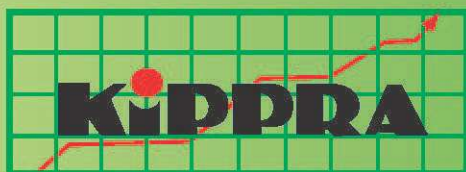


Discussion Paper Series



The KENYA INSTITUTE for PUBLIC
POLICY RESEARCH and ANALYSIS

Enhancing Competitiveness of Kenya's Exports in the Regional and International Markets

Madrine Affudo, John Karanja, Kenneth Malot, Mohamed
Ramadhan

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*Madrine Affudo, John Karanja, Kenneth Malot,
Mohamed Ramadhan*

Kenya Institute for Public Policy
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Abstract

The purpose of this study is to analyze the competitiveness of Kenya's export products, both regionally and internationally. Kenya recognizes the significance of exports in achieving its objectives, as evident in the Kenya Vision 2030 and the National Trade Policy 2017, which aims to make the country a competitive export-led economy. Data from the International Trade Centre, covering a 21-year period (2001-2022) under the Harmonized System of Classification (HS2 digit code and HS6 digit code), was used. Using the Revealed Comparative Advantage index, the study found that Kenya increased the number of products with comparative advantage in the regional and international markets between 2001 and 2022 across the several trade regimes. However, the rise of competitive products was primarily in the agricultural sector, underscoring the importance of agriculture as a source of export products. Additionally, Kenya lost export competitiveness mostly for non-agricultural products in these markets, highlighting the need to develop the non-agricultural sectors in Kenya. Generally, Kenya's export products remained competitive across different markets. Within the EAC, manufactured articles and fertilizers saw an upswing in competitiveness, reflecting a positive trend across regimes with a few products such as raw hides and skins (other than furskins) and leather slightly decreasing in their competitiveness. The introduction of the Simplified Trade Regime (STR) in 2010 by COMESA has notably facilitated cross-border trade, leading to increased competitiveness in the categories of animal and vegetable fats and oils. In contrast, certain agricultural products that are exports priority in the Bottom-up Economic Transformation Agenda (BETA), such as coffee and tea, witnessed a decline. As a member of the African Continental Free Trade Area (AfCFTA), Kenya's comparative advantage in exports of coffee, tea, maté, and spices has shown resilience in the Rest of Africa. The European Union market favours more the live trees and other plants, bulbs, roots, cut flowers, and ornamental foliage. Finally, for the United States of America, strategic negotiations within the AGOA framework are crucial as textiles and coffee remain competitive as opposed to the other markets. These findings point to the necessity of supporting agricultural products by providing targeted incentives and programmes to revive the products that have lost competitiveness, such as cotton, raw hides, and skins. The BETA envisions value addition to enhance export products with competitiveness, which are mostly primary agricultural products. Additionally, there is a need to diversify the products and support the non-agricultural sectors to produce items and develop strong strategic frameworks to enhance market access across the region, EU, and US.

Abbreviations and Acronyms

AfCFTA	African Continental Free Trade Area
AGOA	African Growth and Opportunity Act
ASEAN	Association of South Asian Nations
CU	Customs Union
COMESA	Common Market for Eastern and Southern Africa
EAC	East Africa Community
EBA	Everything But Arms
EPA	Economic Partnership Agreement
EPZ	Export Processing Zones
EU	European Union
GSP	Generalized System of Preferences
HS	Harmonized System
ITC	International Trade Centre
KITP	Kenya Industrial Transformation Programme
NEDPS	National Export Development and Promotion Strategy for Kenya
NRCA	Normalized Revealed Comparative Advantage
OLS	Ordinary Least Squares
PTA	Preferential Trade Area
RCA	Revealed Comparative Advantage
ROA	Rest of Africa
RSCA	Revealed Symmetric Comparative Advantage
RTA	Relative Trade Advantage
SCT	Single Customs Territory
SEZ	Special Economic Zones
SRC	Spearman Rank Correlations
STIP	Strategic Trade and Investment Partnership
STR	Simplified Trade Regime
US	United States

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1. Introduction

The ability of export products to access available markets is a key factor in accelerating the economic growth of developing countries. As a result, a country's export competitiveness is a prominent policy debate in academia and the policy environment. International organizations such as the World Bank, the International Monetary Fund, and the United Nations have been at the forefront of promoting export competitiveness for developing countries. These efforts have resulted in a call for the elimination of trade barriers between countries through trade agreements, and a reorientation of strategies towards regional and global integration (World Bank, 2020).

The importance of Kenyan exports is enshrined in the Kenya Vision 2030, which recognizes international trade as a critical driver of economic growth, while the National Trade Policy (2017) aspires to transform the country into a competitive export-led economy. To achieve this, Kenya has pursued trade liberalization by increasing market access for Kenya products in the regional and international markets.¹ As a result, Kenya is a member of the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA) and the African Continental Free Trade Area (AfCFTA), giving Kenyan exports duty-free or with preferential tariffs' access to the regional market.

Kenya has taken steps to access international markets through bilateral trade agreements and economic partnership agreements with the United States and the European Union. These two regions are important export markets for Kenya. The United States, for instance, accounts for 9 per cent of Kenya's exports. This makes the US a significant trading partner and the second-largest export market for Kenya, after Uganda. Kenya has been able to access the US export market through the Africa Growth Opportunity Act (AGOA) framework, established in 2000. In addition, in 2023, Kenya concluded the Economic Partnership Agreement (EPA) with the EU to further explore international markets. The goal of this EPA is to offer Kenyan export products tariff-free and quota-free access to the European Union, thereby increasing their market access. As a result, the purpose of this study is to evaluate the competitiveness of Kenya's export products in regional and international markets.

To take advantage of the regional export markets created by the AfCFTA, Kenya needs to examine the competitiveness of its export products. This is necessary to diversify its range of export products and expand its export base. The country is currently negotiating the Strategic Trade and Investment Partnership Agreement (STIP) with the US, and the Kenya-EU EPA. However, expanding market access without considering the competitiveness of available products will limit the country's potential to grow its exports despite having access to these markets.

It is evident that Kenya is expanding its market access through trade liberalization. Therefore, an analysis of the competitiveness of its export products is necessary

¹ Kenya's trade liberalization of the 1980s and 1990s: Policies, impacts, and implications. https://carnegieendowment.org/files/kenya_background.pdf

to help the country tap into the available regional and international markets. Consequently, the study aims to analyze the competitiveness of Kenyan export products in the regional and international markets using the Balassa Index of Comparative Advantage. The EAC, COMESA, Rest of Africa, the EU, and the USA markets are identified as key markets of interest to Kenya export products in the study for analysis to examine both the current and the previous competitive export products in each of the markets and bring out the products that have/have lost competitiveness from 2001 to 2022. This will provide evidence to policy makers for targeted policy interventions that support sectors producing competitive products, and initiatives that could revive and enhance the country's export product competitiveness.

2. Review of Trade Reforms to Enhance Kenya's Export Competitiveness

2.1 Introduction

Trade reforms have played a crucial role in boosting exports from Kenya. Over the years, the government has implemented several policy changes to enhance the country's competitiveness in the exports market. Some of these reforms include creating a conducive business environment for exporting firms, providing frameworks for export development and promotion, and putting in place mechanisms to address the issues of standardization, quality control, and regulatory compliance. The goal of the foregoing trade reforms is to make it easier and more cost-effective for Kenya firms to engage in international trade, enhance the competitiveness of its exports, and facilitate market access. The adequacy of the trade reforms in addressing issues of export competitiveness is critical because the reforms should unlock exports competitiveness in the country's exports markets. Table 2.1 shows a review of various trade reforms agenda in Kenya that are aimed at supporting export competitiveness.

Table 2.1: Trade reforms agenda for export products competitiveness

Reform agenda	Policies/strategies	Legislation	Existing regulations	Institutions set up to push the agenda	Existing gaps
Conducive environment for exports production	None	Special Economic Zones (SEZs) Act No.16 of 2015	None	Special Economic Zones Authority	The SEZ Act of 2015 and the EPZ Act of 1990 do not sufficiently address the need for creating a conducive environment that can facilitate the competitiveness of the industrial sector, which is critical for supporting an environment that is conducive for exports competitiveness. It is, therefore, necessary for the country to have a National Industrialization Act that can provide an export competitiveness reform agenda.
	None	Export Processing Zones (EPZs) Act No. 10 of 1990	None	Export Processing Zones Authority	Review of the EPZ Act of 1990 does not address emerging issues for competitiveness of export products, and there is need for its review. The country does not have the SEZ and EPZ regulations to provide more details in the implementation of the SEZ Act No. 16 of 2015 and EPZ Act 1990. These are essential in supporting exports competitiveness of products from EPZ and SEZ.
Export Development and Promotion	National Trade Policy 2017	None	None	None	The country does not have a Trade Development Act, which is crucial in supporting and guiding Kenya's exporting firms to access global markets through incentives and contribute to the competitive export-led economy.
	Kenya's Foreign Policy 2014	None	None	None	The economic diplomacy pillar in the Kenya Foreign Policy does not adequately indicate how the country will promote exports. Review of the Kenya Foreign Policy 2014 with the aim to anchor clear policy statements on how the country can leverage foreign policy to drive Kenya's export competitiveness is necessary.

	Integrated National Export Development and Promotion Strategy	None	None	Kenya Export Promotion and Branding Agency	The Integrated National Export Development and Promotion Strategy has not been fully implemented to unlock the potential of the identified sectors. Further, the country lacks a National Export Development and Promotion Policy that could address the issues required to enhance the competitiveness of Kenyan exports.
	Kenya National AGOA Strategy 2018-2023	None	None	None	The strategy does not adequately address export competitiveness for Kenya. For instance, from 2018 to 2022, the average competitiveness index of some of the targeted key exports for Kenya, such as apparel and cut flowers, declined against the aim of the strategy.
Quality control, standardization, and regulatory compliance	None	Standards Act Cap 496	None	Kenya Bureau of Standards	Kenya does not have a national quality policy to coordinate agencies tasked with promoting quality, standardization, and technical regulatory compliance for competitive products in export markets. Additionally, the current Standards Act under Cap 496 fails to address emerging issues that require attention. It is crucial to review the Standards Act Cap 496.

3. Literature Review

3.1 Theoretical Literature

3.1.1 Porter's Theory

Porter (1980) postulates that firms or a country create competitive advantage by choosing the activities to participate in and the firm or country must outline its strategy based on cost leadership, product differentiation or focus. Under the cost leadership strategy, firms aim to produce goods or services at the lowest possible cost. Several factors, including economies of scale, technological advancements, and the availability of factor inputs, come into play in determining the optimal cost strategy. On the other hand, product differentiation focuses on enhancing the quality and uniqueness of goods or services. Porter also introduces the idea of a focused strategy, where firms or countries specialize in the production of products to achieve optimal outcomes.

Porter's framework underscores the importance of strategic choices in shaping a nation's competitiveness in global trade. By strategically selecting activities and deciding on cost, differentiation, or focus-based approaches, countries and firms can create a unique position in the global marketplace. The emphasis on cost leadership allows nations to leverage economies of scale and efficient technology utilization to produce goods and services at competitive prices. Meanwhile, the pursuit of product differentiation enables countries to excel in producing high-quality, unique offerings that can command premium prices in international markets. Additionally, the focus strategy advocates for specialization, enabling countries or firms to concentrate their resources and expertise on specific products, further enhancing their competitiveness and market presence.

Incorporating Porter's ideas into trade strategies has far-reaching implications. It empowers countries and firms to make informed decisions about their competitive positioning, which is critical in an increasingly interconnected global economy. By aligning their activities with their chosen strategy, they can enhance their trade performance, strengthen their global presence, and contribute to the overall economic prosperity of their nations. Porter's framework continues to be influential in guiding trade policies and strategies, providing valuable insights into the complex dynamics of international trade.

3.1.2 Heckscher–Ohlin (H–O) Theory

Heckscher–Ohlin's (H–O) model postulates that countries will specialize in the production of goods and services that they are abundantly endowed. As such, countries will produce and export goods and services that they are endowed and import those that they have a lower factor endowment. This approach is advanced in the Ricardian theory of international trade, which shows that when two countries have the ability to produce two products and engage in free trade, each will increase consumption by exporting the products they have a comparative advantage (Golub and Hsieh, 2000).

Consequently, the production costs for labour-intensive goods such as textiles, sporting goods, and basic consumer electronics tend to be higher compared to countries abundant in labour with lower wage rates. On the other hand, products that rely heavily on capital and require less labour, such as automobiles and chemicals, are typically more affordable in countries with plentiful and cost-effective capital. Therefore, countries with ample capital resources can manufacture capital-intensive goods inexpensively and export them to finance their imports of labour-intensive products. In the Heckscher-Ohlin theory, the crucial factor is not the absolute quantity of capital but rather the capital available per worker. Despite its apparent validity, the Heckscher-Ohlin theory often diverges from the observed patterns of international trade.

This approach emphasizes the mutual global benefits of nations focusing on exporting goods that align with their abundant domestic resources while importing what they lack. Such a strategy allows countries to tap into international markets, benefiting from flexible demand rather than relying solely on domestic consumption. As the number of participating nations and markets expand, labour costs increase, and marginal productivity diminishes. Engaging in global trade enables countries to adapt to capital-intensive manufacturing, an adjustment that would be unattainable if every nation exclusively relied on domestic sales. Furthermore, it emphasizes the importance of importing items that a country cannot efficiently produce on its own. It advocates for countries to export surplus commodities and resources while proportionately importing the resources they need. Some countries possess a relatively high level of capital, meaning that the average worker has access to an extensive array of tools and machinery to aid in their work. These countries typically offer higher wage rates, resulting in higher production costs for labour-intensive goods such as textiles, sporting goods, and basic consumer electronics compared to nations with an abundant labour force and lower wage rates.

3.2 Empirical Literature

This section presents empirical literature on product competitiveness in the export market. Gorton and Davidova (2001) define competitiveness of a country as its ability to increase their trade share in the international markets due to comparative advantage at a lower production cost. According to the authors, there are two factors that underline a country's competitiveness in the international trade market, and they include a country having a price competitiveness or improved product quality. In their study, Gorton and Davidova (2001) use the DRC framework to assess product competitiveness of the Central European and East Countries (CEEC) and establish that crop production is more internationally competitive relative to livestock farming. However, there are disparities between the selected group of countries. The paper finds that crop production is more internationally competitive than livestock farming among CEEC. This line of thought is supported by the Yercan and Isikli (2007) analogy that when a country has a comparative advantage as a result of production efficiency, its production cost is lower relative to other nations. Further, comparative advantage is attained

when a country is able to efficiently produce different products resulting to higher revenue to the economy.

In the European Union (EU), Bojnec and Fertő (2014) examine the competitiveness of 27 EU countries dairy products using a revealed comparative advantage framework for the period 2000-2011. The findings show that about half of the EU member countries have enjoyed competitive dairy exports. However, the findings revealed levels of variation in relation to the levels of milk processed and for intra- and extra-EU markets. In similar work, Bojnec and Fertő (2015) examine the competitiveness of agri-food exports of EU member countries using the revealed comparative advantage framework with data for the period 2000-2011. The findings establish that majority of EU-27 countries experienced comparative disadvantage in global markets. Further, the findings reveal that majority of the EU-27 countries had a longer duration of revealed comparative advantage. However, significant disparities are realized, with The Netherlands, France and Spain agri-food products being competitive in the global market.

Relatedly, Yercan and Isikli (2007) examined product competitiveness in Turkey. They define competitiveness as a country's ability to increase its domestic and international market access due to comparative advantage at minimal production cost. Yercan and Isikli (2007) used domestic resource cost to determine Turkey's product competitiveness using annual data. The findings show that Turkey has a comparative advantage in plant products that do not exhibit economies of scale and are labour intensive.

Rifin (2010) examines export competitiveness of Indonesia's palm oil products to the regions of Africa, Asia and Europe as compared to Malaysia's. Using the market share as a measure of competitiveness, he finds that exports of palm oil from Indonesia increased in the periods of 1990-2001 and 2005-2007 due to increase in demand. Lall and Albaladejo (2004) examine China's competitive threat to other East Asia neighbouring countries by using technology and market share. They found that China and its neighbours increase their technology exports together and China is acting as an engine of export growth.

Additionally, Su et al. (2020) examine the international competitiveness of Chinese wood products using three indices of revealed comparative advantage (RCA), participation and position in global value chains (GVC). The findings show that the wood industry in China has advanced, and it now involves global value chains. Evaluation of product competitiveness has also been undertaken for dairy products. Further, the role of Chinese export products to Sub-Saharan Africa (SSA) is evaluated. Edwards and Jenkins (2014) examine how Chinese exports challenge South African exports to Sub-Saharan Africa by decomposing Chinese exports into intensive and extensive margins. They establish that Chinese exports to SSA negatively influence South African exports to the region. However, the effect is varied and is more prominent in medium- and low-technology products.

Havrila and Gunawardana (2003) examine the comparative advantage and competitiveness of textile and clothing industries in Australia by using both revealed comparative advantage and Vollrath's measure of competitiveness. The RCA shows comparative disadvantage in textile and clothing products at aggregate

level. However, there is comparative advantage in sub-groups of textile and clothing products. On the other hand, the analysis using the Vollrath's framework revealed that textile and clothing products are not competitive in the world market. Further, using the Grubel-Loyd index, the results show increase in intra-industry trade in selected textile and clothing products. The literature provides a myriad of definitions of competitiveness and there is no single definition that has been universally adopted. Vlachos (2001) elucidates that competitiveness is the ability of a country to produce goods and services that meet both demand requirements and improve the citizens welfare through increased incomes.

The competitiveness of agricultural products has also been examined among the ASEAN countries. Van Hoang (2020) examines the agricultural competitiveness of ASEAN agricultural produce in the world market and he analyses the dynamics of the indicators and consistency of the indices. Using data for the period 1997-2015 in Revealed Comparative Advantage (RCA), Relative Trade Advantage (RTA), Normalized Revealed Comparative Advantage (NRCA), OLS and Markov switching frameworks, ASEAN countries possess higher competitiveness in products of rice, rubber, spices, vegetable fats and oils, wood, fuel wood, fish and crustacean. At the country level, the findings show that Vietnam, Thailand and Indonesia are highly competitive relative to Brunei, Singapore and Cambodia. Further, the findings reveal that the countries retain ranking of strong competitive products and achieving improved output from regional integration.

Oh and Kim (2015) examine the competitiveness of Indonesia wood exports using the revealed symmetric comparative advantage (RSCA), Spearman rank correlations (SRC), product mapping and constant market share frameworks. Using the RSCA, the findings reveal that Indonesia has a comparative advantage in wood products while the SRC show no structural shift in comparative advantage for the period 1991-2010. The findings using the CMS show that increase in wood exports from the country were as a result of an increase in world exports.

Popescu et al. (2017) examines the competitiveness of exports of agro-food products from Romania using the Balassa index. They found that barley, maize, triticale, wheat, poultry meat, oil seeds and tobacco performed relatively well in the period under review. French (2017) uses several measures to evaluate the importance of revealed comparative advantage in policy analysis. The analysis reveals that different measures offer heterogeneous results, as some show insights on patterns of comparative advantage while others show how products and countries are competitors in a given market.

Overall, these empirical studies contribute to the understanding of product competitiveness by investigating its components, the role of comparative advantage, and the impact on trade dynamics in various countries and sectors. The reviewed studies concentrate on specific products or product categories in limited regions/countries such as the ASEAN region, Indonesia, Romania, among others, potentially missing a comprehensive overview of competitiveness in diverse sectors and regions such as Africa and Kenya as a country. Thus, there is a significant gap to fully identify and compare the dynamic agricultural and non-agricultural competitiveness of Kenya. This is the first study to be undertaken in

Kenya and East Africa as a whole. This study provides insights into the competitive strengths of specific products from Kenya to different regions, highlighting both consistent trends and variations over time.

4. Methodology

4.1 Theoretical Framework

Comparative advantage is widely used in literature to assess a country's trade pattern of products that are competitive relative to others. According to economic theory, there are several measures of evaluating a country's product competitiveness, such as the Hecksher-Ohlion (H-O) and Ricardo's hypothesis as outlined in the theoretical literature. Importantly, a country's comparative advantage is determined by the abundance of the product as postulated by H-O framework. Indeed, H-O elucidates the ability of a country to produce and export products that they utilize lower factor inputs and import products with a higher cost of production. Although the H-O model simplifies the measure of product competitiveness, its implementation is a challenge.

4.2 Empirical Equation

Liesner (1958) proposed the concept of revealed comparative advantage, which was improved and refined by Balassa (1965). Balassa's index of comparative advantage provides information of the country's exports in global markets. In particular, the index measures revealed comparative advantage of a given product as a share of total exports of a country relative to the product exports as a share of global exports of the product. The index is given as follows:

$$BI_{ij} = (X_{ij} / X_j) / (X_{iw} / X_w) \dots \dots \dots (1)$$

Where:

BI is the Balassa Index for industry/product i of country j

X_{ij} denotes exports of industry/product i of country j

X_j refers to total exports of country j

X_{iw} the World export of industry/product i

X_w denotes total world exports.

The Balasa Index, as defined in equation 1, uses the world market as the benchmark market. Nevertheless, the research aimed to calculate RCA at the specific regions where Kenya has preferential trade agreements. This includes the East Africa Community (EAC), Common Market for Eastern and Southern Africa (COMESA), Rest of Africa (RoA), the European Union and the United States of America. To facilitate a detailed breakdown of the analysis of revealed comparative advantage at both regional and bilateral levels, we expand equation 1 by a modified RCA index that takes into account an economy's import value.

$$BI_i = ((EXP_{ij} / K) / (IMP_{ij} / K)) / ((EXP_j / K) / (IMP_j / K)) \dots \dots \dots (2)$$

Where:

EXP_{ij} is the value of the i-th group of products' export from economy K to group j,

$IMP_{ij,K}$ is the value of the i -th group of products' import from economy K to group j ,

EXP_j,K is the world exports of economy K to group j ,

IMP_j,K world imports of economy K from group j ,

i represents the product,

k represents the economy/region under analysis (Africa, EU and US), and

j represents the partner countries/region.

The Balassa/RCA Index is on a scale from (0) to infinity ranges, with (1) serving as the dividing point. Thus, it means that when a product has an RCA value below 1, it signifies a lack of export comparative advantage, whereas a value exceeding 1 signifies the presence of a "revealed" comparative advantage. It is important to note that the RCA Index does not exhibit symmetry; thus, it is not feasible to directly compare both sides of the dividing point.

The conceptual Balasa Index described earlier is highly adaptable in both product categorization and the geographical scope of the different markets. It offers the flexibility to employ different definitions of "product" to calculate the index value. In this paper, the HS-2-digit classification was used because it enables the definition of products at various levels of aggregation. Additionally, the index's versatility in terms of geographic coverage allows for the examination of relative export performance at global or regional levels.

Consequently, the Balassa Index of Comparative Advantage is used to identify products that have/have lost competitiveness in the EAC, COMESA, Rest of Africa, the EU, and the USA markets from 2001 to 2022 and further analysis of RCAs rankings to provide deep dive competitive analysis of all export products over the years, taking a case for year 2001, 2010 and 2022.

During the analysis, average RCAs were used to present the effects of various market regimes on the competitiveness of export products, such as the implementation of the EAC Customs Union (EAC-CU) in 2005, the Single Customs Territory (SCT) in 2013, and the Simplified Trade Regime (STR) in COMESA in 2010. Furthermore, the AfCFTA implementation in 2018 provides another regime of interest for Kenya in accessing the rest of Africa's export market. The ratification of the EAC-EU EPA by Kenya in 2016 and the extension and enhancement of the AGOA framework in 2015 is a crucial market regime for Kenya's access to the EU and the US markets.

4.3 Data

The study makes use of data from the International Trade Centre (ITC) database from 2001 to 2022. ITC data is classified using the Harmonized System (HS) categorization, which was developed in 1988 and is used by most countries around the world. Data for Kenya's exports categorized at HS2 digit and HS6 digit under the ITC classification covering the period from 2001 to 2022 was used. The HS 2-digit classification code was used because it contains 99 chapters on diverse

products, while HS6 digit was more disaggregated into the export products. For example, using the HS-2 categorization system, product code 25 includes salt, sulphur, earths and stone, plastering materials, lime, and cement. The study used HS-2 product categorization system in its analysis and interpreted the product export competitiveness results using the HS-2 product classification codes provided by ITC. Data for five strategic markets of interest to Kenya was obtained and analysed to identify products that have competitiveness as of 2022 and products that had competitiveness in the year 2022 but are no longer competitive in the five markets.

5. Results and Discussion

The analysis of product competitiveness of Kenya's export products encompassed five key export markets due to their strategic trade partnership with Kenya. These are the EAC, COMESA, the Rest of Africa, the EU and US markets. The study focused on Kenya's exports categorized at HS2 digit and HS6 digit under the ITC classification covering the period from 2001 to 2022.

The findings for each export are presented in the tables below, demonstrating products that are competitive ($RCA > 1$) according to the regimes, products that were initially competitive but subsequently lost their competitiveness and further analysis of RCAs' rankings to provide a deep dive competitive analysis of all export products over the years across the corresponding trade regimes. This is key to policy makers as it will support targeted interventions on two areas. First, it will demonstrate to the policy maker the key markets for Kenya with an aim of supporting the sectors producing these products. Secondly, the policy makers will be able to know which products have lost competitiveness in the export market, and this will stimulate the need to look at the sectors that have lost competitiveness over the years with targeted interventions.

5.1 Competitiveness of Export Products in the EAC Market

5.1.1 Export products that have competitiveness in the EAC market

As Kenya is a member of the East African Community (EAC), understanding which products trade most frequently from Kenya to the EAC region is crucial. The implementation of key integration initiatives, such as the East African Community Customs Union (EAC-CU) in 2005, the EAC Common Market Protocol in 2010, and other regional integration measures such as the Single Customs Territory (SCT) implemented in 2013 has significantly influenced the export competitiveness of Kenyan products in the region.

Table 5.1 provides RCA indices for the top ten products at the HS2-digit level traded in the EAC market across various regimes. Before the establishment of the EAC Customs Union (EAC-CU), products falling under "salt; sulphur; earths and stone; plastering materials, lime and cement" had an average RCA of 18.79, which increased to an average of 30.61 after the implementation of the EAC-CU. Similarly, other products exhibited a substantial increase in their RCAs, as indicated in Table 5.1.

Following the implementation of the EAC Common Market Protocol in 2010, the RCAs further increased for certain products, including "explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations," "printed books, newspapers, pictures and other products of the printing industry; manuscripts," and "miscellaneous edible preparations; and animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats". Conversely, RCAs slightly decreased for fertilizers and miscellaneous manufactured articles, among other products.

After the introduction of the Single Customs Territory (SCT) in 2013, there was a notable increase in RCAs for specific products between 2013 and 2022. For instance, "explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations" increased by 142 per cent, "printed books, newspapers, pictures and other products of the printing industry; manuscripts" increased by 156 per cent, and "miscellaneous edible preparations," which include sauces and condiments, soups and broths, prepared desserts, prepared foods, infant food, bakery and pastry products, nutritional supplements, flavouring extracts and essences increased by 152 per cent.

Based on the data presented in Table 5.1, it is evident that Kenya's competitiveness for various products has shown a positive trend over time in the EAC across different regimes, as evidenced by an increasing number of products with a revealed comparative advantage ($RCA > 1$) (Refer to Appendix 1 for detailed information).

Table 5.1: RCA indices for the top ten products in the EAC region

Code	Product label	EAC – Custom Union average (2001-2004)	EAC Common Market protocol average 2005-2009	Single Customs Territory (SCT) average 2010-2012	EA status average (2013-2022)
'25	Salt; sulphur; earths and stone; plastering materials, lime and cement	18.79	30.61	30.09	26.57
'36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0.25	2.55	4.14	10.04
'34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial ...	8.28	12.11	14.73	14.28

'15	Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats; ...	5.29	8.12	12.94	11.62
'17	Sugars and sugar confectionery	8.89	12.21	10.16	12.29
'49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, ...	0.88	3.19	4.01	8.12
'21	Miscellaneous edible preparations	1.68	1.91	2.73	6.91
'24	Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, ...	3.26	6.48	7.42	8.91
'31	Fertilizers	3.12	5.64	3.5	5.23
'96	Miscellaneous manufactured articles	3.1	4.27	2.75	2.8

Source: Authors' calculation based on ITC data

5.1.2 Export products that have lost competitiveness in the EAC market

The analysis also identified products that experienced a decline in their rankings based on the computed Revealed Comparative Advantages (RCAs). As depicted in Table 5.2, products such as cocoa and cocoa preparations, rubber, and articles thereof, and cotton exhibited the most significant drops, decreasing by 42, 38, and 30 points, respectively, when comparing the rankings across the regimes.

Additionally, several other products recorded noteworthy declines, including Articles of apparel and clothing accessories, knitted or crocheted. Of particular significance is the sub-sector of raw hides and skins, which has gained considerable attention aimed at enhancing its productivity (Refer to Appendix 2 for detailed information).

Table 5.2: Products that dropped in ranking based on RCAs in the EAC

Code	Product label	EAC– Custom Union rank 2004	EAC Common Market protocol rank 2009	Single Customs Territory (SCT) rank 2012	EAC rank 2022	Change in rank (2001- 2022)
'18	Cocoa and cocoa preparations	16	34	42	58	-42
'40	Rubber and articles thereof	29	40	43	68	-38
'52	Cotton	59	73	70	65	-30
'59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	47	77	54	75	-29
'41	Raw hides and skins (other than furskins) and leather	79	88	85	80	-26
'61	Articles of apparel and clothing accessories, knitted or crocheted	54	55	59	70	-26
'76	Aluminium and articles thereof	18	19	21	50	-26
'06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	31	41	41	59	-25

'74	Copper and articles thereof	73	48	76	81	-23
'33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	20	27	27	27	-21

Source: Authors' calculation based on ITC data

5.2 Export Products Competitiveness in the COMESA Market

5.2.1 Products exhibiting high RCA within the COMESA region

Kenya, as a member of COMESA and a key driver of the COMESA Free Trade Area, plays a pivotal role in regional trade. Therefore, it is equally crucial to comprehend which products, on average, are traded most frequently from Kenya to other COMESA countries. The COMESA region introduced the Simplified Trade Regime (STR) in 2010 that was informed and inspired by the Preferential Trade Area (PTA) created in 1982,² recognizing the substantial impact of cross-border trade on the regional economy. Comparing export data from periods before and after the implementation of the Simplified Trade Regime (STR), Kenya's products demonstrate an increased level of competitiveness across various categories.

Significantly, exports of tobacco and manufactured tobacco substitutes, whether or not containing nicotine, increased by 30.8 per cent. Soap, organic surface-active agents, washing preparations, and lubricating preparations increased by 36 per cent. Miscellaneous edible preparations, explosives, pyrotechnic products, matches, pyrophoric alloys, and certain combustible preparations exhibited an impressive growth of 311 per cent. Prepared feathers and down and articles made of feathers or of down, including artificial flowers, experienced a remarkable increase of 363 per cent. Additionally, the export of printed books, newspapers, pictures, and other products of the printing industry, including manuscripts, rose by 159 per cent.

Conversely, the competitiveness of coffee, tea, maté, and spices witnessed a decline of 40 per cent, while sugars and sugar confectionery experienced a 10 per cent decrease. These trends highlight the dynamic nature of Kenya's trade landscape within COMESA and underscore the importance of understanding product-specific dynamics for informed policy and business decisions. From the RCAs presented in Table 5.3, it is also evident that Kenya's competitiveness for most products has shown a positive trend over time in the COMESA ($RCA > 1$) in most products; for a detailed analysis refer to Appendix 1.

² Evolution-of-PTA-to-COMESA_March-2019.pdf

Table 5.3: RCA indices for the top ten products in the COMESA region

Code	Product label	Post-Preferential Trade Area (PTA) average (2001-2009)	Simplified Trade Regime (STR) 2010	COMESA status-average (2010-2022)
'09	Coffee, tea, maté and spices	71.2	63.52	40.24
'25	Salt; sulphur; earths and stone; plastering materials, lime and cement	19.89	24.09	21.05
'24	Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, ...	18.84	23.99	24.71
'15	Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats; ...	9.54	9.48	9.92
'34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial ...	8.9	13.01	12.04
'17	Sugars and sugar confectionery	10.23	6.28	9.36
'21	Miscellaneous edible preparations	1.54	2.33	6.66
'36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0.78	0.93	3.85

'67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles	2.94	3.14	6.4
'49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, ...	1.84	3.21	4.91

Source: Authors' calculation based on ITC data

5.2.2 Export products that have lost competitiveness in the COMESA market

Further analysis, as presented in Tables 5.4, revealed significant drops in the rankings of certain product categories when comparing the year 2022 with the two regimes. Notably, products falling under the categories of the milling industry, including malt, starches, inulin, and wheat gluten, and rubber and articles thereof, and raw hides and skins (other than furskins) and leather, have experienced substantial declines in their rankings within the COMESA region.

Additionally, other products that have witnessed drops in ranking include articles of apparel and clothing accessories, knitted or crocheted; cocoa and cocoa preparations; impregnated, coated, covered, or laminated textile fabrics; textile articles of a kind suitable; man-made filaments; strip and the like of man-made textile materials; wood charcoal, and cotton. For a more comprehensive understanding of the trends over the years and the movement in competitiveness, a detailed analysis in terms of Revealed Comparative Advantage (RCA) ranks is provided in Appendix 2.

Table 5.4: Products that dropped in ranking based on RCAs in the COMESA region

Code	Product label	Post-Preferential Trade Area (PTA) rank 2001	Simplified Trade Regime (STR) rank 2010	Rank 2022	Change
'11	Products of the milling industry; malt; starches; inulin; wheat gluten	7	15	46	-39
'40	Rubber and articles thereof	33	46	72	-39
'41	Raw hides and skins (other than furskins) and leather	44	89	77	-33
'61	Articles of apparel and clothing accessories, knitted or crocheted	46	63	78	-32
'18	Cocoa and cocoa preparations	23	47	54	-31
'59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	56	51	82	-26
'54	Man-made filaments; strip and the like of man-made textile materials	54	82	79	-25
'05	Products of animal origin, not elsewhere specified or included	50	73	74	-24

'56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	18	41	41	-23
'44	Wood and articles of wood; wood charcoal	35	48	57	-22
'52	Cotton	41	61	62	-21

Source: Authors' calculation based on ITC data

5.3 Export of Products to the Rest of Africa Market

5.3.1 Export products that have competitiveness in the Rest of Africa market

The rest of Africa market holds significant importance for Kenya's exports, and the signing of the agreement establishing the African Continental Free Trade Area (AfCFTA) in 2018 has expanded the market for Kenyan goods and services. Table 5.5 illustrates the products with a high Revealed Comparative Advantage (RCA) within the rest of Africa countries.

In Table 5.5, RCA indices for the top ten products at the HS2-digit level traded in the Rest of Africa (RoA) market are presented before and after the implementation of AfCFTA. Prior to the signing and implementation of AfCFTA, the RCAs for various products had shown a consistent increase over the years, with most of the products comprising agricultural commodities. The average RCA for key products between 2001 to 2017 was 166.93 for other vegetable textile fibres, paper yarn, and woven fabrics of paper yarn, while coffee, tea, maté, and spices; and tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, were 74.00 and 18.62, respectively.

After the signing of the AfCFTA agreement in 2018, the RCAs for various commodities experienced an increase (as shown in Table 5.5). Notably, the RCAs for Other vegetable textile fibers; Paper yarn and woven fabrics of paper yarn; coffee, tea, maté, and spices; tobacco and manufactured tobacco substitutes; artificial flowers; live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage increased by 80.63, 23.32, 7.67, 14.17, respectively. Other products such as sugars and sugar confectionery have witnessed their comparative advantage decline from 26.45 to 2.80 (refer to Appendix 1 for detailed information).

Table 5.5: RCA indices for the top ten products in the RoA region

Code	Product label	Pre-AfCFTA Average (2001-2017)	Post-AfCFTA Average (2018-2022)
'53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	166.93	216.81
'09	Coffee, tea, maté and spices	74	80.63
'24	Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, ...	18.62	23.32
'67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles ...	4.87	7.67
'06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	11.17	14.17
'41	Raw hides and skins (other than furskins) and leather	2.38	2.94
'28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	9.23	7.71
'36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0.24	2.47
'17	Sugars and sugar confectionery	15.97	13.14
'07	Edible vegetables and certain roots and tubers	8.7	7.4

Source: Authors' calculation based on ITC data

5.3.2 Export products that have lost competitiveness in the Rest of Africa market

Further analysis, as depicted in Tables 5.6, reveals significant declines in the rankings of specific product categories when comparing the Pre-AfCFTA and Post-AfCFTA in the Rest of Africa countries, which excludes COMESA and EAC countries. Notably, products categorized as Footwear, gaiters and the like; parts of such articles, Zinc and articles thereof, and Iron and steel have witnessed substantial drops in their rankings within the Rest of Africa (RoA) region.

Moreover, other products that have experienced declines in their rankings include those falling under the categories of products of the milling industry; malt; starches; inulin; wheat gluten; wool, fine or coarse animal hair; horsehair yarn and woven fabric; wood and articles of wood; wood charcoal, and articles of apparel and clothing accessories, knitted or crocheted. For detailed trends over the years and the dynamics of competitiveness, a detailed analysis in terms of Revealed Comparative Advantage (RCA) ranks is provided in Appendix 2.

Table 5.6: Products that dropped in ranking based on RCAs in the RoA

Code	Product label	Pre-AfCFTA		Post-AfCFTA Rank 2022	Change
		Rank 2001	Rank 2017		
'64	Footwear, gaiters and the like; parts of such articles	12	27	83	-71
'79	Zinc and articles thereof	16	80	85	-69
'72	Iron and steel	11	69	77	-66
'11	Products of the milling industry; malt; starches; inulin; wheat gluten	28	80	79	-51
'51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	38	80	85	-47
'44	Wood and articles of wood; wood charcoal	33	60	76	-43
'61	Articles of apparel and clothing accessories, knitted or crocheted	34	56	69	-35

'59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	42	66	74	-32
'14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	25	17	56	-31
'76	Aluminium and articles thereof	17	39	45	-28

Source: Authors' calculation based on ITC data

5.4 Export Products Competitiveness in the EU Market

The European Union (EU) market holds immense significance for Kenya. Kenya successfully negotiated an Economic Partnership Agreement (EPA) with the EU, which came into effect in 2021. Prior to the EPA, Kenya accessed the EU market through the EU Generalized System of Preferences (GSP) schemes, ensuring duty-free and quota-free market access, everything but arms and ammunitions (EBA). Furthermore, the EAC-EU EPA negotiations concluded in 2014, with Kenya ratifying the agreement in 2016. This was a significant milestone for Kenya's export market access as an EAC member.

Consequently, the EU market features numerous products that have demonstrated competitiveness ($RCA > 1$), predominantly in the agricultural sector, as identified in Table 5.7 with more details provided in Appendix 1.

5.4.1 Export products that have competitiveness in the EU market

Table 5.7 highlights the competitive products destined for the UK, primarily comprising agricultural commodities. These include live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage; coffee, tea, maté and spices; edible vegetables and certain roots and tubers; preparations of vegetables, fruit, nuts, or other parts of plants; edible fruit and nuts; peel of citrus fruit or melons; and other vegetable textile fibres; paper yarn and woven fabrics of paper yarn.

Among these products, live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage stand out as particularly competitive, evidenced by their highest average Revealed Comparative Advantage (RCA) of 306.4 in 2022. This signifies that the floriculture sector is thriving in the UK market, demonstrating robust competitiveness and market presence.

Table 5.7: RCA indices for the top ten products in the EU market

Code	Product label	GSP-EBA Average (2001-2015)	EAC-EU-EPA 2016	Kenya-UK EPA 2021	Status Average (2017-2022)
'06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	258.17	297	306.64	306.4
'09	Coffee, tea, maté and spices	108.29	78.07	72.32	78.53
'07	Edible vegetables and certain roots and tubers	51.31	30.91	33.58	33.17
'20	Preparations of vegetables, fruit, nuts or other parts of plants	27.35	21.15	16.75	19.99
'53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	10.99	11.09	12.11	10.91
'08	Edible fruit and nuts; peel of citrus fruit or melons	3.61	6.43	11.56	10.31
'41	Raw hides and skins (other than furskins) and leather	4.98	7.11	3.28	5.54
'24	Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, ...	5.91	9.83	2.21	5.30
'67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles...	0.07	0.58	3.33	2.13
'46	Manufactures of straw, of esparto or of other plaiting materials; basket ware and wickerwork	0.83	0.76	2.71	2.04

Source: Authors' calculation based on ITC data

5.4.2 Export products that have lost competitiveness in the EU market

We have identified products that have experienced a decline in their rankings based on the computed Revealed Comparative Advantages (RCAs). As illustrated in Table 5.8, products such as vegetable plaiting materials; salt; sulphur; earths and stone; plastering materials, lime and cement; and explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations exhibited a drop in ranking by 74, 63, and 50 points, respectively, when comparing the ranking in 2022 with the base year 2001.

Furthermore, several other products recorded notable declines, including footwear, gaiters and the like; furskins and artificial fur; man-made filaments; strip and the like of man-made textile materials; man-made staple fibres; and sugars and sugar confectionery (Refer to Appendix 1 for detailed information).

Table 5.8: Products that dropped in ranking based on RCAs in the EU

Code	Product label	GSP-EBA rank 2001	EAC-EU-EPA rank 2016	Kenya-UK EPA rank 2021	Rank 2022	Change
'14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	5	48	23	79	-74
'25	Salt; sulphur; earths and stone; plastering materials, lime and cement	8	13	78	71	-63
'36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	29	80	85	79	-50
'64	Footwear, gaiters and the like; parts of such articles	33	42	47	79	-46
'43	Furskins and artificial fur; manufactures thereof	39	68	85	79	-40

'54	Man-made filaments; strip and the like of man-made textile materials	45	80	82	79	-34
'55	Man-made staple fibres	44	78	54	77	-33
'56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	37	77	79	68	-31
'17	Sugars and sugar confectionery	13	25	43	43	-30

Source: Authors' calculation based on ITC data

5.5 Export Products Competitiveness in the US Market

5.5.1 Export products that have competitiveness in the US market

Kenya has accessed the US market through the African Growth and Opportunity Act (AGOA) framework since the year 2000 and was further extended in 2015 to allow for duty-free quota-free market access. As AGOA approaches its conclusion in 2025, Kenya is actively engaged in negotiations with the United States to establish a Strategic Trade and Investment Partnership Agreement (STIP). The primary objective is to secure continued access to the US markets, especially in the event of the AGOA framework not being renewed.

On average, all product categories have demonstrated competitiveness ($RCA > 1$) within the AGOA framework. The product category boasting the highest average Revealed Comparative Advantage (RCA) was coffee, tea, maté, and spices, with an RCA of 85.10. Conversely, the product category with the lowest average RCA was essential oils and resinoids; perfumery, cosmetic, or toilet preparations, registering 0.92.

Since the implementation of AGOA in the year 2000, the export competitiveness of textiles and clothing has seen a notable increase from 0.01 to approximately 28.03. However, certain product categories, such as coffee and tea, despite initially having a high RCA compared to other products, have experienced a decline in competitiveness — from an RCA of 270.85 to an RCA of 85.1. These trends underscore the dynamic nature of export competitiveness within the AGOA framework and the need for strategic negotiations to ensure continued market access (refer to Appendix 1 for more information).

Table 5.9: RCA indices for the top ten products in the US market

Code	Product label	AGOA Phase I average 2001-2014	AGOA extension and enhancement average 2015	Status Average 2015-2022
'09	Coffee, tea, maté and spices	110.561	48.34	40.5438
'62	Articles of apparel and clothing accessories, not knitted or crocheted	24.7493	31.53	33.7725
'61	Articles of apparel and clothing accessories, knitted or crocheted	19.0236	17.46	17.735
'08	Edible fruit and nuts; peel of citrus fruit or melons	11.3786	12.57	13.7838
'26	Ores, slag and ash	0.81333	4.46	4.99625
'67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles	0.96571	0.7	6.46375
'06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	11.8686	11.34	8.31375
'21	Miscellaneous edible preparations	4.24857	0.14	2.19
'46	Manufactures of straw, of esparto or of other plaiting materials; basket ware and wickerwork	4.54857	2.13	3.01125
'33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.33909	1.4	2.06

Source: Authors' calculation based on ITC data

5.5.2 Export products that lost competitiveness in the US market

Since the initiation of the African Growth and Opportunity Act (AGOA) in the year 2000, several competitive products have experienced a decline in their rankings. Notably, vegetable plaiting materials; tobacco and manufactured tobacco substitutes; and wool, fine or coarse animal hair; horsehair yarn and woven fabric have dropped by 63, 53, and 47 points, respectively (Table 5.10).

Additionally, there are other products that have faced significant declines, including Sugars and sugar confectionery; other vegetable textile fibres; paper yarn and woven fabrics of paper yarn; railway or tramway locomotives, rolling stock and parts thereof; and pharmaceutical products (refer to Appendix 1 for detailed information).

Despite having approximately 6,400 tariff lines to access the US market under the AGOA framework, statistics indicate that the market has limited products accessing it. Looking ahead to the Kenya-US strategic trade and investment partnership agreement, when concluded, the current challenges in product competitiveness may pose a hurdle in fully leveraging the US market, given the narrow product base. Efforts may be required to diversify and enhance the competitiveness of Kenya's product offerings to maximize the benefits of the partnership agreement.

Table 5.10: Products that dropped in ranking based on RCAs in the US

Code	Product label	AGOA Phase I rank 2001	AGOA extension and enhancement rank 2015	Rank 2022	Change
'14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	1	20	64	-63
'24	Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, ...	11	66	64	-53
'51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	17	55	64	-47
'17	Sugars and sugar confectionery	19	66	64	-45

'53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	20	66	64	-44
'86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures ...	25	66	64	-39
'23	Residues and waste from the food industries; prepared animal fodder	27	40	64	-37
'99	Commodities not elsewhere specified	28	66	64	-36
'84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	35	65	64	-29
'30	Pharmaceutical products	21	64	48	-27
'64	Footwear, gaiters and the like; parts of such articles	39	29	64	-25

Source: Authors' calculation based on ITC data

6. Conclusion and Policy Recommendations

6.1 Conclusion

The study draws conclusions regarding the objective that sought to analyze the competitiveness of Kenyan export products in the regional and international markets using the Balassa Index of Comparative Advantage. The EAC, COMESA, Rest of Africa, the EU and the US markets were identified as key markets of interest to Kenyan export products in the study. The interest of the study was to examine both the current and the previous competitive export products in each of the markets following the respective trade regimes, and to bring out the products that have/have lost competitiveness over the years. This is important as the five identified markets has an impact to the export led growth for Kenya. For instance, Kenya is a member of the AfCFTA, which will expand the current market access of Kenya beyond the EAC and COMESA. Further, Kenya is pursuing a strategic trade and investment partnership agreement with the US and finally Kenya has signed an Economic Partnership Agreement with EU. There is an increase in the number of products exhibiting competitiveness in the African region and the US, while simultaneously witnessing a decrease in the EU region. The study concludes that most of the competitive products in all selected markets emanated from agricultural products such as coffee, tea mate and spices, live trees, and other plants; bulbs, roots and the like; cut flowers and ornamental foliage. However, the non-agricultural sector had more competitive sectors in the African region than in the international markets with products such as salt; sulphur; earths and stone; plastering materials, lime, and cement. In addition, there is evidence that many products that initially had a competitive advantage have over the years experienced a decline in their level of competitiveness. This trend highlighted a higher RCA in earlier years that has since diminished. Furthermore, a number of products have experienced a fluctuating level of competitiveness across the years, although they lost their competitiveness in 2022. This trend is worrying for the country as exports have been identified critical in accelerating economic growth in the Kenya Vision 2033 and the Bottom-up Economic Transformation Agenda.

6.2 Policy Recommendations

To enhance the competitiveness of Kenyan products in the regional and international markets, the following recommendations are made:

1. **Promoting agricultural products:** From the study, agricultural products exhibited the strongest competitiveness in both regional and international markets. Thus, the government could invest in the agricultural sector by providing subsidies in inputs, capacity building through extension services, and financial support to the farmers. This could increase the production and competitiveness of agricultural products in the market, and thus increase the country's export products accessing the regional and international markets.

2. Targeted support to the non-agricultural products: Non-agricultural products showed weak competitiveness. The government could explore supporting nascent industries to produce competitive products that can access the export market. This could include investing in research and development to improve the quality and competitiveness of non-agricultural products and providing incentives to attract foreign investors in this sector.
3. Export products diversification: The findings point to a narrow base of export products in all the key markets, as only a few products are accessing both regional and international markets. Thus, there is need for the country to diversify export products by supporting farmers and producers of products that were competitive and have lost their competitiveness over the years.
4. Encouraging value addition: The study highlights the need for value addition in agricultural products for export, as this can increase the price and profitability of these products. The government could provide incentives to encourage value addition, such as tax breaks, subsidies, and technical support for agro-processing activities.
5. Improving market access for exports: The study brings out the value of markets access when it comes to avoiding loss in product competitiveness. The government could enhance market access by continuing its bilateral, regional and international trade engagements; provide technical and financing support to micro, small and medium-sized enterprises in value chains and firms producing the identified promising export products; support the development of market- and product-specific standards; and facilitate investment.

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Appendices

Appendix 1: Export products RCAs for Partner Countries and Economic Blocks (2001-2022)

Code	Product label	EAC					COMESA					ROA					EU					US	
		2001	2004	2009	2012	2022	2001	2010	2022	2001	2017	2022	2001	2016	2022	2001	2016	2022	2001	2015	2022		
'01	Live animals	1.08	0.76	0.57	0.52	1.39	0.29	0.92	2.56	0.77	6.26	2.52	-	0.50	2.35	-	0.21	1.66	-	-	-		
'02	Meat and edible meat offal	0.09	0.32	0.47	0.55	0.75	0.03	0.34	0.48	0.08	0.37	0.46	-	0.00	0.00	-	-	-	-	-	-		
'03	Fish and crustaceans, molluscs and other aquatic invertebrates	0.02	0.02	0.04	0.13	0.38	0.32	0.12	0.38	0.56	0.16	0.34	3.95	1.26	2.66	5.27	0.15	0.08	-	-	-		
'04	Dairy produce; birds' eggs; natural honey; edible products of animals; products of animal origin, not elsewhere specified or included	0.95	0.58	1.90	1.29	0.35	0.18	1.14	0.12	0.21	0.00	0.06	-	-	0.00	-	-	-	-	-	-		
'05	Products of animal origin, not elsewhere specified or included	0.02	0.00	0.00	0.07	0.08	0.30	0.10	0.10	0.88	1.80	1.13	0.41	0.05	0.03	3.62	0.01	0.05	-	-	-		
'06	Live trees and other plants; bulbs, roots and the like; cut edible vegetables and certain roots and tubers	1.11	0.86	0.87	0.68	0.25	3.75	1.06	2.87	11.18	19.39	29.21	182.47	297.00	305.70	4.50	11.34	9.06	-	-	-		
'07	Edible fruit or nuts; peel of citrus fruit or melons	0.03	0.01	0.14	0.85	3.05	0.48	2.60	2.87	1.41	0.99	2.78	49.72	30.91	29.61	0.09	0.12	0.07	-	-	-		
'08	Coffee, tea, mate and spices	3.02	0.88	1.32	0.91	1.53	143.78	63.52	0.85	0.69	0.06	0.57	3.74	6.43	12.41	6.31	12.57	14.31	-	-	-		
'09	Cereals	0.24	0.46	0.84	1.09	0.54	0.23	1.93	41.40	40.43	137.76	91.83	162.63	78.07	0.02	0.02	0.01	0.01	0.01	0.01	0.02		
'10	Products of the milling industry; malt; starches; inulin; wheat	16.19	9.53	6.69	5.98	2.89	7.79	2.70	0.47	1.35	-	0.01	0.00	0.02	0.01	-	0.36	0.15	-	-	-		
'12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and vegetable saps and extracts	0.86	0.21	0.40	0.50	0.72	0.64	0.60	0.75	0.15	0.12	1.49	0.56	0.15	3.94	2.15	0.08	0.06	-	-	-		
'13	Lac; gums, resins and other vegetable saps and extracts	0.08	0.03	0.19	0.10	0.18	0.35	0.08	0.26	3.75	2.63	1.26	28.02	1.41	5.47	388.43	0.49	0.14	-	-	-		
'14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	-	0.02	0.25	0.23	-	-	318.79	0.37	1.48	1.66	0.23	34.10	0.03	-	397.48	0.20	-	-	-	-		
'15	Animal, vegetable or mineral fats and oils and their cleavage	7.17	6.74	7.73	13.43	14.17	11.82	9.48	15.08	11.55	1.88	1.74	0.03	0.65	3.20	0.34	1.49	0.70	-	-	-		
'16	Preparations of meat, of fish, of crustaceans, molluscs or other	0.46	0.65	0.91	0.54	0.68	0.20	0.22	0.56	0.06	0.14	0.06	0.00	-	0.00	-	-	-	-	-	-		
'17	Sugars and sugar confectionery	16.06	8.70	8.76	10.24	13.28	9.85	6.28	11.16	26.45	2.46	2.80	1.12	0.16	0.03	0.87	-	-	-	-	-		
'18	Cocoa and cocoa preparations	3.33	1.57	1.05	0.65	0.26	1.88	0.48	0.31	0.09	-	0.08	0.13	0.03	0.08	-	0.00	0.04	-	-	-		
'19	Preparations of cereals, flour, starch or milk; pastycooks	2.91	0.97	1.34	1.57	2.24	2.27	1.57	1.98	0.36	0.93	0.62	0.48	0.22	0.12	-	0.02	0.03	-	-	-		
'20	Preparations of vegetables, fruit, nuts or other parts of plants	0.61	0.58	2.28	3.11	2.20	0.81	1.88	2.70	1.55	1.54	2.42	34.40	21.15	15.50	2.70	7.47	0.64	-	-	-		
'21	Miscellaneous edible preparations	2.43	1.41	1.91	3.37	7.23	1.62	2.33	0.20	0.54	4.55	1.38	0.65	0.33	2.09	9.70	0.14	3.32	-	-	-		
'22	Beverages, spirits and vinegar	1.84	1.14	7.37	7.33	3.37	1.29	5.32	1.57	0.20	0.19	1.67	0.05	0.06	0.46	-	0.07	0.06	-	-	-		
'23	Residues and waste from the food industries; prepared animal	0.13	0.04	0.09	0.05	0.82	0.68	0.07	0.56	-	-	-	0.01	0.01	0.03	0.22	0.03	-	-	-	-		
'24	Tobacco and manufactured tobacco substitutes; products	4.41	2.82	5.85	10.20	6.65	14.23	23.99	20.80	36.53	10.46	37.16	4.33	9.83	1.63	4.46	-	-	-	-	-		
'25	Salt; sulphur; earths and stone; plastering materials, lime and	25.93	14.29	36.11	28.05	27.90	19.42	24.09	21.83	13.88	2.29	1.43	5.46	1.00	0.00	0.05	-	1.65	-	-	-		
'26	Ores, slag and ash	0.00	0.00	0.02	0.01	0.06	0.00	0.01	0.07	-	0.00	0.25	-	0.38	1.18	-	4.46	9.96	-	-	-		

27	Mineral fuels, mineral oils and products of their distillation;	0.05	4.46	0.54	0.37	0.24	0.03	0.42	0.19	0.02	0.54	0.07	0.01	0.48	0.61	0.03	0.07	0.29
28	Inorganic chemicals; organic or inorganic compounds of	1.40	1.06	2.91	2.85	2.03	0.88	1.57	1.84	1.12	3.43	4.23	-	0.00	0.00	-	-	0.00
29	Organic chemicals	0.08	0.07	0.14	0.16	0.22	0.05	0.13	0.20	0.01	0.02	0.04	0.00	0.06	0.01	-	0.00	0.02
30	Pharmaceutical products	2.66	1.00	0.99	2.14	1.28	1.64	0.99	1.26	2.21	1.84	1.56	0.01	0.07	0.05	0.49	0.00	0.01
31	Fertilisers	4.03	0.27	7.26	3.68	5.22	2.97	2.28	4.47	-	0.93	0.33	0.01	-	-	-	-	-
32	Tanning or dyeing extracts; tannins and their derivatives;	2.15	0.93	2.01	2.18	3.14	1.27	1.40	2.57	0.97	0.34	0.30	0.02	0.48	0.23	-	0.50	0.81
33	Essential oils and resinoids; perfume, cosmetic or toilet	6.73	1.38	1.82	1.65	1.76	2.72	1.10	1.51	0.90	0.27	0.76	0.12	0.08	0.38	-	1.40	2.23
34	Soap, organic surface-active agents, washing preparations,	16.26	7.41	12.32	14.22	16.96	9.52	13.01	12.66	7.77	0.46	0.88	0.01	0.01	0.06	0.02	0.00	0.00
35	Alkylaromatic substances; aliphatic surfactants; deter-	1.39	0.83	1.21	1.49	3.15	0.70	0.93	2.39	0.64	1.47	1.60	-	0.01	0.02	-	-	0.00
36	Explosives; matches; pyrophoric products; matches; pyrophoric	0.48	0.36	1.72	5.17	20.81	0.29	0.93	8.37	2.17	-	3.83	0.10	-	-	-	-	-
37	Photographic or cinematographic goods	0.03	0.84	0.23	0.16	0.21	0.03	0.15	0.14	0.01	0.56	0.02	-	-	-	-	-	-
38	Miscellaneous chemical products	2.46	0.75	1.26	0.98	1.13	1.33	1.45	1.46	0.31	0.09	0.79	0.01	0.01	0.03	-	0.00	0.00
39	Plastics and articles thereof	3.61	1.51	2.17	2.25	1.69	2.35	1.73	1.45	1.30	1.45	0.37	0.01	0.01	0.05	0.02	0.01	0.03
40	Rubber and articles thereof	1.52	0.92	0.88	0.62	0.16	0.93	0.55	0.11	0.05	0.01	0.45	0.00	0.00	0.01	-	0.00	0.00
41	Raw hides and skins (other than furskins) and leather	0.19	0.01	0.01	0.03	0.04	0.46	0.01	0.07	8.26	0.42	11.81	1.64	7.11	5.01	0.01	0.00	-
42	Articles of leather; saddlery and harness; travel goods; handbags	0.03	0.13	0.14	0.13	0.05	0.03	0.10	0.05	0.09	0.12	0.04	0.00	0.10	0.16	0.02	0.22	0.13
43	Furskins and artificial fur; manufactures thereof	-	-	0.25	0.00	-	-	0.00	-	-	-	-	0.03	0.00	-	-	0.01	-
44	Wood and articles of wood; wood charcoal	0.85	0.40	0.95	0.60	0.30	0.88	0.47	0.28	0.94	0.08	0.02	0.37	0.03	0.03	6.29	0.17	0.12
45	Cork and articles of cork	-	0.02	0.28	-	-	-	0.01	-	-	-	0.31	-	-	-	-	-	-
46	Manufactures of straw, of esparto or of other fibrous pulp of wood or of other fibrous cellulosic material; recovered	0.14	0.08	0.14	0.10	0.64	0.10	0.14	1.48	0.27	0.50	1.39	0.81	0.76	3.36	6.77	2.13	2.52
47	Pulp of wood or of other fibrous cellulosic material; recovered	-	0.00	0.06	0.17	0.23	-	0.03	0.18	-	-	-	-	0.01	-	-	-	-
48	Paper and paperboard; articles of paper;pulp, of paper or of	4.40	2.15	2.88	2.89	3.73	3.09	2.13	3.46	1.26	2.11	0.71	0.00	0.00	0.01	0.01	0.00	0.04
49	Printed books, newspapers, pictures and other products of	1.65	0.86	3.53	5.02	9.27	1.15	3.21	5.05	0.56	3.28	2.44	0.04	0.02	0.04	0.03	0.05	0.06
50	Silk	-	-	0.00	0.00	0.32	-	0.00	0.18	-	-	-	-	-	-	-	-	-
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.01	0.01	0.01	0.04	0.01	0.01	0.00	0.00	0.73	-	-	0.57	1.11	0.57	1.19	0.00	-
52	Cotton	1.10	0.11	0.09	0.14	0.19	0.53	0.22	0.20	0.12	0.09	1.14	0.05	0.05	0.02	0.03	0.02	0.02
53	Other vegetable textile fibres; paper yarn and woven fabrics of	0.05	0.26	0.38	0.22	0.07	3.24	2.86	3.65	13.84	356.3	531.2	9.65	11.09	11.41	0.78	-	-
54	Man-made filaments; strip and the like of man-made textile	0.13	0.03	0.06	0.09	0.11	0.25	0.02	0.05	-	0.01	-	0.01	-	-	-	0.04	0.11
55	Man-made staple fibres	4.79	1.12	2.38	2.17	2.25	2.96	1.22	1.72	2.25	-	1.00	0.02	0.00	0.00	-	0.02	-
56	Wadding, felt and nonwovens; special yarns; twine, cordage;	2.58	1.83	0.66	1.01	1.02	2.67	0.83	0.68	0.64	0.21	1.06	0.03	0.00	0.00	0.02	-	0.00
57	Carpets and other textile floor coverings	0.05	0.01	0.16	0.23	0.02	0.01	0.15	0.02	0.03	0.01	0.01	-	0.00	0.00	-	0.02	0.04

158	Special woven fabrics: tufted textile fabrics; lace; tapestries;	0.02	0.12	0.40	0.47	0.10	0.02	0.27	0.16	-	-	0.79	-	-	0.00	-	0.00	0.00
159	Impregnated, coated, covered or laminated textile fabrics; textile knitted or crocheted fabrics	0.46	0.36	0.05	0.42	0.07	0.20	0.42	0.04	0.58	0.03	0.03	0.00	-	0.00	-	0.00	-
160	Knitted or crocheted fabrics	0.19	0.11	0.06	0.15	0.23	0.14	0.11	0.23	-	-	-	-	-	-	0.03	0.00	0.00
161	Articles of apparel and clothing accessories, knitted or crocheted	0.52	0.24	0.32	0.28	0.13	0.40	0.20	0.07	0.91	0.09	0.06	0.03	0.06	0.41	0.01	17.46	183.6
162	Articles of apparel and clothing accessories, not knitted or crocheted	0.42	0.26	0.35	0.52	0.14	0.30	0.30	0.16	0.25	0.17	0.07	0.00	0.35	0.16	0.01	31.53	30.31
163	Other made-up textile articles; sets, worn clothing and worn accessories, not knitted or crocheted	6.21	4.70	3.83	5.05	2.24	4.82	3.76	2.82	15.96	1.27	1.47	0.28	0.14	0.09	1.89	0.35	0.21
164	Footwear, gaiters and the like; parts of such articles	4.43	2.81	3.48	3.19	1.69	2.47	2.38	1.32	6.98	0.67	0.00	0.05	0.04	-	0.03	0.09	-
165	Headgear and parts thereof	0.36	0.46	0.72	1.06	0.82	0.51	0.78	0.43	0.36	0.31	0.47	-	0.01	0.00	-	-	0.00
166	Umbrellas, sun umbrellas, walking sticks, tipis, golf bags, golf bags, and the like	0.08	0.39	2.56	0.88	0.40	0.01	0.45	0.40	-	0.07	0.08	-	-	-	-	-	-
167	Prepared feathers and down and articles made of feathers or of down	0.62	1.94	3.06	2.08	2.55	3.19	3.14	6.02	5.02	24.34	29.85	0.01	0.58	4.22	0.32	0.70	9.86
168	Articles of stone, plaster, cement, asbestos, mica or ceramic products	0.94	0.34	0.26	0.61	0.66	0.35	0.28	0.54	0.10	0.01	0.01	0.36	0.12	0.07	1.94	0.11	0.16
169	Ceramic products	0.83	0.56	0.94	0.80	3.03	0.36	0.63	2.70	0.59	0.03	0.27	0.00	0.04	0.68	0.01	0.06	0.01
170	Glass and glassware	3.10	2.19	5.04	3.99	1.71	1.95	2.84	1.53	0.21	0.17	1.93	0.01	0.00	0.01	0.04	0.12	0.03
171	Natural or cultured pearls, precious or semi-precious	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	1.56	2.58	0.07	0.02	0.02	0.93	0.09	0.10
172	Iron and steel	5.57	1.75	2.94	3.90	4.14	3.68	1.97	3.03	7.45	0.02	0.01	0.01	-	0.01	-	-	0.00
173	Articles of iron or steel	2.29	1.01	1.50	1.85	2.08	1.75	1.45	1.94	1.48	0.15	1.54	0.03	0.03	0.01	0.02	0.00	1.23
174	Copper and articles thereof	0.14	0.03	0.47	0.09	0.04	0.01	0.27	0.04	0.03	0.01	0.00	0.04	0.14	0.79	-	-	-
175	Nickel and articles thereof	-	0.00	0.00	0.00	0.00	-	0.00	0.00	-	-	-	-	0.02	-	-	-	-
176	Aluminium and articles thereof	2.34	1.41	2.57	2.23	0.40	1.12	1.43	0.31	3.00	0.22	0.46	-	0.09	0.06	-	-	0.02
178	Lead and articles thereof	0.32	0.20	0.01	0.03	1.04	-	0.00	1.03	-	-	-	-	-	-	-	-	-
179	Zinc and articles thereof	-	0.01	0.18	0.30	-	0.01	0.06	0.03	3.37	-	-	-	0.23	0.11	-	0.05	-
180	Tin and articles thereof	0.19	0.10	0.04	0.32	0.26	0.12	0.02	0.26	-	-	-	-	-	-	-	-	-
181	Other base metals; cermet; articles thereof	-	0.00	0.00	0.00	0.00	-	-	0.01	-	-	-	-	0.05	0.06	-	-	-
182	Tools, implements, cutlery, spoons and forks, of base metal	0.27	0.33	0.43	0.52	0.43	0.42	0.63	0.37	0.32	0.03	0.22	0.01	0.00	0.02	-	0.10	-
183	Miscellaneous articles of base metal	1.90	0.99	3.09	2.94	2.06	1.84	1.96	2.80	1.81	0.11	1.04	0.01	0.04	0.05	0.01	0.12	0.00
184	Nuclear reactors, boilers, machinery and mechanical equipment and parts thereof	0.11	0.06	0.22	0.38	0.30	0.06	0.24	0.17	0.08	0.17	0.27	0.00	0.00	0.01	0.03	0.00	-
185	Electrical machinery, and equipment and parts thereof	0.08	0.08	0.19	0.25	0.18	0.04	0.18	0.14	0.06	0.08	0.15	0.00	0.00	0.00	0.01	-	-
186	Railway or tramway locomotives, rolling stock and parts thereof	0.01	0.10	0.02	0.04	0.05	0.01	0.08	0.05	-	0.05	0.75	-	0.00	-	0.28	-	-
187	Vehicles other than railway or tramway rolling stock, and parts thereof	0.14	0.11	0.79	0.50	0.60	0.09	0.40	0.30	0.05	0.18	0.12	0.00	0.01	0.01	0.02	-	0.00
188	Aircraft, spacecraft, and parts thereof	0.00	0.00	0.00	0.01	0.03	0.00	0.01	0.00	-	0.02	0.19	0.01	0.00	0.00	0.01	0.00	-
189	Ships, boats and floating structures	0.07	0.00	0.04	0.13	0.10	0.01	0.25	0.08	-	0.22	0.00	-	-	-	-	-	-

Appendix 2: Export products RCAs ranks for Partner Countries and Economic Blocks (2001-2022)

Code	Product label	EAC					COMESA					ROA					EU					US	
		Rank 2001	Rank 2004	Rank 2009	Rank 2012	Rank 2022	Rank 2001	Rank 2010	Rank 2022	Rank 2001	Rank 2017	Rank 2022	Rank 2001	Rank 2016	Rank 2021	Rank 2022	Rank 2001	Rank 2015	Rank 2022				
'01	Live animals	36	35	46	48	32	53	40	53	40	23	37	6	12	75	17	12	14	56	19	11		
'02	Meat and edible meat offal	63	50	49	46	40	70	53	70	45	66	34	46	75	73	52	76	56	66	64			
'03	Fish and crustaceans, molluscs and other aquatic invertebrates	78	76	80	73	51	49	70	49	43	34	47	49	10	10	14	13	9	22	29			
'04	Dairy produce; birds' eggs; natural honey; edible products	37	39	26	31	52	58	34	54	71	54	78	67	75	80	77	72	56	66	50			
'05	Products of animal origin, not elsewhere specified or included	80	84	91	78	74	50	73	74	36	16	28	19	40	38	46	12	46	34	34			
'06	Live trees and other plants; live trees and other plants, roots and tubers	34	31	41	41	59	9	36	9	8	4	5	1	1	1	1	10	5	7	7			
'07	Edible vegetables and certain roots and tubers	76	81	67	39	16	43	16	16	16	27	23	10	3	3	3	3	29	25	30			
'08	Edible fruit and nuts; peel of citrus fruit or melons	77	77	71	69	47	65	65	38	39	63	42	11	8	8	6	5	7	4	4			
'09	Coffee, tea, maté and spices	18	30	31	37	31	1	2	1	1	2	2	2	2	2	2	2	3	1	1			
'10	Cereals	52	43	42	33	46	55	23	23	47	79	54	43	71	35	68	54	56	48	43			
'11	Products of the milling industry; malt; starches; inulin; miscellaneuous grains, seeds and	3	2	7	7	18	7	15	46	28	80	79	68	51	67	60	56	15	23	23			
'12	Oil seeds and oleaginous fruits; miscellaneuous grains, seeds and	39	55	52	51	41	39	45	39	58	52	21	17	26	11	10	14	31	31	31			
'13	Lac; gums, resins and other vegetable planting materials;	66	71	62	75	66	48	74	58	15	10	26	6	9	9	7	7	2	13	24			
'14	Vegetable saps and extracts	88	75	59	61	93	88	1	51	25	17	56	5	48	23	79	1	20	64	64			
'15	Animal, vegetable or microbial fats and oils and their cleavage	5	5	4	3	4	4	6	4	7	14	16	41	15	15	12	22	9	15	15			
'16	Preparations of meat, of fish, of crustaceans, molluscs or other	47	37	39	47	42	57	60	43	67	49	68	65	80	83	78	56	66	64	64			
'17	Sugars and sugar confectionery	4	3	3	4	5	5	7	6	3	11	9	13	25	43	43	19	66	64	64			
'18	Cocoa and cocoa preparations	16	16	34	42	58	23	47	63	80	64	25	45	51	34	34	56	59	37	37			
'19	Preparations of cereals, flour, starch or milk; pastycooks'	19	27	30	29	22	21	27	49	25	40	18	24	32	32	31	56	44	38	38			
'20	Preparations of vegetables, fruit, nuts or other parts of	43	40	22	15	23	36	24	23	19	14	4	4	4	4	4	13	6	16	16			
'21	Miscellaneous edible preparations	28	19	25	13	7	27	18	7	45	7	25	15	22	18	15	4	23	8	8			
'22	Beverages, spirits and vinegar	23	21	5	6	13	29	8	29	57	42	17	32	37	24	23	56	32	33	33			
'23	Residues and waste from the food industries; prepared	59	70	72	79	38	64	76	42	79	80	85	54	65	69	45	27	40	64	64			
'24	Tobacco and manufactured tobacco substitutes; products;	12	8	8	5	8	3	4	3	2	5	3	9	6	13	17	11	66	64	64			
'25	Salt; sulphur; earths and stone; plastering materials; lime and	1	1	1	1	1	2	3	2	5	12	23	8	13	78	71	33	66	12	12			
'26	Ores, slag and ash	86	89	83	88	77	86	87	76	79	79	55	75	20	19	18	56	7	5	5			

127	Mineral fuels, mineral oils and products of their distillation;	71	7	47	56	60	69	50	63	74	29	66	58	19	25	21	38	33	20
128	Inorganic chemicals; organic or inorganic compounds of organic chemicals	31	23	17	19	26	34	26	27	31	8	7	75	76	74	75	56	66	53
129	Organic chemicals	65	66	69	67	63	67	69	61	75	71	73	74	38	84	64	56	63	41
130	Pharmaceutical products	20	25	35	24	33	26	37	36	19	15	19	55	34	55	41	21	64	48
131	Fertilisers	14	51	6	12	9	15	19	12	79	24	50	59	80	72	79	56	66	64
132	Tanning or dyeing extracts; tannins and their derivatives;	26	28	24	22	15	30	31	22	32	35	52	43	18	27	27	56	12	14
133	Essential oils and resinoids	6	20	27	27	27	17	5	31	35	38	37	26	33	26	26	56	10	10
134	Perfumery, cosmetic or toilet Soap; organic surface-active agents; washing preparations;	2	4	2	2	3	6	5	5	10	31	32	47	64	41	36	43	60	62
135	Aliphatical substances; Aliphatical esters; Fats;	33	34	33	30	14	37	39	24	41	20	18	75	57	85	51	56	66	61
136	Refrigerants; Insecticides; Pesticides; Inicides; Pyrophoric products	45	46	28	8	2	52	38	8	20	80	8	29	80	85	79	56	66	64
137	Photographic or cinematographic goods	73	33	60	66	64	72	66	70	78	28	75	75	80	66	79	56	66	64
138	Miscellaneous chemical products	22	36	32	36	34	28	33	33	51	57	33	50	59	46	47	56	52	59
139	Plastics and articles thereof	15	17	23	20	29	20	25	34	29	21	48	49	56	48	39	41	47	40
140	Rubber and articles thereof	30	29	40	43	68	33	46	72	79	77	60	70	71	63	61	56	61	56
141	Raw hides and skins (other than furskins) and leather	54	79	88	85	80	44	89	77	9	33	6	12	7	8	8	52	53	64
142	Articles of leather; saddlery and harness; travel goods; handbags	75	57	68	71	78	74	72	81	62	51	72	64	31	31	28	40	18	25
143	Furskins and artificial fur; manufactures thereof	88	93	58	94	93	88	95	95	79	80	85	39	68	85	79	56	49	64
144	Wood and articles of wood; wood charcoal	40	44	36	45	55	35	48	57	33	60	76	20	47	45	48	8	21	26
145	Cork and articles of cork	88	78	56	95	93	88	86	95	79	80	51	75	80	85	79	56	66	64
146	Manufactures of straw, of esparto or of other fibrous pulp of wood or of other fibrous cellulosic material; recovered	56	65	70	74	44	61	68	32	52	30	24	14	10	10	11	5	8	9
147	Paper and paperboard; articles of paper pulp, of paper or of	88	88	75	65	61	88	81	65	79	80	85	75	62	85	79	56	66	64
148	Printed books, newspapers, pictures and other products of	13	12	18	18	12	14	20	14	30	13	39	66	70	61	56	46	56	35
149	Silk	29	32	12	10	6	31	10	10	44	9	13	34	52	36	42	37	37	32
150	Wool, fine or coarse animal hair; horsehair yarn and woven	88	93	90	91	54	88	92	64	79	80	85	75	80	85	79	56	66	64
151	Other vegetable textile fibres; paper yarn and woven fabrics of	82	83	89	81	87	80	91	90	38	80	85	16	11	20	22	17	55	64
152	Cotton	35	59	73	70	65	41	61	62	59	58	27	31	39	59	53	36	42	46
153	Man-made filaments; strip and the like of man-made textile	69	53	53	63	76	11	13	13	6	1	1	7	5	5	6	20	66	64
154	Man-made staple fibres	60	72	76	77	71	54	82	79	79	75	85	45	80	82	79	56	38	27
155	Wadding, felt and nonwovens; special yarns; twine, cordage, Carpets and other textile floor	10	22	21	23	20	16	32	28	18	80	31	44	78	54	77	56	45	64
156	coverings	21	14	45	35	36	18	41	41	40	41	29	37	77	79	68	44	66	58
157		70	82	65	62	85	82	67	86	73	73	81	75	75	76	66	56	43	36

158	Special woven fabrics; tufted textile fabrics; lace; tapestries; impregnated, coated, covered or laminated textile fabrics; knitted or crocheted fabrics	79	58	51	53	72	75	56	67	79	80	35	75	80	80	62	67	56	54	55
159	Impregnated, coated, covered or laminated textile fabrics; knitted or crocheted fabrics	46	47	77	54	75	56	51	82	42	66	74	62	80	85	73	56	66	64	64
160	Knitted or crocheted fabrics	53	61	74	68	62	59	71	60	79	80	85	75	80	49	79	56	39	60	60
161	Articles of apparel and clothing accessories, knitted or crocheted	44	54	55	59	70	46	63	78	34	56	69	38	36	21	24	49	3	3	3
162	Articles of apparel and clothing accessories, knitted or crocheted, of base metal; other made-up textile articles; sets, worn clothing and worn	48	52	54	50	69	51	54	68	53	44	65	63	21	28	29	48	2	2	2
163	Other made-up textile articles; sets, worn clothing and worn	8	6	11	9	21	8	9	18	4	22	22	22	28	34	33	16	16	16	21
164	Footwear, gaiters and the like; parts of such articles	11	9	13	14	30	19	17	35	12	27	83	33	42	47	79	39	29	64	64
165	Headgear and parts thereof	49	42	44	34	37	42	42	48	48	37	44	75	63	44	74	56	66	52	52
166	Umbrellas, sun umbrellas, walking sticks, seat-sticks, prepared feathers and down and articles made of feathers or	67	45	20	38	49	78	49	49	79	61	63	75	80	85	79	56	66	64	64
167	Prepared feathers and down and articles made of feathers or	42	13	15	25	19	13	11	9	13	3	4	52	16	7	9	23	11	6	6
168	Articles of stone, plaster, cement, asbestos, mica or	38	48	57	44	43	40	55	44	61	74	78	21	29	40	35	15	27	22	22
169	Ceramic products	41	41	37	40	17	47	44	21	46	68	54	72	44	22	20	51	34	51	51
170	Glass and glassware	17	11	9	11	28	22	14	30	55	45	15	46	67	65	59	34	26	39	39
171	Natural or cultured pearls, precious or semi-precious	84	90	92	93	92	84	90	94	47	18	11	30	55	57	49	18	30	28	28
172	Iron and steel	9	15	16	16	11	10	21	15	11	69	77	56	80	70	65	56	66	54	54
173	Articles of iron or steel	25	24	29	26	24	25	28	26	24	48	20	40	46	56	57	45	62	13	13
174	Copper and articles thereof	58	73	48	76	81	77	57	83	71	76	84	35	27	17	19	55	66	64	64
175	Nickel and articles thereof	88	91	95	90	91	88	94	93	79	80	85	75	53	85	79	56	66	64	64
176	Aluminium and articles thereof	24	18	19	21	50	32	29	53	17	39	45	75	32	37	38	56	66	42	42
178	Lead and articles thereof	50	56	87	83	35	88	93	37	79	80	85	75	80	85	79	56	66	64	64
179	Zinc and articles thereof	88	80	64	58	93	83	77	84	16	80	85	75	23	35	32	56	36	64	64
180	Tin and articles thereof	55	63	78	57	57	60	83	59	79	80	85	75	80	85	79	56	66	64	64
181	Other base metals; cermets; articles thereof	88	87	94	92	88	88	96	89	79	80	85	75	41	39	37	56	66	64	64
182	Tools, implements, cutlery, spoons and forks, of base metal; miscellaneous articles of base metal	51	49	50	49	48	45	43	52	50	67	57	53	74	58	52	56	28	64	64
183	Miscellaneous articles of base metal	27	26	14	17	25	24	22	19	21	53	30	48	43	53	40	47	24	57	57
184	Nuclear reactors, boilers, machinery and mechanical equipment and parts thereof; railway or tramway locomotives, rolling stock and	61	68	61	55	56	66	59	66	65	46	53	60	69	50	62	35	65	64	64
185	Electrical machinery and equipment and parts thereof; railway or tramway locomotives, rolling stock and	64	64	63	60	67	68	64	69	68	59	61	69	72	75	70	53	66	64	64
186	Railway or tramway locomotives, rolling stock and	81	62	84	80	79	81	75	80	79	64	38	75	66	71	79	25	66	64	64
187	Vehicles other than railway or tramway locomotives, rolling stock and	57	60	43	52	45	63	52	55	69	43	62	67	61	80	55	42	66	63	63
188	Aircraft, spacecraft, and parts thereof	87	92	93	89	84	87	88	91	79	72	58	57	79	29	69	54	58	64	64
189	Ships, boats and floating structures	68	86	81	72	73	79	58	75	79	40	82	75	80	73	79	56	66	64	64

'90	Optical, photographic, cinematographic, measuring, clocks and watches and parts thereof	62	69	66	64	53	62	62	56	60	55	41	51	54	33	44	30	50	45
'91	Musical instruments; parts and accessories of such articles	85	85	86	87	89	85	85	88	76	65	59	73	49	60	50	50	57	44
'92	Arms and ammunition; parts and accessories thereof	88	93	85	84	82	88	79	85	64	70	47	36	60	42	25	24	41	19
'93	Furniture; bedding, mattresses, mattress supports, cushions and accessories thereof	88	93	96	95	90	88	84	92	14	32	80	28	80	85	79	56	66	64
'94	Toys, games and sports requisites; parts and accessories	32	38	38	32	39	38	30	40	22	26	36	42	50	64	58	31	51	49
'95	Miscellaneous manufactured articles	83	67	79	82	86	76	78	73	72	62	71	27	12	16	16	26	14	18
'96	Works of art, collectors' pieces and antiques	7	10	10	28	10	12	12	11	26	36	34	23	58	81	63	32	35	47
'97	Commodities not elsewhere specified	74	74	82	86	83	71	80	87	56	50	70	24	30	30	30	6	17	17
'99		72	93	96	95	93	73	96	95	77	80	85	61	80	85	79	28	66	64

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