17.71
Italy	37.8	43.30	0	0.00	Italy	8.7	48.54	17.9	13.36
Hong K	3.4	4.00	0.05	19.60	USA	0.6	3.50	22.4	16.63

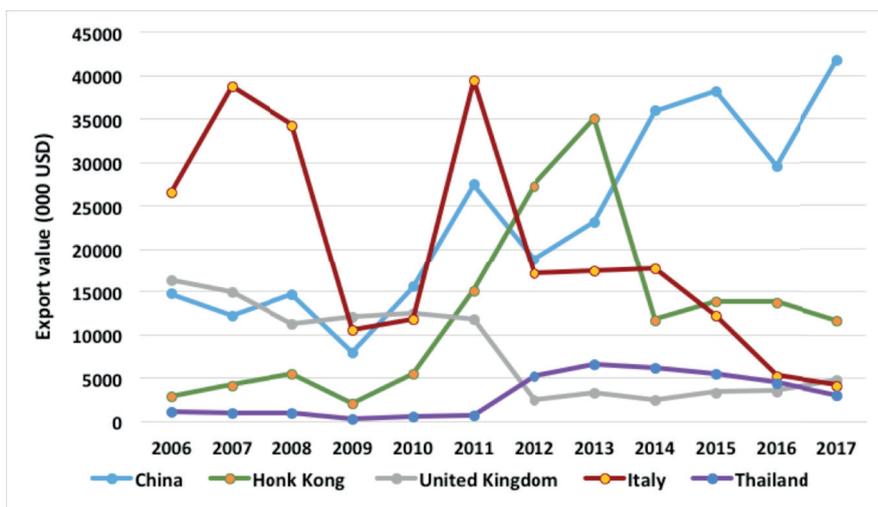
Source: Authors' calculation based on ITC data, 2007 & 2013

China was the second-largest market destination for Ethiopia’s raw hides and skins and finished leather products in 2007, accounting for 13.30 % and 3.51 %, respectively, of Ethiopia’s total export value of raw hides and skins and leather products (Table 3). In 2013, the share of raw hides and skins decreased to 0.00 %, due to the export tax. However, the share of Ethiopia’s finished leather products in Chinese imports increased from 3.51 % in 2007 to 17.71 % in 2013, reflecting the displacement of the Italian market by the Chinese market, with China becoming the top export destination.

The USA was the next export destination after China for Ethiopia’s finished leather products in 2013, with a market share of 16.63 % of Ethiopia’s total finished leather products export value. Hong Kong was the third export destination for Ethiopia’s raw hides and skins exports in 2013, with a market share of 19.60 % of the total raw hides and skins export value of Ethiopia (see Table 3).

Therefore, export taxes can be effective instruments to encourage industries engaged in the production and export of hides and skins and/or semi-processed leather to produce finished leather products. However, these export taxes affected the less efficient tannery industries and diverted export destinations from European countries to Asian countries; this finding is in line with Workneh (2014). Figure 3 below shows that before the export tax, the main importers were Italy and the United Kingdom, and that the export tax diverted exports to China, Hong Kong, and India.

FIGURE 3: THE MAJOR COUNTRIES IMPORTING RHS AND LEATHER PRODUCTS FROM ETHIOP



Source: Authors’ calculation based on UNCOMTRADE data, 2001-2014

4.2. Constant Market Share (CMS) Results

Table 4 sets out the results for the various categories of Ethiopian leather exports by stage of processing. In this study, competitiveness is inferred from the change in percentage points; the greater the value is, the higher the competitiveness; negative values indicate lack of competitiveness. The competitiveness of Ethiopia's raw hides and skins and semi-processed leather products (HS 4101 to HS 4106) was very low in all selected countries. However, Ethiopia's further processed and finished leather products (FLP) featured positive values, indicating high competitiveness in all selected markets, except Italy (for finished goods) the USA (for further processed goods) (Table 4). In general, RHS and semi-processed exports became uncompetitive in all markets following the imposition of the export tax. Further processed exports, which were not subject to an export tax until 2012 showed strong competitiveness over the whole period, even if there was a decreasing trend after 2016. Finished leather goods lost competitiveness in Italy but gained in all other markets, but it is inefficient.

The expansion of finished products to Asian markets reflects an interest development triggered by the export restraints on unprocessed leather: these foreign countries' firms built their own tanneries in Ethiopia after the imposition of the export tax and started producing export products, taking the advantage of Ethiopia's low labour cost. Accordingly, these policy measures led to increased foreign direct investment, and contributed highly to creating job opportunities for the citizens engaged in the leather industry sectors.

TABLE 4: COMPETITIVENESS OF ETHIOPIAN RHS AND FLH (CHANGE IN PERCENTAGE POINTS)

Market	RHS			Semi-Processed			Further Pro- cessed	Finished Goods		Total (all sectors)
	4101	4102	4103	4104	4105	4106		FLH	42	
Italy	-0.036	-0.098	-0.014	-0.015	-0.117	-0.141	0.872	-0.01	-0.387	0.054
China	-0.008	-0.104	0	-0.023	-0.029	-0.045	1.273	0	0.015	1.079
Hong Kong	-0.006	0	0	-0.012	-0.014	-0.056	1.95	0.002	0	1.864
USA	0	0	0	0	0	0	-0.027	0.12	1.112	1.205

Source: Authors' calculation based on UNCOMTRADE data, 2001-2014

Table 5 shows the results for Ethiopia along with comparator countries. The CMS result shows that Ethiopia had a negative RHS export growth (-0.53), and the positive overall export growth in Ethiopia's leather products (2.55), which

is greater than Nigeria, but still less than South Africa's. The export tax on RHS and semi-finished leather products led to higher export growth in finished leather products (3.08). This value is greater than both South Africa's and Nigeria's finished leather products export growths (2.09 and 2.39, respectively) (Table 5).

The commodity composition effects of finished leather products in all three countries were negative, indicating that the finished leather products exported by these countries grew slower than the world growth. However, the commodity composition effect of RHS is positive in Ethiopia and South Africa, meaning that the RHS products exported by these two countries are more in demand than others. The market composition effect for both RHS and FLH products are negative for the countries, except for a positive FLH for Nigeria.

TABLE 5: CMS RESULTS OF ETHIOPIA WITH COMPARATOR COUNTRIES

Components	Exporting Countries					
	Ethiopia		South Africa		Nigeria	
	RHS	FLH	RHS	FLH	RHS	FLH
Export growth	-0.529	3.080	0.969	2.090	0.095	2.390
Commodity composition effect	0.093	-0.224	0.173	-0.232	-0.011	-0.289
Market composition effect	-0.072	-0.190	-0.122	-0.016	-0.306	0.062
Competitive effect	-0.717	2.697	0.745	1.81	0.242	2.090
Market size	0.167	0.528	0.167	0.528	0.167	0.528

Source: Authors' calculation based on ITC (2015) data

The negative value indicates that the market destinations for these specific products, which were exported by those countries, are growing slower than those in the rest of the world. All countries' competitive effects are positive, except for Ethiopia's RHS. The competitiveness effect of Ethiopia's FLH products were higher than South Africa's and Nigeria's were, which ultimately led to positive total export growth of Ethiopia's leather products. The positive competitive value indicates that the country's export growth of total leather products is attributable to the competitiveness effect, rather than commodity and market effects (Table 5).

The positive value of Ethiopia's leather products' export growth (2.55) comes from four components, namely market size (0.695), the commodity composition

effect (-0.132), the market composition effect (-0.262), and the competitiveness effect (2.25). The negative commodity composition effect (-0.132) and the market composition effect (-0.262) show that the imposition of the 150 % export tax, likely affected market destinations and commodities exports. The export tax led to the expulsion of all raw hides and skins and most unfinished leather products out of the market (those countries importing such products decreased) and to Ethiopia's exports of these commodities not growing faster than the world market did (Table 6). This result is in line with the study that had done by Brautigam and his colleagues in 2011 and Mulisa 2017, they found that Ethiopia is competitive and promising leather industry but inefficient.

The overall leather products export growths of Ethiopia, South Africa, and Nigeria were 2.551, 3.059, and 2.485, respectively (Table 6). This indicates the total leather export growth of Ethiopia was less than that of South Africa and greater than that of Nigeria. However, Ethiopia's RHS export growth was less than those of both South Africa and Nigeria, although the Ethiopian FLH export growth was greater than that of both those countries. This positive export growth in all selected exporting countries is due to the positive competitive effect, rather than commodity and market effects. The total leather products' market composition and the commodity composition effects in all three countries were negative. The negative commodity composition effects indicate that the main products exported by Ethiopia, South Africa, and Nigeria were growing slower than those in the rest of the world were. The negative market compositions effects also indicate that the main market destinations (Italy, China, Hong Kong, and the USA) were growing slower for these specific products than the world growth rate.

TABLE 6: EXPORT GROWTH IN TOTAL LEATHER PRODUCTS OF ETHIOPIA, SOUTH AFRICA AND NIGERIA

Components	Exporting Countries		
	Ethiopia	South Africa	Nigeria
Export growth	2.551	3.059	2.485
Commodity composition effect	-0.132	-0.138	-0.243
Market composition effect	-0.262	-0.059	-0.300
Competitive effect	2.250	2.560	2.333
Market size	0.695	0.695	0.695

Source: Authors' calculation based on ITC (2015) data

In general, after imposition of export taxes in 2008, the export of raw hides and skins and semi-finished leather products dramatically decreased. On the other hand, the export of finished leather products vastly increased, after a lag about 2 years. Accordingly, the policy had its effect in terms of changing the composition of Ethiopia's exports towards downstream processed products. Our result is in line with the study done by Abebe and Schaefer (2013), the Ethiopian government's policies targeted at fostering value-added local processing have met with some success, at the expense of Ethiopian tanneries. Some small local tanneries stopped exporting or greatly reduced their exports due to the new policy.

5. Conclusion

The aim of this paper was to examine the effect of export tax on the competitiveness of the Ethiopian leather industry. This was assessed after two tranches of 150 % export taxes were imposed in 2008 and 2012. The Constant Market Share model results show that export tax improved the competitiveness of the finished leather products but did not make the overall leather industry more competitive relative to the comparator countries that did not implement such a tax. This is because the export tax shifted Ethiopian export from raw hides and skins to finished leather products and most of the firms were in nascent stage to produce processed products. In addition, the export tax shifted the Ethiopia export destination from European countries to Asian countries (China, India and Hong Kong). An important knock-on effect triggered by the export restraints was the influx of foreign direct investment into Ethiopia from Asia, which contributed jobs and economic development to the leather industry sectors.

Biographical Notes

Wegayehu Fitawek is a PhD Candidate in Agricultural Economics at University of Pretoria, South Africa. She holds Master's degrees in Agricultural Economics from University of Pretoria and Haramaya University. Her research interests are mainly focused on agricultural policy analysis, food security and nutrition policy and land issues.

Mmatlou Kalaba is a Senior Lecturer at University of Pretoria. Mmatlou has a PhD from University of Pretoria and MSc from Oklahoma State University. His area of research and work include international trade, agricultural policy and climate change.

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