

Export Trade Incentives and Export Growth Nexus: *Evidence from Ethiopia*

ABSTRACT

Export trade is often considered as an engine of economic growth, and this led to attempts by governments in many countries towards promoting the export sector. The Ethiopian government has been taking measures to promote the export sector by introducing comprehensive financial and fiscal incentive schemes since 2002. Hence, this paper attempts to examine the type and trend of export incentive schemes and their effect on export growth in Ethiopia. This is an explanatory study trying to shed light on whether and to what extent financial and fiscal incentives provided by the government have led to export growth in the country using time series data on financial incentives, fiscal incentives, export volume, export value and export diversification covering the period 1997 to 2011. The data were collected from Ethiopian Revenue and Customs Authority (ERCA), Ministry of Finance and Economic Development (MoFED), and National bank of Ethiopia (NBE). Three stage analysis has been conducted including graphical analysis of trends of export incentive schemes and export growth, examination of correlation among variables in the data set, and finally, a time series econometric model. The time series econometric model was employed to determine the magnitude and direction of effect of fiscal and financial incentives on export value, export volume and export diversification. The study revealed that there are improvements in the export sector in terms of export value, destination and diversification despite that the share of manufactured exports is still marginal. The study also revealed that while the incentives are positively correlated with export value and export volume, they are negatively correlated with export concentration. In addition, the time series econometric analysis reveals that export incentives have a statistically significant impact on export growth. In sum, incentives to the export sector have robustly improved export value, volume and diversification. However, it has been noted that manufactured export is still insignificant which implies that the incentives have played only a partial role in boosting export earnings of the country.

Keywords: *Ethiopia, Exports, Export growth, Fiscal Incentives, Financial Incentives.*

1. INTRODUCTION

Owing to a strong link between rapid economic growth and exporting, countries attempted to accelerate economic growth by designing Export-Led Growth strategy [1]. For instance, a robust economic performance of the "Four Asian Tigers"¹ in the second half of the 20th century has been largely attributed to the performance of the external sector where the export sector was given a greater emphasis. Over the past two decades, developing countries have progressively increased their share in global trade from just less than a quarter to about a third [2].

¹ These are South Korea, Taiwan, Hong Kong and Singapore

21 Having realized the role of export in driving economic growth and hence development, the
 22 Ethiopian government has been endeavoring to create an environment conducive for
 23 expansion of the export sector. The government established export trade incentive
 24 schemes² through proclamation No.249/2001(later amended by proclamation No. 543/2007)
 25 and issued various directives on the establishment of different financial incentive schemes³.
 26 It provided a lot of support in the form of financial and fiscal incentives. For instance, the
 27 fiscal incentives provided have grown from ETB 176mill in 2003 to ETB 1.12bill in 2011, and
 28 financial incentives reached ETB 1.215bill in 2008 from ETB 362mill in 2005.

29 This led to changes in the export sector performance. For instance, the real value of export
 30 earnings increased from ETB 5 billion in 1973-1978 to ETB 39.7 billion from 2000/1-2006/7.
 31 In terms of diversification, although coffee is still the dominant export item, the share of non-
 32 coffee agricultural exports and major manufacturing export commodities (leather and leather
 33 products; textile; and agro processing products) has increased remarkably and reached
 34 63.7% during the same period. Furthermore, the export destination countries increased from
 35 68 in 1997 to 126 in 2011.

36 Notwithstanding the foregoing facts, the export performance of the country is still low as
 37 compared to other African countries [2] & [3]. Export goods in Ethiopia are about nearly 7%
 38 of GDP compared to an average of 30% of GDP in Sub Saharan Africa. Besides exports per
 39 capita is still low; only \$24 in Ethiopia compared to \$200 in sub Saharan Africa and \$850 in
 40 developing Asia. Although there is improvement in export diversification, there still exists a
 41 value added gap in export goods as far as majority of the exports are of primary goods [3].

42 This induces an intriguing question as to whether the export incentive schemes have
 43 robustly helped in improving the export sector in the country. This paper, therefore, aims at
 44 examining the trend of both export & export trade incentive schemes and the effect of such
 45 incentives on export growth in Ethiopia. A time series econometric model is used to check
 46 the nexus between export trade incentives and export growth in Ethiopia over a period 1997-
 47 2011 by regressing export value, volume and diversification against variable that collectively
 48 capture financial and fiscal incentives. To the best of the researchers' knowledge, there is no
 49 any empirical study made so far that shows the relationship between export trade incentives
 50 and export growth in Ethiopia. Therefore, this study is designed to fill this void in literature.

51 The findings reveal that fiscal incentives have a statistically significant impact on export
 52 value growth. Besides, both fiscal and financial export incentives have statistically significant
 53 effect on export volume. Moreover, financial incentives have significant impact on export
 54 concentration, implying that the provision of such incentives increases export diversification.
 55 Therefore, one can deduce that export incentives (both financial and fiscal) play a great role
 56 for export growth.

57 The rest of the paper is organized as follows. Section 2 presents review of related theoretical
 58 and empirical literature, Section 3 presents data and methodology, Section 4 presents the
 59 findings; and the last section concludes.

60

² These incentive schemes are fiscal export trade incentives which include Duty Drawback scheme, Voucher scheme and Manufacturing under Bonded warehouses scheme.

³ Financial Incentives include Export Credit Guarantee scheme (Directive No.SBB/33/2002, amended latter by Directive No.SBB/41/2007,) Foreign Credit Scheme (Directive No.REL/005/2002) & Retention of Export proceed Earnings scheme (Directive No.FXD/11/1998).

2. REVIEW OF RELATED LITERATURE

2.1 Theoretical literature on Export Trade and Economic Growth

Over the last half century, there has been a crucial change in thinking in the field of development economics regarding the impact of foreign trade on developing countries. The predominant view until the 1970s was that developing countries were primarily restricted to exporting primary commodities that often faced slow demand growth. But over the time, a number of developing countries demonstrated that it was possible to produce manufactured goods capable of competing in world markets by starting with resources and labour intensive products, and then moving up the technological ladder [4].

Today the notion that exports led to foster economic growth is central to any discussion of development strategies. Hence, the export led growth strategy is part of a larger body of literature relating to “openness” to economic growth. For example, [5] suggests that an export strategy’s beneficial impact on growth is multiplied if it is complimented with trade liberalization. Extensive researches provide the rationale for pursuing an Export-Led Growth (ELG) theory. In this regard [6] and [7] indicated that exports can be a deriving engine for an economy. Exports influence and contribute to higher growth and economic development through a variety of channels; through generating earnings of foreign exchange, reaping economies of scale and specialization and accessing new technology.

Similarly, [8] showed that a buoyant export sector enlarges the domestic market so that firms achieve economies of scale and lowers unit costs of a product. This may be expected because an export sector allows a country to trade along its lines of comparative advantages, specifying not only in commodities that used its abundant factors intensively, but also where its per unit cost are lower. Similarly, [9] pointed out that exports lead to increased real GNP; loosen a binding foreign exchange constraint and allow increase in productive intermediate imports and hence result in the growth of output; and also result in enhanced efficiency and thus may lead to a higher output.

In general, all the above theoretical studies indicate that export plays an important role in igniting and sustaining rapid economic growth through efficient resource allocation, employment generation, relaxing the foreign exchange constraints, exploiting economies of scale, improving technological spillovers and allowing countries to trade along their lines of comparative advantages.

2.2. Empirical Literature on Export Trade and Economic Growth

The positive association between export openness and economic growth is reported in many empirical studies. For instance, [10] has conducted a study in the ‘Growth miracle’ countries of Asia⁴ using time series data from 1955-1982. He showed that there is a significant statistical association between export and economic growth. Similarly, [11] analyzed the economic growth of East Asian countries from 1965-1991, and found out that export enabled the countries’ economy to grow at an annual average between 4-8%. Besides, [12] examined the causal relationship between economic growth and export of developing Asia and Latin America over 1965-1995, and showed that there is significant positive relationship between export and economic growth. This is also confirmed by [13] who, based on data from India, Pakistan, Philippines, Malaysia, and Thailand from 1973-1993, finds a strong relationship between export and economic growth.

⁴ These countries include Hong Kong, Korea, Singapore and Taiwan.

[14] have examined a group of countries over the period 1970-1989 and have found out that open developing countries grew 4.5% while closed developing economies grew only by 0.7%. Furthermore, [15] finds that more export oriented middle income countries grow faster than relatively less export oriented economies. [16] also indicated that the recent fast growth of China and India is partly explained by the expansion of their exports.

Empirical studies on African countries also reveal similar results. For instance, [17] and [1] conducted a study on 21 Sub Saharan Africa countries and found that economic growth was achieved due to agricultural export in nine countries and manufactured product export in three countries. In sum, the foregoing empirical studies largely confirm the postulate that export drives economic growth.

2.3. Export Incentives and Export Growth

Governments provide export incentives in order to keep domestic products competitive in the global market. According to [18], the central aim of export incentives is to contribute to the overall economic development of a country by means of increasing the total merchandise exports of the country and the diversification of the structure of such exports, not only in terms of products but also export market/destinations.

Countries sometimes resort to various export promotion schemes or request special and differential treatment for their exporters to overcome export barriers in international trade. Such barriers include existence of high cost of production of exportable products due to tariffs and other related costs. Tariffs on imports create a disincentive to export by directly raising the domestic price of imports relative to exports by reducing the price of exports relative to imports. According to [19], reducing import restrictions in the form of tariffs is a policy option that both developing and developed countries could implement in order to improve incentives to export. Export trade incentives can be broadly grouped into three categories as Fiscal Incentive, Financial incentive and non-monetary incentives⁵. Each of these incentives is discussed in ensuing paragraphs.

Fiscal Incentives

It includes all measures taken to reduce disincentives to export efforts caused by duty or other charges on exports, duties on imports required for production of exports; duties on imports of materials and components required for the production of manufactured goods as well as a duties on production that add unnecessary cost to the selling price of export products[18]. This group consists incentives including tax concessions on export earning; exemption/reduction of export duties; accelerated depreciation methods for export industry; temporary admission of materials incorporated in export goods; exemption, rebate or refund of sales tax, purchase tax and internal taxes and adjustment in export tariffs.

According to [20], fiscal incentive schemes such as duty drawback and exemptions, manufacturing under bonded warehouse and establishment of export free zones are considered 'compensatory' which are targeted to eliminate disincentives raised from economy's trade, investment and exchange regimes by assuring equal footing with foreign competition in terms of access to inputs at world market prices. However, the duty-drawback schemes that countries employ in an attempt to remove the bias against exports due to tariffs on imported intermediate inputs often do not eliminate the bias completely. [19] stated that this is justified based on the ground that the scheme is costly to administer; reduces government revenue, leading to increase in distorting taxes which themselves might

⁵ Since this research emphasized on the two types of incentives (fiscal and financial), the researcher didn't discuss the non-monetary incentives in this paper.

discourage exports; and drawbacks do not reverse the decline in the relative price of exports as a result of a higher tariff.

Financial Incentives

These are designed to make export business attractive through compensation for price disadvantage resulting from internal regulations that are not oriented towards export promotion [18]. Such category of incentives includes: Direct/indirect Cash subsidies; Export credit facilities for pre-shipment and post shipment transactions; Special foreign exchange allocation and remission of tax normally chargeable on profits. According to [21] and [22], financial access through affordable interest rate enables exporters to eliminate their financial constraints.

[20] described financial incentives as 'autonomous' and 'complementary' measures that are aimed at providing special incentives for exporting activities that are not necessarily related to any disincentive that would be associated with the prevailing trade, investment and exchange rate regimes. Furthermore, [23] argue that financial subsidies help correct allocative distortions created by poor credit markets, and therefore can boost export growth.

2.4. Empirical evidence on the role of Export Incentive Schemes

The most compelling piece of evidence in support of incentives is that the vast majority of manufactured exports in the successful Asian economies utilized at least one of the incentive facilities. These countries have provided different incentives including preferential financing, promotion subsidies, tax incentives, subsidized infrastructure, and foreign investment incentives [24].

[25] and [26] have indicated four elements for the successful export push strategies in Asian countries: access to imports at world prices, provision of export financing to encourage the expansion of new export activities; market penetration strategy through export subsidy and through the creation of international trading companies. These countries pursued strictly result-oriented policies; if a scheme did not generate results in the form of higher exports in a relatively short period of time, it was promptly canceled. Secondly, exports provided a performance-based criterion for allocating credit, encouraged the adoption of international standards, and accelerated the diffusion of technology [20].

In Africa, countries endeavored to mimic successful Asian countries. For instance, in Kenya, the government subsidized credit through specialized financial institutions and commercial bank, provisions of such export incentives as Export Compensation Scheme (until 1989), Manufacturing under Bonded Warehouse (introduced in 1989), export promotion zone (introduced in 1990) and Import duty exemptions schemes directed at exporters who were not using the export compensation scheme was introduced [22]. In Zimbabwe, the government introduced such schemes as Inward Processing rebate scheme (similar to manufacturing under bond) and Duty drawback scheme. In Nigeria, the export assistance and programs of the government are largely based on the government's assistance and fiscal policies which included incentives such as currency retention scheme, manufacturing under bond, duty drawback, export credit and insurance scheme, export development fund and the like [6].

However, the effort did not bear as much fruit either due to complexity of procedures; long delays in getting some of the incentives; were limited access for such incentives [22]; and poor implementation of incentive policies and programs [27]. This is confirmed by [20] who finds that the implementation of economic wide incentive schemes in many low income

194 countries has been flawed due to inadequate development of necessary instruments,
195 institutions and mechanisms.

196 According to [22] in countries (including Africa) where money and financial market are not
197 well developed and are highly segmented, exporters can't enjoy neutral status without a
198 special export financing system. These places exporters at a disadvantage compared to
199 both foreign competitors and local beneficiaries of credit rationing, and make it harder to
200 exploit the export capabilities of developed countries.

201

202 **3. DATA AND METHODOLOGY**

203 **The data**

204 The study used secondary data on export and incentives collected from Ethiopian Revenue
205 and Customs Authority (ERCA), National Bank of Ethiopia (NBE), Development Bank of
206 Ethiopia (DBE) and Ministry of Industry (Mol). The export data of the country from 1997-
207 2011 and the fiscal incentives data from 2003-2011 were collected from ERCA data base.
208 Data related to financial incentives from 2005-2011 were collected from NBE and DBE.
209 Furthermore, data on the number of fiscal incentive beneficiaries was collected from Mol.

210

211 **Methodology**

212 This study employs a combination of methods including trend analysis, correlational, and
213 time series econometric analysis.

214 **Definitions of Variables**

215 The dependent variable of the study is Export Growth, which is sub divided in to three
216 variables: Export value, Export volume and Export concentration. Export value is defined as
217 the value of annual export expressed in local currency (ETB). Export volume is the volume of
218 commodities exported per annum measured in terms of kilograms. Besides, export
219 concentration is measured using Herfindahl Hirschman Index⁶. These three dependent
220 variables are believed to be affected by fiscal and financial incentives. Fiscal incentive is the
221 aggregate monetary incentive provided to exporters annually under duty drawback scheme
222 (DDB), voucher scheme (VS) and manufacturing under bonded warehousing (MBW). On the
223 other hand, financial incentive is the amount of export credit guarantee (ECG) provided per
224 annum.

225 **The model**

226 The following models are formulated assuming that the effect of export incentives on
227 dependent variables is carried out in a production function framework. Hence,

$${}^6 \quad \text{HHI} = \frac{\sum_{i=1}^n S_i^2}{n}$$

Where - S_i^2 is the square of the export earning share of commodity i , measured by dividing the export earning of that commodity to the total export earnings and ' n ' is the total number of export commodities.

$$\text{EXPG} = f(\text{FISCI}, \text{FINI}) \dots \dots \dots (1)$$

229

230 Where, EXPG is the export growth of the country expressed in terms of local currency
 231 (ETB); FISCI is the amount of fiscal incentive; and FINI is the amount of financial incentive.
 232 Therefore, from the above equation, the following econometric models are derived in order
 233 to examine the effect of export incentive on export growth;

234

$$\text{EXPVAG} = \alpha + \beta_1 \text{FISCI} + \beta_2 \text{FINI} + e \dots \dots \dots (2)$$

236

$$\text{EXPVO} = \alpha + \beta_1 \text{FISCI} + \beta_2 \text{FINI} + e \dots \dots \dots (3)$$

237

$$\text{HHI} = \alpha + \beta_1 \text{FISCI} + \beta_2 \text{FINI} + e \dots \dots \dots (4)$$

238

Where,

239

EXPVAG = is the amount export value in ETB at constant prices.

240

α = is the constant term

241

EXPVO = is the amount of Export volume in kilogram

242

β_1 & β_2 = are the slope/coefficients to be estimated

243

FISCI = is the amount of fiscal incentive in ETB

244

FINI = is the amount of financial incentive in ETB

245

HHI = is export concentration index

246

e = is the error term

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248 Therefore, based on the above model estimations, the long run causality among the study
 variables is examined empirically.

249 4. RESULTS AND DISCUSSION

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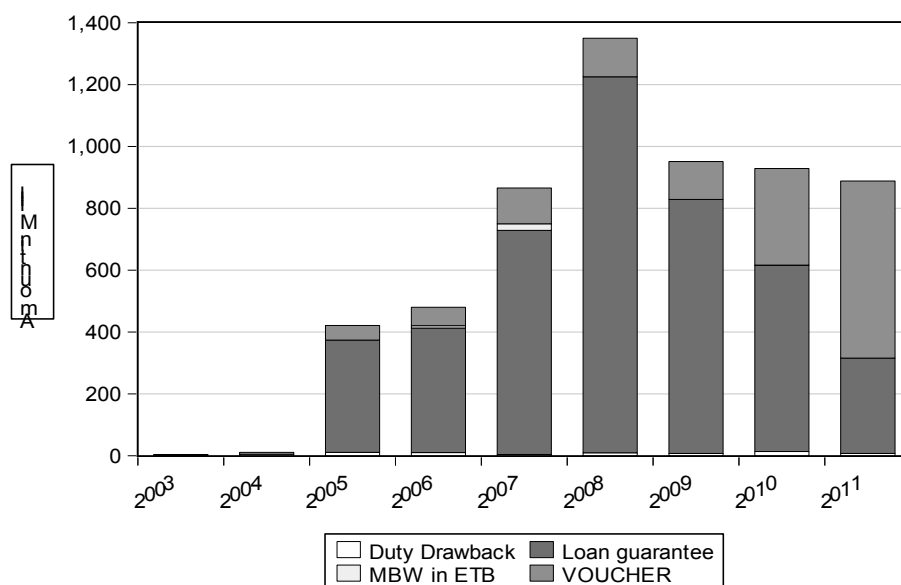
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4.1 Export Trade Incentives in Ethiopia

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Export trade incentive schemes in Ethiopia consist of fiscal and financial incentives, which
 253 include Duty drawback(DDB), voucher(VC), manufacturing under bonded
 254 warehousing(MBW) and export credit guarantee schemes(ECG). The export credit
 255 guarantee has proved the most important incentive to exporters as evidenced by the
 256 magnitude of loan extended via this scheme, which excels all the fiscal incentives combined.
 257 From the fiscal incentives, over 90% is provided through the VC while the remaining is
 258 divided between DDB,MBW.

Fig 4.1 Trends of export incentives



259

260

Source: own computation from ERCA's database.

261

As shown in the above graph, the trend of revenue forgone through the voucher scheme has an increasing pattern ever since its introduction. It was only a little over ETB 1.6 million in 2003 and reached to over ETB 572.2 million in 2011. The amount of revenue forgone in the form of drawback over entire study period is over ETB 67.4 million. With a total amount of revenue of ETB 29.1 million, MBW is the least functional export incentive scheme in Ethiopia.

267

The ECG scheme has been introduced with the aim to improve the export capacity of exporters by providing pre-shipment and post- shipment financing. The scheme was first introduced in July 1999 but it was not functional until 2003 after the scheme was re-established through NBE directive no. SBB/33/2002. The scheme operates in such a manner that the National Bank of Ethiopia⁷ guarantees loans secured by exporters from banks. The total of over ETB 4.395 billion has been provided to exporters under export credit guarantee scheme, the highest loan provision is registered in 2007, which amounts over ETB1.215 billion.

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4.2 Trend of Export Performance and Export Incentives in Ethiopia

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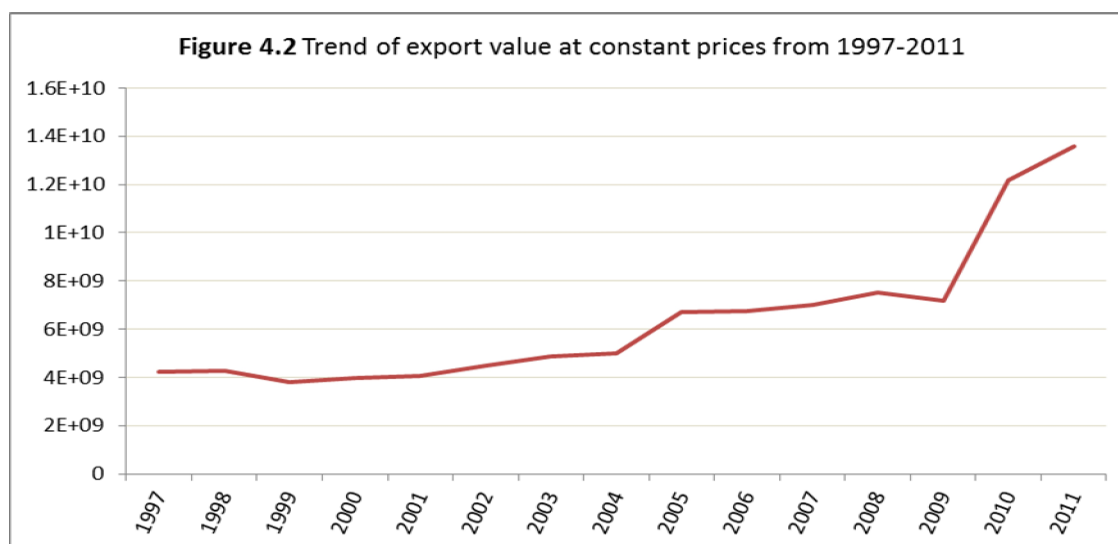
4.2.1 Trend of Export growth by value

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As depicted in fig 4.2, the trend of export value growth of the country shows an increasing pattern despite some fluctuations over the study period.

278

⁷ Operation of the credit guarantee scheme transferred to the Development Bank of Ethiopia beginning July 2007.



279

280

Source: Own computation based on ERCA's export data

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As shown in the above figure, the export value of the country has increased from ETB 4.22 billion in 1997 to birr 13.58 billion in 2011, and it has been growing at annual average of 22%. The highest annual export growth was recorded in 2010(69.8%) and the lowest in 1999 (-10.9%). Furthermore, the computed average export per capita during the period is ETB 144. The highest export per capita is recorded in 2011 amounting for ETB 507 and the lowest amount of ETB 55.5 in 1999. On the other hand, the computed average share of total exports to the Gross Domestic Product (GDP) of the country during the period is only 7%, the highest share is registered in 2011 accounting for 10% and the lowest share is 6%. This shows that the contribution of exports to the total GDP of the country is still very low.

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4.2.2. Trend of Export Composition/Diversification

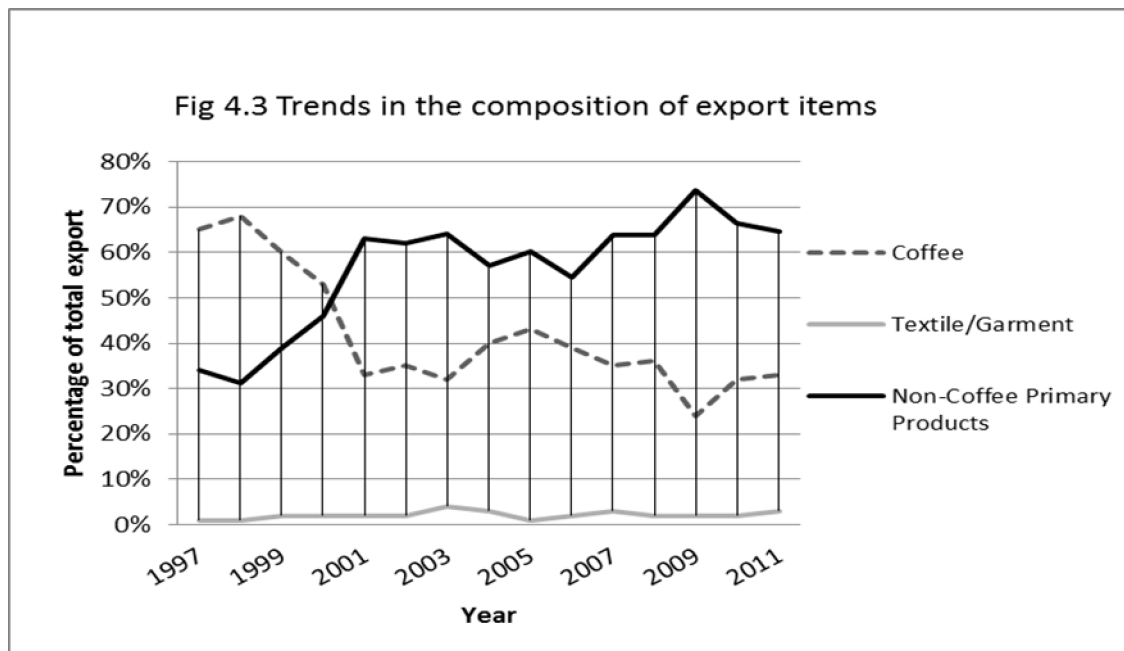
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Historically, Ethiopia is known with the export of few primary commodities. Even today, the country generates the lion's share of its foreign currency from few primary commodities such as coffee, cereals, pulses, oilseeds and hides & skins. However, as depicted in fig 4.3, additional export items have been introduced leading to a sharp decline in concentration.

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Source: Computed based on ERCA's export data

297

As shown in figure 4.3 above, coffee is the single most important export item in Ethiopia comprising over 60% of exports in 1997 and a little over 30% in 2011. A continuous decline in the share of coffee evidences introduction of various other export commodities into the sector. This is also revealed using HHI which shows that the export concentration of the country has improved from time to time. HHI was about 0.52 in 1997 while plummeted to 0.18 in 2011

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4.2.3. Trend of Export volume

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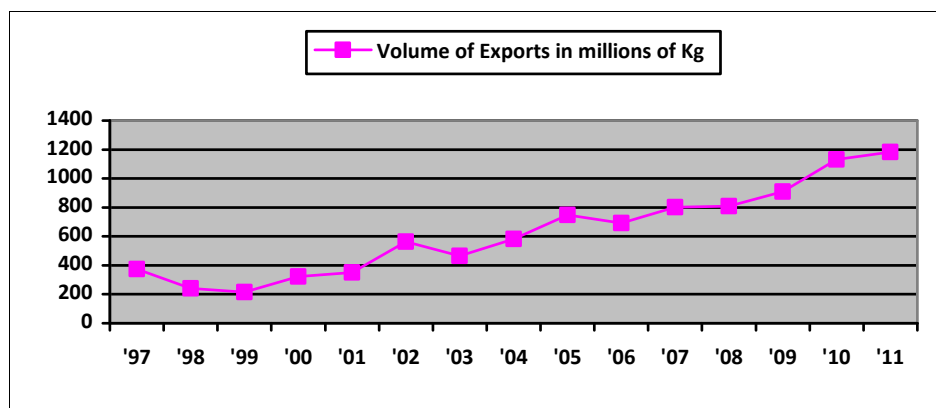
Volume of export has been growing significantly leading to increase in the country's export revenue over the study period. Figure 4.4 shows how the volume of export has changed during the period.

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Figure 4.4 Trend of export volume



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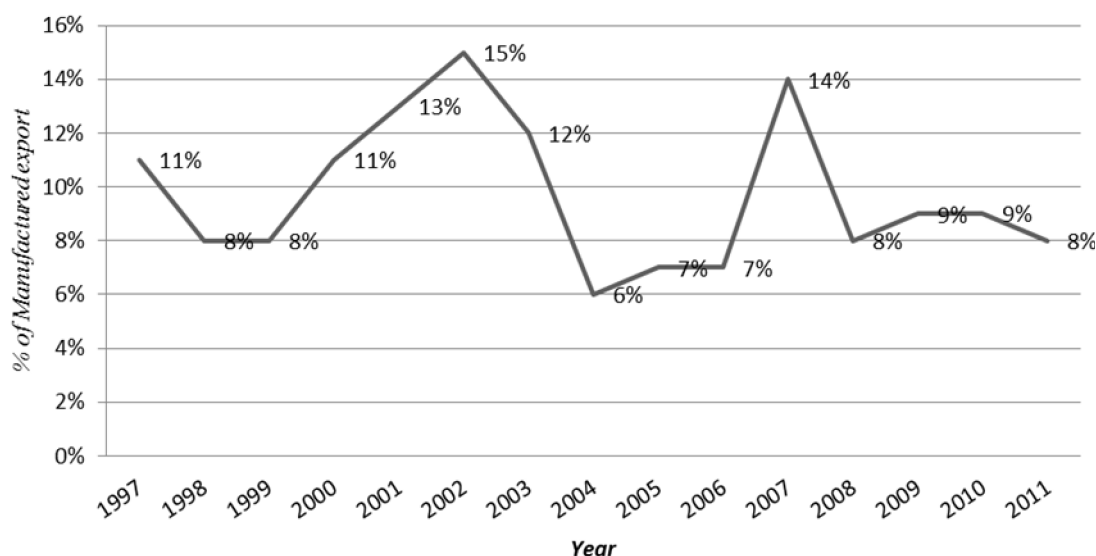
Source: Own computation based on ERCA's export data

310 As shown in figure 4.4, the volume of export has increase substantially during the study
311 period. The average export volume is 625.7 million kilogram with annual growth rate of 11%.

312 4.1.3.4. Trend of Value Added Export Products

313 Ethiopia exports predominantly primary goods, mostly agricultural products. The level of
314 value added manufactured export item is very minimal. The trade liberalization policy the
315 country pursues allowed establishment of different private firms that are engaged in the
316 export of semi-finished and finished products including leather and leather products, textile
317 and garment products, steel products, and agro-processing products. However, the
318 contribution of these items to export earnings is insignificant compared to the traditional
319 export items. The following chart shows the trend of manufactured export performance
320 from 1997-2011.

Fig 4.5 Trend of Manuafactured Export over the period 1997-2011



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322

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Source: Own computation based on ERCA's export data

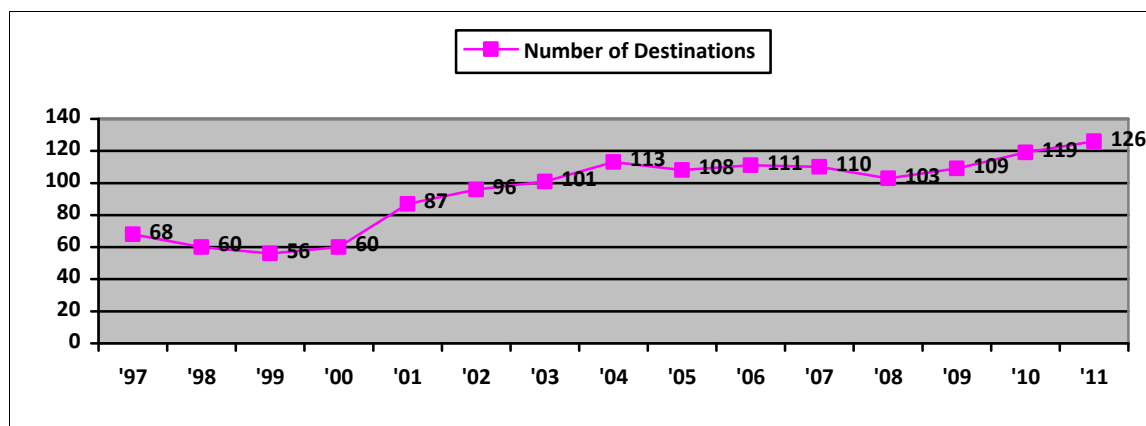
324 As shown in Fig 4.5, the share of manufactured exports from the total merchandise export is
325 small, with average share of only 10%. The share of manufactured export value to the GDP
326 of the country is very small, not exceeding 1%. This shows that the country's export heavily
327 depends on non-manufactured/primary commodities.

328 4.2.5. Trend of Export Destinations from 1997-2011

329 Market for the country's export has expanded due to international and regional trade pacts.
330 For instance, Ethiopia is the member of Common Market for Eastern and Southern Africa
331 (COMESA), have preferential market access with USA under African Growth Opportunity Act
332 (AGOA) and also with the European Union under the trade opportunity of Everything But
333 Arms (EBA). The effect of all of this is increase in access to various foreign markets. This is

evidenced by the fact that the number of export partner countries increased from 68 in 1997 to 126 in 2011.

Figure 4.6 Trend of Export Destinations from 1997-2011



Source: Based on ERCA's export database

As depicted in figure 4.6 above, the number of export partners has been gradually increasing over the study period. The average number of destination countries during the period is 95. The number of destination countries was 68 in 1997, of which 23 were in Asia, 21 in Africa and Europe each, 4 in North America and Australia, and no destination in Latin America. On the other hand, of the total 126 destinations in 2011, 43 were located in Africa, 39 in Asia, 29 in Europe, 8 in Latin America, 5 in Central & North America and 2 in Australia.

4.3. Empirical Analysis on the Effect of Export Incentives on Export Growth in Ethiopia

4.3.1 Correlation Test of Variables

The relationship among variables in the study is given in the correlation matrix below.

Table 4.1 Correlation results among the study variables

Variables	EXPVA	EXPVO	FIN	FISCI	HHI
EXPVA	1				
EXPVO	0.8802*	1			
FIN	0.4611***	0.6808*	1		
FISCI	0.9859*	0.8544*	0.4179	1	
HHI	-0.5204**	-0.7512*	-0.5903**	-0.5028***	1

*Denotes significance at 1% level, **Denotes significance at 5% level, ***Denotes significance at 10% level

As depicted in table 4.1 above, there is very strong positive correlation between export value & export volume and Fiscal incentives. On the other hand, financial incentives are weakly correlated with export value, but it has a strong positive correlation with export volume. This confirms [28] who also found that export incentives and export growth are positively correlated at a statistically significant level. Besides, the correlation between HHI and export

incentives (both financial and fiscal) is found to be negative and statistically significant. However, since correlation results do not necessarily suggest causal relationship among the variables under study; thus the causality of these variables on export growth is tested in the following section.

4.3.2. Econometric time series analysis

Diagnostic Test results

As explained by [29], time series data is stationary if its mean and variance are constant overtime and the covariance between the two time periods depend on distance or lag. Stationarity of the variables is tested using Augmented Dickey-Fuller (ADF) approach, and the results shows that variable are stationary at second difference (see Appendix A). The Co-integration Test for Long-Run Impact of Export Incentives on export growth has been conducted and the result suggests that incentives derive export growth over the long run too.

Time series regression results

The regression estimation result shows that fiscal incentives have a statistically significant impact on export value growth. This implies that, in order to increase export earning, exporters should be provided with different fiscal incentive schemes. Such causality can also be reflected by the strong positive correlation between fiscal incentives and export value growth. However, according to the regression estimation, financial incentives do not have a significant effect on export growth.

Table 4.2 Regression result of the effect of Export incentives on Export value.

Variable	Coefficient	Stand. error	T-value	T-probability
Constant	4.42E+09	2.47E+08	17.889	0.0000
FISC	16.55054	1.329625	12.44752	0.0000
FIN	1.78418	0.551246	2.0670	0.0610

Adjusted $R^2 = 0.94$

Table 4.3 Regression result of the effect of Export Incentives on export volume

Variable	Coefficient	Stand. error	T-value	T-probability
Constant	4.16E+08	41536949	10.011	0.0000
FISC	1.283844	0.2234	5.745	0.0001
FIN	0.302366	0.0926	3.2636	0.0068

Adjusted $R^2 = 0.83$

Table 4.4. Regression result of the effects of Export incentives on export concentration

Variable	Coefficient	Stand. error	T-value	T-probability
Constant	0.368996	0.03447	10.70	0.0000
FISC	-2.39E-11	1.85E-11	-1.291	0.2210
FIN	-1.47E-10	7.69E-10	-1.9160	0.0794

Adjusted $R^2 = 0.33$

As shown in table 4.2, change in export value is explained by both fiscal incentives and financial incentives. This implies that boosting exporters' access to credit through export credit guarantee and offering fiscal incentives in the form of duty drawback, Vouchers, and Manufactured Bonded Warehousing helped in expanding export value. And, as shown in table 4.3, both fiscal and financial export incentives have statistically significant effect on export volume. This indicates that to increase in export volume, exporters should be provided with different fiscal incentives and export financing at preferential interest rate. Of course, an increase in export volume would eventually lead to an increase in export earnings.

Regarding the regression result on the effect of export incentives on export concentration (as shown in table 4.4 above), the coefficient of both fiscal and financial incentives is negative, implying that the provision of such incentives reduces export concentration or increase export diversification. While financial incentives have a statistically significant effect on export diversification, fiscal incentives do not. This empirical analysis shows that to diversify export, the government should provide adequate financial incentives to the export sector. Moreover, consideration of other factors should be made in order to promote export diversification in the country. This result is consistent with the findings of [30] that stresses on the provision of financial incentives to exporters to improve financial constraints of exporters and hence accelerate export diversification in the country.

In sum, the above empirical findings are quite important. They provide a better understanding of the positive role of fiscal and financial incentives on export value, export volume and export diversification. This result is consistent with different theoretical literatures including [18]. Hence, Ethiopia should properly implement export incentive schemes to improve its overall export performance.

4. CONCLUSION

This study has attempted to examine the effect of export incentives on export growth in Ethiopia over the period 1997 to 2011. The findings suggest that the country's export earning showed a substantial increase since introduction of the incentive schemes. Despite the fact that the country's export earning is predominantly from few primary commodities such as coffee, cereals, oilseeds, pulses and hides & skins, the country's export diversification strategy has borne fruit during the study period. This is evidenced by a decline in export concentration Index (HHI) from 0.41 in 1997 to 0.21 in 2011.

The study revealed that there was no significant improvement in value added exports over the study period. Export of manufactured goods constituted, on average 10% of the total export and it grew at average annual rate of 25%, implying that the country's exports are still

dominated by non-manufactured export items. The study also shows that the market access of the country's product has increased. However, the share of the total merchandise export revenue to the GDP is only about 10%. This implies that unlike the developed Asian countries, the role of exports on economic growth is insignificant in Ethiopia.

We found that there is positive relationship between export growth and export incentives, and our time series econometric analysis revealed that export value growth is partly driven by fiscal incentives. Besides, both fiscal and financial incentives have a significant effect on export volume. Moreover, financial incentives have significant impact on export concentration, implying that the provision of such incentives increase export diversification. In general, export incentives explain much of the growth in export earnings achieved since 2003. This suggests that the country will achieve robust results if it continuous to provide the incentives in a more focused manner. A lag in manufactured export would be corrected by accelerating industrialization; otherwise, it would be naïve to expect manufactured export to dominate export earnings without having a robust industrial sector.

COMPETING INTERESTS

We declare that no competing interests exist.

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