



KENYA-UK TRADE AND INVESTMENT RELATIONS

Taking stock and promoting exports to the UK

Aarti Krishnan, Dirk Willem te Velde and Anzette Were

July 2018

Acknowledgements

This paper aims to support the Kenyan Export Promotion Council (EPC) as they think about how to enhance exports to the UK. We are grateful to Mr. Paul Otung, (DFID), Mr. Peter Biwott (Chief Executive Officer, EPC), Mr. Moses Ikiara (Managing Director, Kenya Investment Authority), and other staff of the EPC and Kenya Investment Authority for working with us. We would also like to thank the excellent contributions by stakeholders who took part in the roundtable discussion organised by the EPC in May 2018. We would also like to thank Jane Kennan and Georgia Cooke for their valuable support.

© SUPPORTING ECONOMIC TRANSFORMATION.

The views presented in this publication are those of the author(s) and do not necessarily represent the views of **DFID** or **ODI**.



CONTENTS

Summary findings	iv
1. Introduction	1
2. Trade in Kenya	2
2.1 Kenyan exports and imports: key trends	2
2.2 Kenyan exports and imports: what are the main products?	2
2.3 Key export destinations	4
3. Kenyan exports of goods and services to the UK	5
3.1 General trends in goods trade between Kenya and the UK	5
3.2 Understanding Kenya's competitiveness in the UK	7
3.2.1 Are Kenyan exports to the UK volatile or stable?	10
3.2.2 Export specialisation	11
3.2.3 The goods export competitiveness matrix	13
3.3 Trade in services	17
4. UK foreign direct investment in Kenya	22
5. Assessing constraints and opportunities in the trade and investment climate	26
5.1 Investment climate	26
5.2 International market access	30
5.3 Opportunities for Kenya to overcome constraints	31
5.4 Next steps in the road to industrialisation and job creation	36
References	38
Appendices	41
Appendix 1: Detailed breakdown Kenyan exports to UK (by HS Chapter)	41
Appendix 2: Coefficient of variation for Stability Index (Goods)	44
Appendix 3: Revealed comparative advantage (RCA)	46
Appendix 4: Methodology for categorizing export competitiveness	63
Appendix 5: Export competitiveness categories (sunrise, cash cow, intermittent, laggard)	64
Appendix 6: Service exports from Kenya to UK	70
Appendix 7: Stability index for services - coefficient of variation	71
Appendix 8: FDI stock in Kenya by country	72
Appendix 9: Leather value chain case study: Doing Business in Kenya	73
Appendix 10: Doing Business Kenya and its competitors	78

SUMMARY FINDINGS

This note discusses the current state of trade patterns and investment flows between the UK and Kenya, develops tools relevant to help identify key products and promising sectors for export, and proposes a range of policy measures to support these sectors. It is undertaken jointly with the Export Promotion Council (EPC) in Kenya in support of the national export development and promotion strategy for Kenya 2017-2022. It identifies appropriate sectors for UK exports and discusses a range of measures to increase trade and business linkages between Kenya and the UK.

Kenya-UK trade and investment trends

We begin by analysing the current status of goods trade. The analysis shows that total exports of Kenyan goods have increased, but the value and share of those destined to the UK has declined markedly over the last two decades. **The UK's share in Kenyan exports fell from 16% in 2001 to 7% by 2014.** This was in part due to a drop in Kenyan horticulture exports because of Kenya's non compliance of EU maximum residue limit (MRL) requirements, for instance within the beans category (Kenya's largest fresh vegetable export earner) exports fell by 26% between 2012 to 2014 (ITC 2018). The reason is the UK diversified fresh flower imports to Ethiopia and Colombia and coffee imports from Cote d'Ivoire (shown in Table 6). Most Kenyan exports to the UK are categorised as raw materials, while there is a high content of imports of intermediate and capital goods from the UK.

Over the last decade (2006-2016) on an average 86% of Kenya's income from exports to the UK came from only 20 products. These include **high-value horticulture (which includes fresh vegetables, flowers and fruit) and beverages (coffee and tea).** A disaggregated product analysis suggests there has not been a major change in export diversity across harmonised system (HS) chapters, but that there has been some diversification within HS chapters. The dependence on the 'fresh' horticulture, loose tea and coffee export categories often involves low value addition. Unless upgrading occurs, this may lead to a race to the bottom, with few increased opportunities to substantially benefit the Kenyan population in the long run.

Kenya is losing market share in the UK. Kenya's export share of its top 20 products in UK imports has halved from 26.7% in 2001 to 13.5% in 2016. Especially in areas of black tea and fresh roses, which are Kenya's main foreign exchange earners. Kenya is facing significant competition in the UK from other East African countries: Rwanda, Ethiopia and Tanzania. This implies that Kenya either has to improve marketing of its existing products or diversify.

There are severe data limitations on trade in services, but the data that do exist suggest **service exports to the UK increased 3.6 times in value terms between 2001 and 2012.** Transportation and travel services make up the largest share of exports (almost 86% of the total) of services to the UK, followed by insurance and then financial and government services, respectively. The growth rate of financial and insurance services, software, and hardware information and communication technology (ICT) is swiftly overtaking transportation and travel.

Kenya has a relatively small share in the stock of UK foreign direct investment (FDI) to Africa, which itself is only 2% of the total UK FDI stock (2015). Conversely, when looking at Kenya's inward flows of FDI, the **UK is a major source, contributing 40% of Kenya's total FDI inward flows in 2012.**

To date, there are a total of 216 UK firms recorded to have invested in Kenya (data from the Kenyan Investment Authority), 52% of which are invested in services such as marine transport, real estate development, and hotel and conference centres. This is followed by the 36% invested in manufacturing, in areas such as electronics, paints, chemicals, cement, garments, renewables and housing. Finally, 10% invest in horticulture and agro-processing.

Prioritising export products to the UK

Using detailed trade statistics, we develop a comprehensive ‘product matrix’ which identifies the promising products that will enable Kenya to increase export earnings. This matrix helps governments to prioritise certain products and sectors. It is constructed using a competitiveness index, which consists of three indicators: i) the diversity (including new product development) of product exports to the UK, (ii) the stability of exports to the UK and (iii) the revealed comparative advantage or export specialisation (ES) of Kenyan products.

The first quadrant (upper left) of the product matrix shown in the figure below consists of (i) ‘**sunrise**’ products, which are relatively new products (post 2007), relatively high stability and high ES index. Sunrise products tend to be promising new priority goods for trade with the UK, where UK demand is growing and Kenya needs to start building more competitiveness. We identify imitation **jewellery, leather accessories, men and girl’s apparel (cotton and synthetic fibre) and light manufacturing for mechanical equipment** as key priority products. Thus, Kenya needs to deepen expansion efforts into these goods.

Figure ES1: Categorising Kenya’s export products to the UK

Sunrise	Cash cow
<div style="display: flex; justify-content: space-around;"> <div style="background-color: #c4a33d; padding: 10px; width: 45%;">Vegetable dyes</div> <div style="background-color: #c4a33d; padding: 10px; width: 45%;">Leather shoes and accessories</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #c0392b; padding: 10px; width: 45%;">Tea and coffee</div> <div style="background-color: #c0392b; padding: 10px; width: 45%;">Flowers (roses)</div> </div>
<div style="display: flex; justify-content: space-around;"> <div style="background-color: #c4a33d; padding: 10px; width: 45%;">Cotton T-shirts, boys trousers</div> <div style="background-color: #c4a33d; padding: 10px; width: 45%;">Light manufacturing of small mechanical apparatus</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #c0392b; padding: 10px; width: 45%;">Fresh vegetables</div> <div style="background-color: #c0392b; padding: 10px; width: 45%;">Fresh fruit</div> </div>
Intermittent	Laggards
<div style="display: flex; justify-content: space-around;"> <div style="background-color: #2980b9; padding: 10px; width: 45%;">Women’s aprons/ clothing</div> <div style="background-color: #2980b9; padding: 10px; width: 45%;">ICT hard - infrastructure parts</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #95a5a6; padding: 10px; width: 45%;">Footwear soles</div> <div style="background-color: #95a5a6; padding: 10px; width: 45%;">Linen, kitchen and bathroom</div> </div>
<div style="display: flex; justify-content: space-around;"> <div style="background-color: #2980b9; padding: 10px; width: 45%;">Parts small apparatus</div> <div style="background-color: #2980b9; padding: 10px; width: 45%;">Worked semi-precious stones</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #95a5a6; padding: 10px; width: 45%;">Prepared food cereals</div> <div style="background-color: #95a5a6; padding: 10px; width: 45%;">Printed items – books</div> </div>

The second quadrant (upper right) contains ‘**cash cow**’ products. These are older and have been exported by Kenya to the UK since at least 2001. These have the highest stability and ES scores compared to other products, and thus are critical items in which Kenya has a long-term competitive advantage. The list primarily includes **fruits and vegetables (fresh or chilled), flowers, coffee and tea.**

‘**Intermittent**’ products (shown in the bottom right, i.e. the third quadrant) are highly volatile, with more sporadic sales, and both relatively low ES and stability even though they are new. We suggest Kenya should approach exports of these products with caution. This is because they have the latent possibility of gaining a comparative advantage. However, this may not be immediately eminent and would require significant investment both downstream and upstream to enable the products to move into a ‘Sunrise’ position. Some examples include of products include **finished precious and semi-precious stones, manufacturing parts of certain small electrical appliances and women’s household clothing (aprons).**

The final category, ‘**laggards**’ (shown in the bottom right of the matrix, in the fourth quadrant), are old products with low stability and ES indices, such as those without long-term potential and that we believe have ‘run their course’. Kenya should avoid sectors such as **beeswax, waste and scrap, prepared foods (especially cereals), printed books and home linen**, as Kenya’s ES is going up but the UK’s demand is falling.

The above product matrix provides an overall picture of the ‘status’ of Kenyan product sale to the UK and can help to prioritise promising export products and sectors. **Kenya needs to do more to diversify beyond its Cash Cows and invest in Sunrise products.**

Identifying obstacles to improve export performance and investment climate in relation to the UK

Our review highlights improvements and obstacles in domestic and international factors that affect Kenya’s investment climate and export performance. There has been significant improvement in several domestic policies over the last decade (highlighted in Table ES1).

Table ES1: Kenya’s policies affecting exports

Policies that are improving (but need continued emphasis)	Policies in need of improvement
<ul style="list-style-type: none"> • Business registration services • Simplifying the tax environment • Customs: significant reduction in clearance processes and gaining licences at Mombasa port • Movement on infrastructure projects such as the Standard Gauge Railway and LAPSSET and the Northern Corridor, which will reduce traffic congestion, and provide quicker turnaround times for products • Significant investment in mobile banking (MPesa) and ICTs’ hard and soft infrastructure, including developing the i-hub • Poor energy markets: costs of production and pricing. 	<ul style="list-style-type: none"> • Poor backward linkages within value chains • Issues with counterfeiting and piracy • Lack of transparency in matters of land acquisition • Widespread corruption, despite efforts by the Ethics and Anti-Corruption Commission.

Unilateral trade preferences allow for international market access to the EU (e.g. Generalised System of Preferences) and the US (e.g. African Growth and Opportunity Act). However, these can also be insecure. For instance, AGOA might expire in 2026. Along with this, access to regional markets is incomplete, as the CFTA needs ratification by member states beyond Kenya. There is also a need to invest in infrastructure to be able to overcome non-tariff barriers, especially those linked to SPS requirements and other food, labour and sustainability standards. Furthermore, investment and support is needed to re-market and re-brand Kenyan products, including for the UK market, thereby increasing value addition. Another factor is the need to invest in logistic and storage infrastructure (e.g. more rail carriages, cold storage vehicles and high-quality warehouses) that can support more containers for transport within the country to port areas and airports for export.

If Kenya is to build on the promising sectors and its recent policy emphasis (e.g. in the Presidency’s Big Four agenda) the country will need to invest in special economic zones (SEZs) and industrial parks centred on leather and textiles. There are also important opportunities for Kenya to invest in hydro, solar, geo thermal and wind energy, ICTs and agro-processing. While there are currently several clusters and export processing zones (EPZs), the Big Four agenda of Kenya’s government seeks to expand and industrialise by setting up SEZs in key areas of interest. Developing zones can overcome some of the domestic and international market access issues and will facilitate exports and promote industrialisation.

Figure ES2 summarises broader policy areas where the Kenyan government and other institutional actors have an opportunity to improve and ease certain conditions to facilitate exports and improve the investment climate.

Integrating backward linkages will be critical in raising value addition, e.g. through using more inputs such as seeds, cotton and pesticides. There is a high level of imported content in backward linkages, reducing the net value generated for the export of products. There is also a need to significantly reduce the cost of electricity in Kenya, which makes up almost 30% of unit cost within garments (to use one example). The government needs to provide better guarantees for feed-in tariffs to eliminate pricing risk, and also offer priority purchase and guaranteed access to the national grid. There should also be systemic changes such as developing electricity markets through the introduction of auction systems.

Figure ES2: Measures to make use of opportunities to export more to the UK



Another major opportunity for Kenya to industrialise rapidly is through developing special economic zones, with ecosystems that can support the growth of firms and diversification into new markets and products. These may involve expanding access to long-term finance, such as moratoriums, duty drawbacks and managing interest rates, while simultaneously improving logistics to ensure the timely turnaround of exports (e.g. upgrading and digitising warehouses).

Building social capital through partnerships will help the Kenyan government embed the private sector within the country. Government relationships with investors have tended to develop very little beyond the provision of Export Processing Zones (EPZ) and the issuance of permits and certificates. The public private partnership act (2013) was promulgated to support investment of the private sector. To develop trust, the Kenyan Government, KenInvest and Export Processing Zone Authority (EPZA) should commit themselves to implementing a coordinated programme of investor aftercare.

Each of these measures need further examination and will differ significantly depending on the sector. In this paper, we briefly discuss a range of Sunrise sectors, with a special emphasis on leather.

The current paper introduces a simple framework for organisations (such as the EPC) to increase Kenyan exports, particularly to the UK. The first step is to **prioritise products** that are competitive for UK markets (using the product matrix of Sunrise, Cash Cows, Intermittent and Laggards). The second step is to **identify the constraints and opportunities** to improve export strategies and investment promotion. This involves performing deep dives into specific selected Sunrise products and sectors. The third step is to **learn** from experiences in Kenya and elsewhere and input feedback mechanisms to check functioning of policies. The fourth and final step is to **sustain** the competitive advantage. These four steps of Prioritise-Identify-Learn-Sustain, provide a robust basis to develop export strategies.

This Prioritise-Identify-Learn-Sustain framework can be used to examine the following sectors (and more):

- Labour-intensive manufacturing of goods such as leather, textiles/garments and light manufacturing of mechanical/electrical equipment requires the development of special economic zones and the attraction of investment.
- Agro-processed goods such as tea and coffee are long-standing exports from Kenya. Branding and non-tariff barriers (e.g. standards) remain key and can be barriers or enablers.
- Financial and communication services, along with exports, have prospects for growth when constraints linked to developing hard and soft infrastructure are addressed.

1. INTRODUCTION

The Export Promotion Council (EPC) in Kenya aims to develop Kenyan exports including to the UK. One way to do this is through diversifying trade, by both deepening and strengthening business linkages between Kenya and the UK. This paper discusses the most promising sectors to increase goods and services exports to the UK, along with highlighting the key impediments to Doing Business and investment that prevent the expansion of firms, EPZs, special economic zones (SEZs) and affect the potential to industrialise. We develop a comprehensive 'product matrix' to guide this process, which identifies key products of interest that will enable Kenya to increase export earnings. This matrix helps governments prioritise certain products and sectors. The product matrix is constructed using a competitiveness index based on new data analysis. We also devise a range of possible obstacles and opportunities to improve the business climate and areas that constrain export growth.

This paper begins describing the general trends of trade between UK and Kenya (section 2), followed by an examination of trends of Kenyan exports of goods and services at CN-8-digit level with the UK (section 3). This section highlights the goods and service areas where Kenya is currently competitive (or could become competitive) in its exports to the UK. Furthermore, it also identifies goods and services with weak export performance. This helps inform the new Big 4 industrialisation agenda in the country.

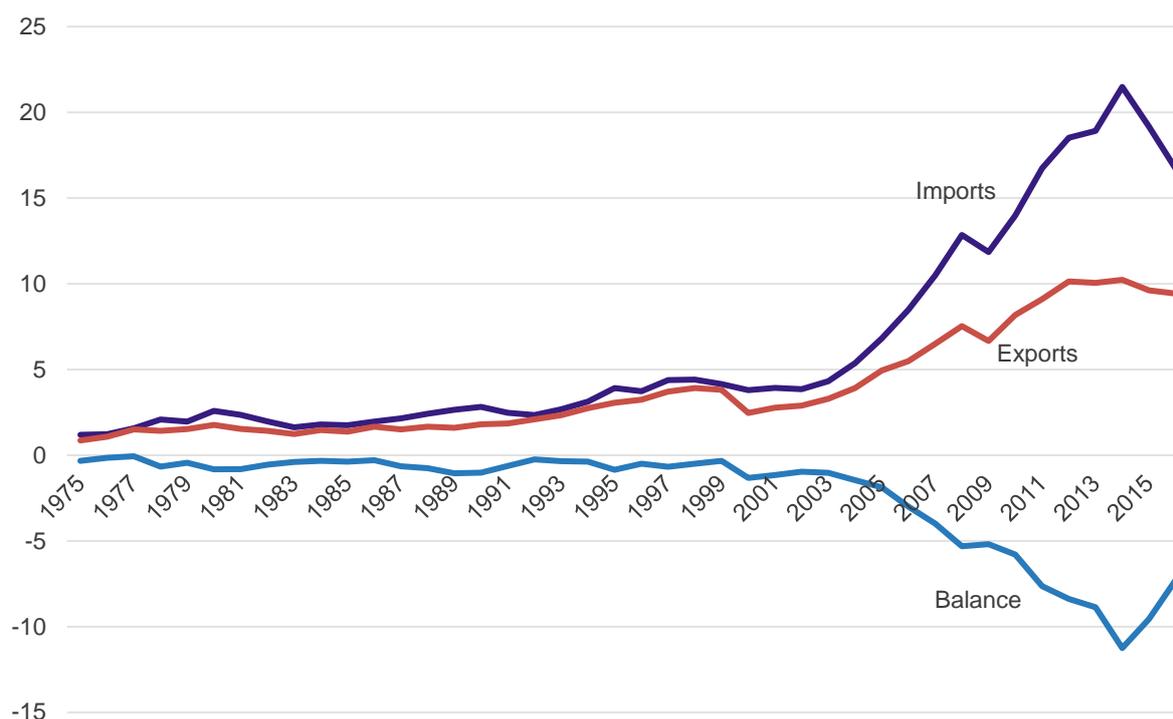
Section 4 discusses the patterns of inward FDI from the UK in Kenya. This is followed by a review of the major opportunities and barriers to Kenyan exports to the UK, including a discussion on a range of policy barriers that need to be addressed (Section 5). This section also provides an in-depth example of the leather sector, which offers high growth potential for Kenyan export to the UK. The concluding section offers policy suggestions on how to take forward such an agenda of export promotion and diversification.

2. TRADE IN KENYA

2.1 Kenyan exports and imports: key trends

Over the last 40 years, exports and imports of goods and services have risen to \$9.4 billion and \$16.7 billion respectively in 2016 (Figure 1), leading to a negative trade balance of \$7.3 billion. The value of exports rose between 2000 and 2014 (with the exception of 2009) but fell in 2015 and 2016.

Figure 1: Kenyan trade in goods and services (\$, billion), 1975–2016



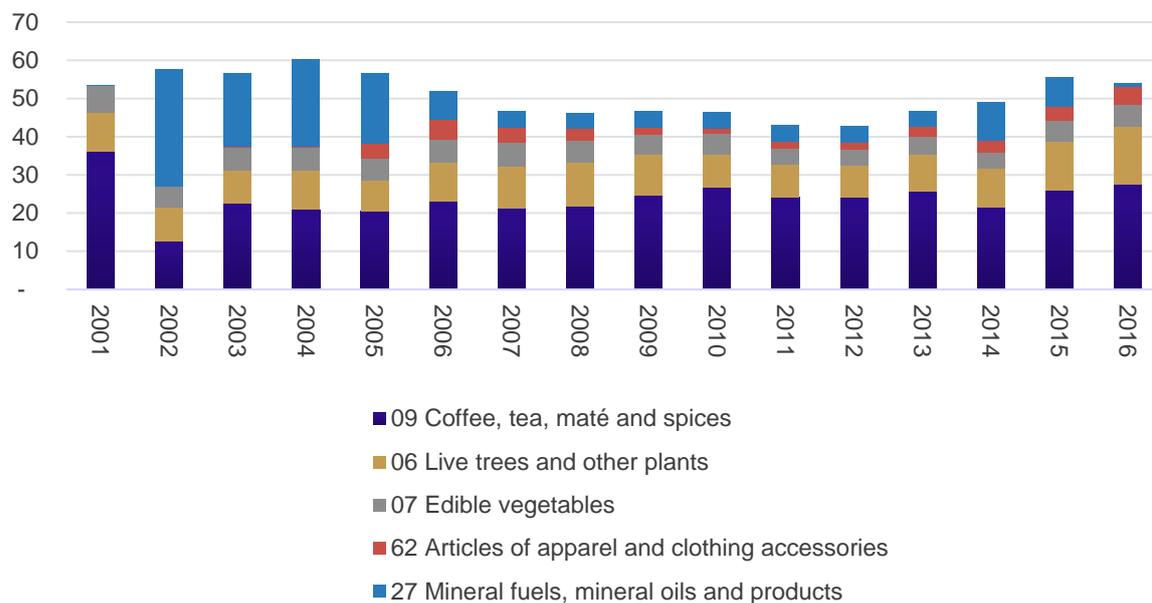
Source: World Development Indicators (2018)

So far, Kenya's main source of growth has been domestic consumption, which has led to a large negative current account balance in goods (World Bank, 2012). This makes it vulnerable to external shocks such as high oil prices or volatility in exchange rates. Building export competitiveness and creating an attractive investment climate will help the country's resilience and long-term economic transformation.

2.2 Kenyan exports and imports: what are the main products?

Figure 2 shows the development of Kenya's top export products. The most important export items at the HS2 level include coffee and tea (09), live trees and other plants (06), and edible vegetables (07), which are all increasing at a steady pace. Exports of mineral fuels, mineral oils and products (27) have decreased since 2001, while apparel (62) has been volatile over the last 15 years. These five products accounts for more than 50% of Kenyan exports.

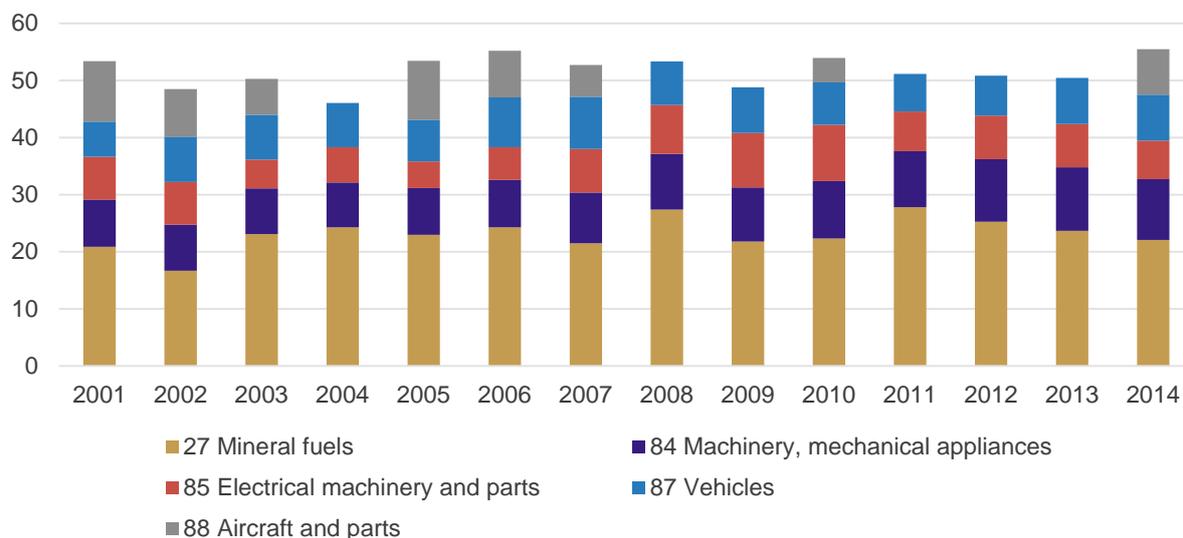
Figure 2: Kenya’s top five exports to world (% of total Kenyan exports)



Source: Calculated from International Trade Centre (ITC) trade map.

Figure 3 shows key import items. There is a high reliance (over 25% of total share of imports) on petroleum products and capital goods, especially for commercial purposes (machinery, aircrafts and parts), which ensures the current account is in deficit (standing at between -5% to -10% of GDP in the last decade).

Figure 3: Kenya’s top five imports from world (% of total Kenyan imports)

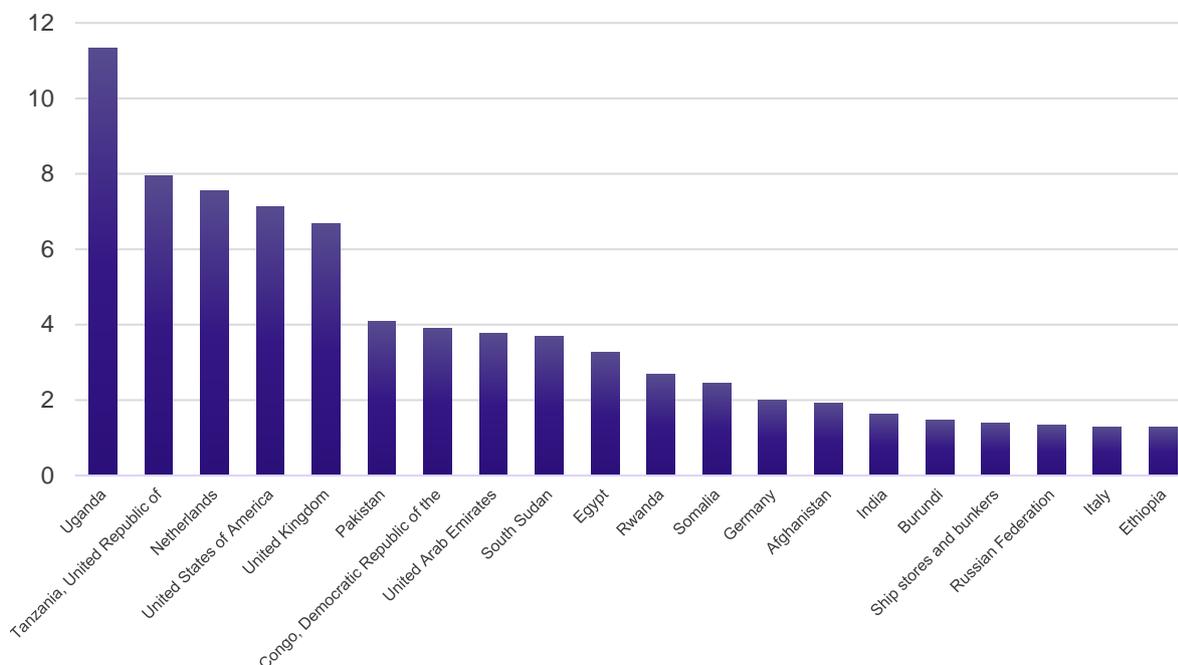


Source: Calculated from ITC trade map.

2.3 Key export destinations

The main export destinations are regional, including Uganda and Tanzania, which together take some 30% of Kenya exports. The UK is the fifth largest market for Kenyan products (about 7% of the value of total exports).

Figure 4: Kenya’s export destinations in 2014 (% of Kenyan exports by destination)



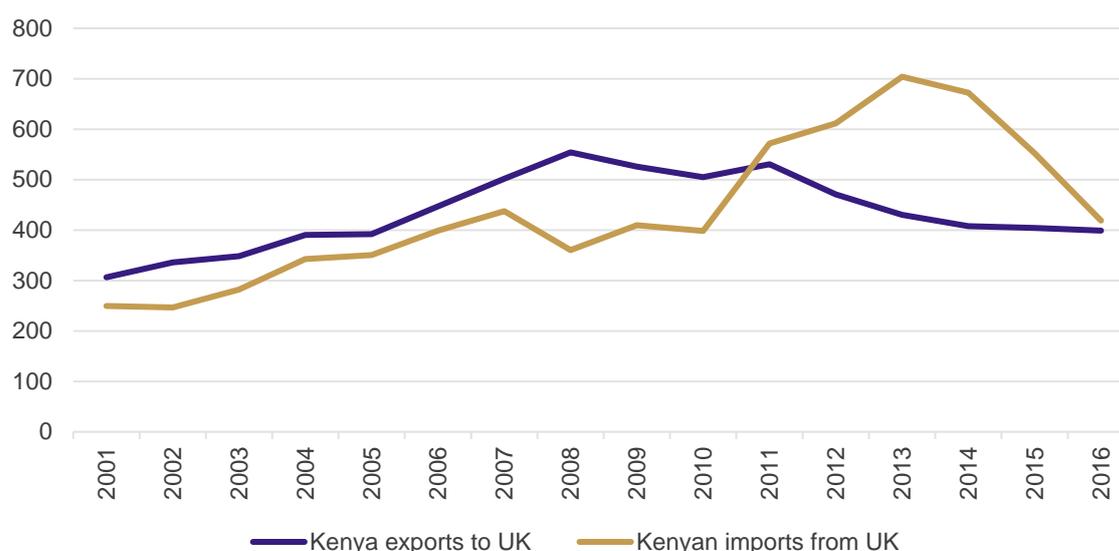
Source: Calculated from ITC trade map data.

3. KENYAN EXPORTS OF GOODS AND SERVICES TO THE UK

3.1 General trends in goods trade between Kenya and the UK

There are long standing trade relationships between Kenya and the UK. There was a steady increase in the value of exports from 2001 to 2007. However, since 2008, exports to the UK have decreased in value terms. In contrast, imports from the UK were on the rise, increasing sharply between 2010 and 2013, after which they began to fall considerably. There are at least three reasons behind the decrease in Kenyan exports to the UK. The first is the change in maximum residue limit (MRL) regulations. The European Union reduced the MRLs of certain types of pesticides applied to fruit and vegetables in 2009. Kenya violated this protocol and was banned from selling to European markets and given until September 2014, until they adjusted their practices. Despite meeting EU MRL requirements horticulture exports of beans continue to fall (over 40% between 2012-2016). The second reason for the fall in exports is because, UK has started importing flowers from Ethiopia and Colombia and coffee from Cote d'Ivoire, thus impinging on Kenyan export earnings. The third reason relates to the volatile and depreciating Kenyan Shilling, which eroded significant value (see Table 6). The trade balance between Kenya and the UK remained positive between 2001 and 2010, after which it turned negative.

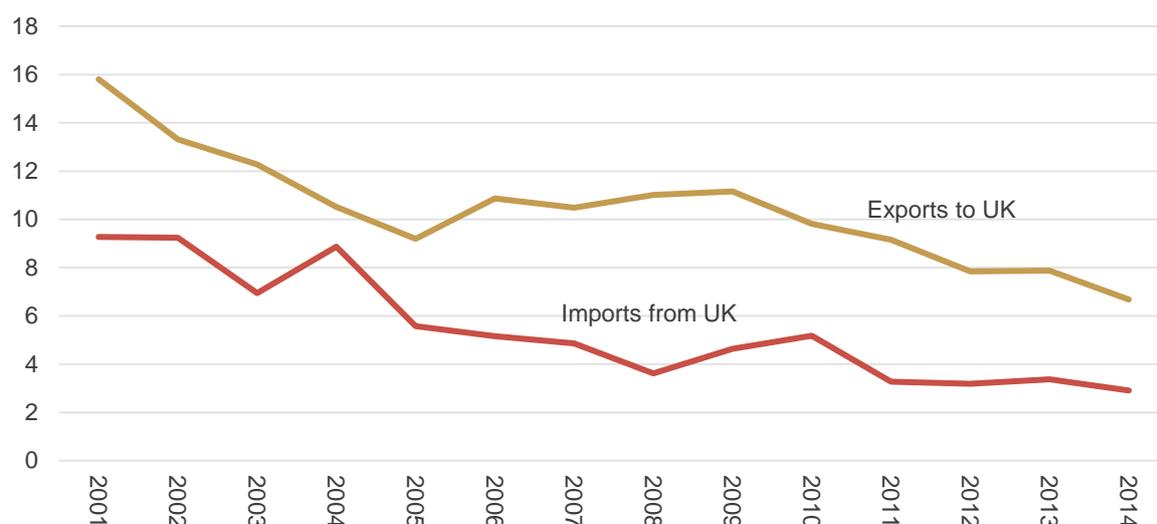
Figure 5: Kenya's trade with the UK (value \$, million)



Source: Calculated using data from ITC trade map.

Figure 6 presents the trade share of the UK in Kenya's total exports. The share has been declining continuously: it stood at over 16% in 2001 and reached approximately 7% by 2014. This has also been accompanied by a constant decrease in the share of UK in Kenyan imports, from almost 10% in 2001 to less than 3% by 2014. This suggests that Kenya is diversifying, by increasingly trading with other countries, while continuously losing export markets with the UK.

Figure 6: Kenya's share in trade with the UK (as a % of total trade)



Source: calculated using data from ITC trade map.

Most Kenyan exports to the UK are categorised as raw materials, whilst there is a high content of intermediate and capital goods in imports from the UK (shown in the table below). There has been a clear indication that exports across all the categories to the UK have decreased, along with a fall in the import of capital goods from the UK.

Table 1: The share of Kenyan exports and imports to the UK

Value of exports/imports	% value of export of goods to the UK (2010)	% value of export of goods to the UK (2013)	% value of import of goods from the UK (2010)	% value of import of goods from the UK (2013)
Raw materials	37.9	26.9	0.4	0.8
Intermediate goods	2.8	0.5	8.8	9.9
Capital goods	0.2	0.1	67	50.4
Other*	59.1	72.5	23.8	38.7

Source: Calculated from WITS database.

*Other includes food products, fuels, consumer goods, vegetables, wood, metals.

3.2 Understanding Kenya's competitiveness in the UK

In this section, we unpack the different components of measuring export competitiveness of Kenyan goods trade with the UK. The components include: export specialisation (ES), stability of exports and newness of the products exported. After discussing each component, we develop an index of export competitiveness and disaggregate the index into four types. These include 'sunrise' (highly competitive products ready for expansion), 'cash cows' (stable products where Kenya enjoys significant comparative advantage), 'intermittent' (products that are volatile and have limited probability of expansion) and 'laggards' which are products that appear have run their course and no longer provide major benefits or comparative advantage to Kenya.

Kenyan exports to the UK are concentrated in a few agricultural sub-sectors (including the agro-processing sub-sectors), as shown in Table 2. Some of these products are not of high value addition. For instance, in 2007, horticulture was exported at \$2402 per tonne and the value fell to \$2359 per tonne by 2014. On the other hand, others are high value products. Investments in downstream branding and labelling enabled a significant increase in coffee and tea unit prices. In 2007, coffee and tea were exported at \$2802 and \$1875 per tonne respectively, but by 2014, values for coffee had increased significantly to \$4732 per tonne (a 70% increase from 2007), while tea increased to \$2331 per tonne (an increase of 25% from 2007) (CBOK, 2018).

Table 2: Top 10 Kenyan exports to UK (% of total exports to UK)

HS Chapter	2001 (% of total exports to UK)	2007 (% of total exports to UK)	2014 (% of total exports to UK)	2014 (\$ million)	Change 2001– 2014 (%)
07 Edible vegetables and some roots and tubers	33.3	37.4	31.3	127.6	59.6
09 Coffee, tea, maté and spices	45.3	27.9	29.6	120.7	10.8
06 Live trees and other plants; bulbs and roots	12.7	20.3	26.3	107.3	251.0
08 Edible fruit and nuts; peel of citrus fruit or melons	0.3	0.6	2.9	12.1	1602.1
95 Toys, games and sports requisites; parts and accessories thereof	0.2	1.1	1.7	6.9	1722.3
20 Preparations of vegetables, fruit, nuts or other parts of plants	4.2	1.5	1.2	4.8	-52.0
27 Mineral fuels, mineral oils and products of their distillation	0.1	0.0	1.1	4.5	2826.0
24 Tobacco and manufactured tobacco substitutes	0.9	0.2	1.0	4.1	87.9
14 Vegetable plaiting materials; vegetable products	0.2	0.0	1.0	3.9	760.6
74 Copper and articles thereof	0.1	3.0	0.9	3.7	3305.5

Source: Calculated from ITC trade map.

Note: See Appendix 1 – detailed breakdown at HS chapter of Kenyan exports to the UK between 2001 and 2014.

We further disaggregate goods trade by using the Combined Nomenclature at 8-digit level (CN-8) and examine (i) the diversity (including new product development) of exports to the UK(ii) the stability of exports to the UK and (iii) the revealed comparative advantage or export specialisation (ES) of Kenyan products. Together these factors determine Kenya’s export competitiveness index.

Export diversification is important because developing countries tend to be dependent on relatively few primary commodities for their export earnings. Figures 7 to 9 highlight the percentage of specific products in total UK imports from Kenya in 2001, 2007 and 2016. The results show that exports of high-value agricultural products (especially tea and horticulture) dominated Kenyan exports to the UK between 2001 and 2016. Agriculture has formed the most important source of exports to the UK across all the years.

Figure 7: Share of Kenya in UK imports by product (2001)

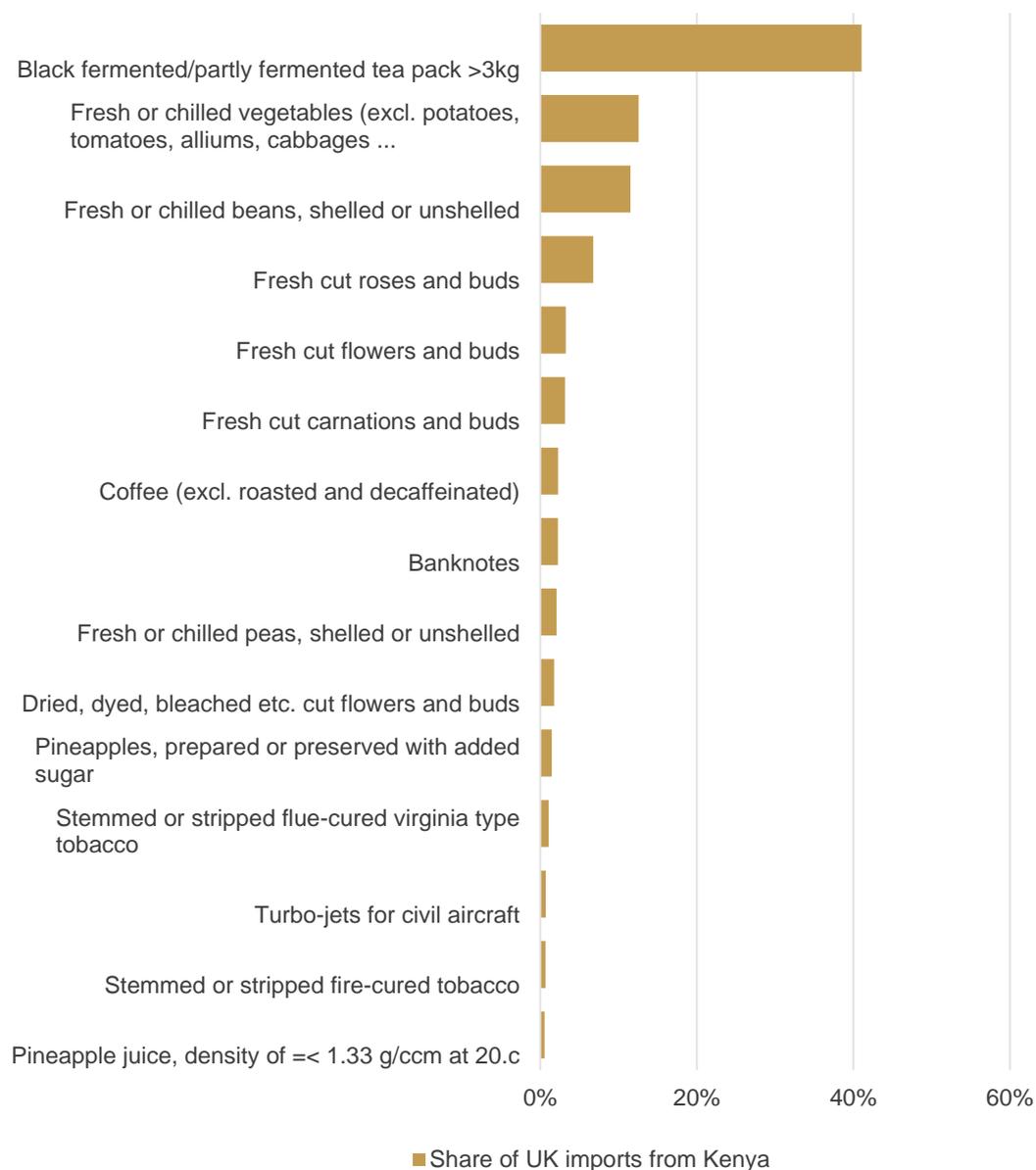
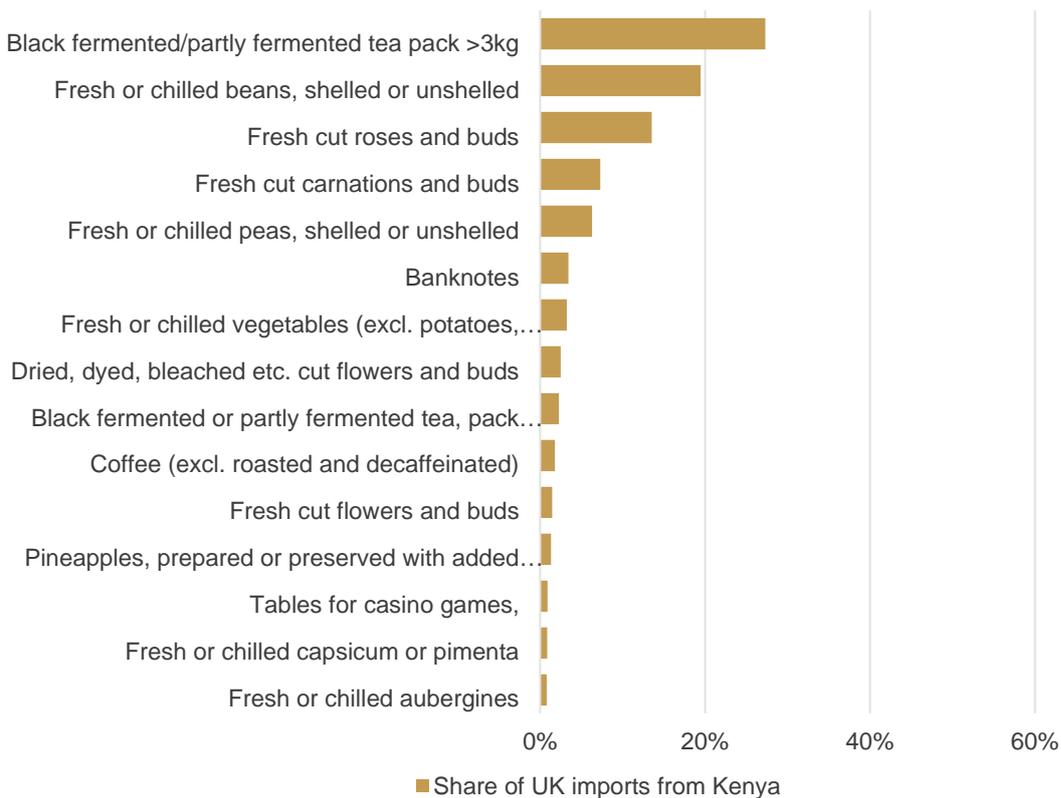
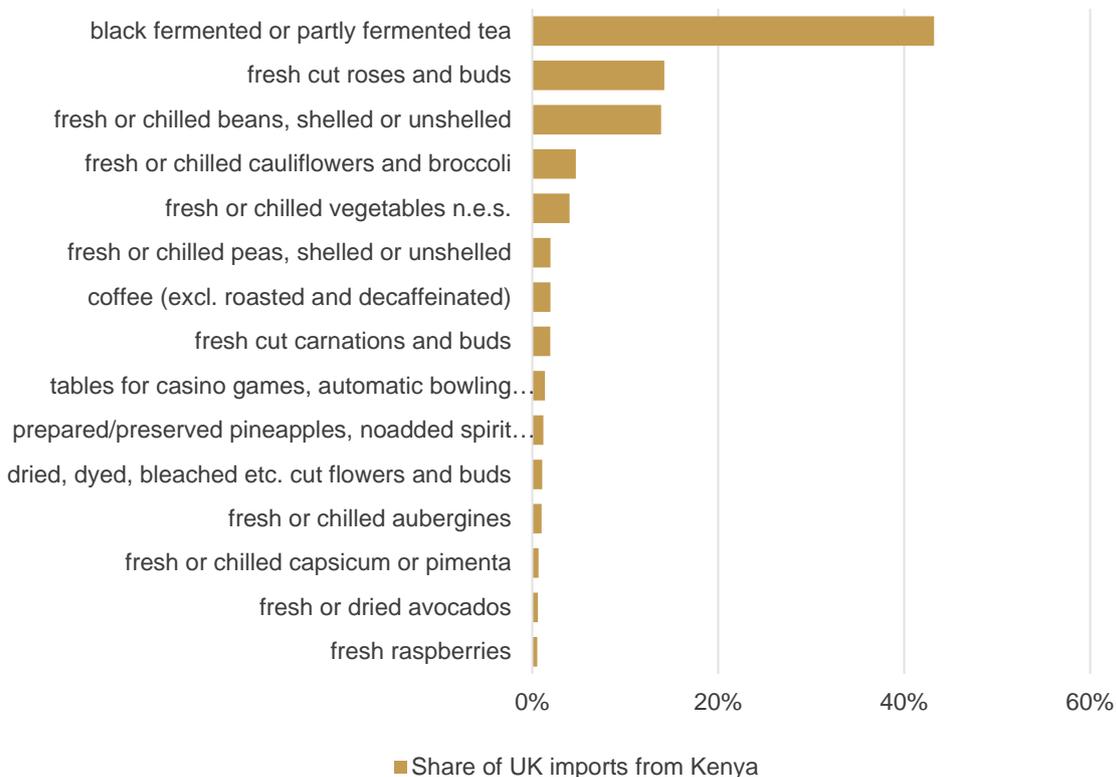


Figure 8: Share of Kenya in UK imports by product (2007)



Source: Derived from UK data obtained from ITC Trade Map.

Figure 9: Share of Kenya in UK imports by product (2016)



Source: Derived from UK data obtained from ITC Trade Map.

The results illustrate that Kenya has not been able to diversify its exports markedly and the structure of exports has not changed significantly between 2001 and 2007. Even though between 2007 and 2016, several new products emerged¹ that did not feature between 2001 and 2007, these products have grown very slowly and not been able to significantly alter the dominant export structure. This suggests that exports have not sufficiently diversified to the UK and there is a need to push towards new products to improve Kenya's market share.

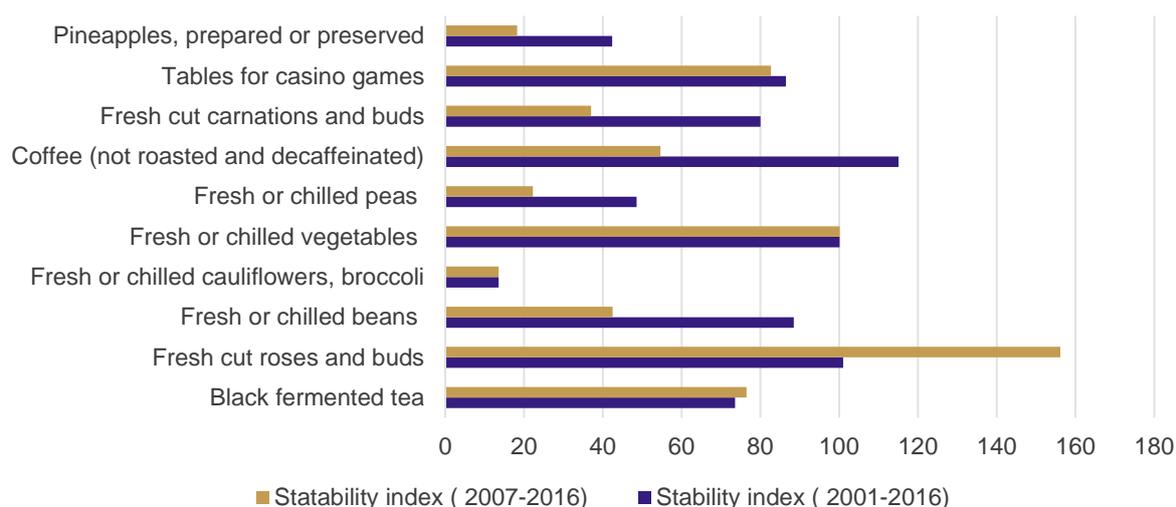
3.2.1 Are Kenyan exports to the UK volatile or stable?

The stability of export earnings is another way to assess the strength of bilateral trade. The volatility, seasonality and uncertainty in export earnings affect GDP, jobs and long-term capacity building. Hence, we examine the instability in Kenya's exports to the UK (or UK imports from Kenya) across key CN-8 products to UK's imports from the rest of the world (ROW), to evaluate whether Kenya is a stable trading partner.

The stability index is constructed as the coefficient of variation (CoV), which is the standard deviation (of export values) as a percentage of the arithmetic mean over the time of 2001 to 2016, and the shorter range of 2007 to 2016 to gauge a more recent picture. We compare Kenyan export stability (or volatility) to the UK versus UK imports from the ROW. To be able to develop a comparable measure, the CoV value for UK imports from Kenya is set at a threshold of 100. If the value is over 100, there is less stability in UK's imports from Kenya compared to UK imports from the ROW. If the value is less than 100, UK imports from Kenya are more stable than UK imports from the ROW.

Figure 10, below, presents the stability index for the top 10 UK imports from Kenya. The results illustrate that the Kenyan exports to the UK have remained more stable than UK imports from the ROW between 2001 and 2016 (except in coffee, but only marginally). In more recent times, between 2007 and 2016 (except for fresh cut roses and buds (06031100)), Kenyan exports to the UK have been more stable than to the ROW, suggesting that the UK is a stable trading partner of Kenya.

Figure 10: Stability index-UK imports from Kenya vs the rest of the world



Source: Calculation based on data from ITC trademap (list products in vertical order).

¹ These include 07041000 (fresh or chilled cauliflowers and broccoli), 95049080 (tables for casino games, automatic bowling alley equipment and other funfair, table or parlour games), 06031100 (fresh cut roses and buds), 08102010 (fresh raspberries), 08044000 (fresh or dried avocados) and 06031200 (fresh cut carnations and buds).

Some products have become more stable over time. For example, coffee (excluding roasted and decaffeinated forms) (09011100), fresh cut carnations and buds (06031200), and fresh or chilled beans (Vigna) (07082000) were less stable prior to 2007 and have gradually become more steady exports to the UK. Appendix 2 has a detailed breakdown of the product level CoVs and index values.

3.2.2 Export specialisation

We examine the export products where Kenya has specialised or has a “revealed comparative advantage” to the UK. This means drawing out the relative importance of key exports from Kenya to the UK. By modifying the definition from Balassa (1965 and 1979), a country has an ES in a particular product if it (in this case, Kenya) exports more than its ‘fair’ share to a specific market (in this case, the UK). This is the ratio of the share of a product in a country’s total exports to the share of this product in imports to specific markets or partners. Therefore, unlike a revealed comparative advantage (RCA) that explains the ‘fair’ share (i.e. the share of total world trade that the product), the ES index achieves more nuances by unpacking bilateral specialisation.

Data from the CN database used to calculate ES by CN-8 category, which consists of over 14,000 products, indicates that Kenya traded 354 (or 2.5% of the total) with the UK in 2016. Some of those products have a high value on the ES index. This indicates the relative importance that Kenya places on items such as fermented tea and fresh beans. The table below lists the top 15 goods ES index. The data suggests that Kenya had an ES preference in 137 of the 354 products exported to the UK (i.e. index values here are greater than one) in 2016.

Table 3: Export specialisation index by CN-8

Item	ES Index
Black fermented tea	969.39
Fresh or chilled beans	773.14
Fresh cut roses and buds	417.70
Nuts, fresh or dried	405.88
Crude beeswax and other insect waxes	401.83
Live insects (excluding bees)	324.92
Pineapples, prepared or preserved	323.42
Fresh or chilled vegetables	273.92
Fresh or chilled peas shelled or unshelled	235.81
Crude fixed vegetable fats and oils	221.02
Fresh cut carnations and buds	193.08
Greasy wool, including fleece-washed wool	169.14
Fresh or chilled aubergines 'eggplants'	159.38
Pineapples, prepared or preserved with sugar content	155.15
Fruit stones and kernels and other vegetable products	143.89

Source: Calculated from CN database from the EU data portal.

This analysis points to the importance of agriculture, especially non-traditional products such as high-value fresh produce, and tea and coffee. This is not surprising because Kenya has conducive ecological conditions producing excellent quality crops with high yields, a highly trained supplier base (farmers) and historical links to the UK.

We also examine which products face increased demand in UK markets. We track the evolution of UK demand, vis-à-vis the evolution of Kenya's ES. Using these two criteria describes four possible scenarios:²

1. Products where both Kenyan ES and UK demand is growing.
2. Products where Kenyan ES is growing but UK demand is falling.
3. Products where Kenyan ES is falling but UK demand is rising.
4. Products where both Kenyan ES and UK demand are falling.

The ideal situation is to specialise in the production and trade of those products where both criteria (Kenya ES and UK demand) are rising: where Kenya would be gaining efficiency in products with increased demand in the UK. Many of these products are familiar, as they tend to constitute the main exported products. Those where the ES is growing but demand is falling may present certain risks, as specialisation may be moving towards products that the UK does not demand. The third category, where ES is falling but UK demand is rising, poses an interesting dilemma: in one respect, it suggests an opportunity for Kenya to develop, while in another, it indicates that competitors of Kenya are more efficient in producing and selling the product. The final category in which both the ES and demand are falling suggests a need to move away from the product.

To identify products under each of these groups, we use the annual growth rate of UK imports from the ROW between 2001 and 2016 as a measure of UK demand (the start year varies depending on when the product demand began). We would classify UK demand as strong if there is a positive and upward trend in demand. UK demand can be considered weak where there a fall in demand can be observed between 2001 and 2006 in the data. Meanwhile, we would classify ES as 'up' when we can see an increase in ES between 2001 and 2016, and 'down' if we can observe a decrease in the ES index during that time.

Given that the number of products meeting these criteria in each case is very large, we present, in Table 4, a summary of the main products identified. In order to limit the number of products, we select those 10 in each category where UK demand has grown or decreased the fastest or where the Kenyan ES is largest and demand is weak.

Overall, the results show that the third quadrant (with the ES decreasing and the UK demand increasing) is significantly diversified and Kenya has the potential to possibly expand its ES in areas such as garments, wooden furniture, data processing machines, specific machine appliances and instruments used in medical and surgical procedures. Appendix 3 has detailed information on all the relevant products.

² The methodology followed is similar to the SET report on *Supporting the preparation of Tanzania's second five-year development plan* (te Velde et al., 2016).

Table 4: Summary of products identified

	Strong UK demand	Weak UK demand
ES up	<ul style="list-style-type: none"> • Black fermented tea and partly fermented tea • Fresh or chilled beans • Nuts, fresh or dried, • Live insects (excluding bees) • Pineapples, prepared or preserved • Crude fixed vegetable fats and oils, • Fresh or chilled aubergines ('eggplants') • Fresh or chilled cauliflowers and headed broccoli • Unrooted cuttings and slips (excluding vines) • Fresh tamarinds, cashew apples, lychees, jackfruit and sapodilla plums 	<ul style="list-style-type: none"> • Crude beeswax and other insect waxes • Greasy wool, including fleece-washed wool • Fruit stones and kernels, and other vegetable products • Live ornamental fish (excluding freshwater) • Waste and scrap of alloy steel • Motor vehicles for the transport of goods (engines) • Mixtures of guavas, mangoes, mangosteens, papaws 'papayas' and tamarind • Articles of goldsmiths' or silversmiths' wares • Grain sorghum • Electronic instruments and appliances used in geodesy or topography
ES down	<ul style="list-style-type: none"> • Data-processing machines, automatic or digital • Parts of turbojets or turbo propellers • Machines, apparatus and mechanical appliances • Electrical machines and apparatus, • Data-processing machines, automatic and portable • Instruments and appliances used in medicine • Wooden furniture • Parts of electric sound or visual signalling equipment • Men's or boys' trousers and breeches of cotton denim • Fresh or dried guavas, mangoes and mangosteens 	<ul style="list-style-type: none"> • Parts of aeroplanes or helicopters • Banknotes • Instruments and appliances for aeronautical or space navigation • Statuettes and other ornaments • Fresh or chilled courgettes • Parts and accessories of printers, copying machines and facsimile machines • Articles for the conveyance or packaging of goods using plastic • Parts of machines and mechanical appliances with individual functions • Fresh cut chrysanthemums and buds • Parts and accessories for machine tools for working metal

3.2.3 The goods export competitiveness matrix

We assess the overall export competitiveness of various Kenyan products by categorising them into four types of product: Sunrise, Cash Cows, Intermittent and Laggards, with each a quadrant of the product matrix displayed below. A product is said to be **sunrise** (upper left–first quadrant) if it is a relatively new one³ that only started being exported after 2007 and has a relatively high stability and ES index. Sunrise products will tend to be promising for maintaining the competitiveness of Kenyan products in the UK. **Cash cows** (upper right–second quadrant) are older products that Kenya has been exporting to the UK since 2001. These have the highest stability and ES scores compared to other products, and are thus critical items in which Kenya has a long-term competitive advantage.

³ We use 2007 as a benchmark year to differentiate a new product from an old product. This is primarily because of a) the structural break and b) the fact it is within the previous decade.

Table 5: Summary of goods export competitiveness for Kenya

Sunrise (relatively stable, high ES and recent products)	Cash cow (relatively stable, high ES and old products)
<ul style="list-style-type: none"> • Dyes of vegetable origin, including dye extracts • Crude sesame oil (excluded for technical or industrial uses) • Parts of electrical machines and apparatus • Men's or girls' trousers and breeches, made from synthetic fibres • Parts and accessories for instruments and apparatus for measuring • Leather clothing accessories • Fish-hooks, mounted • Insulated food or beverage bags and shopping bags • Sealed beam lamp units • T-shirts, singlets and other vests (e.g. cotton, knitted or crocheted) • Parts of machines and mechanical appliances with individual functions • Metal furniture for offices • Footwear with leather; outer soles of rubber or plastics 	<ul style="list-style-type: none"> • Black fermented tea and partly fermented tea • Fresh or chilled beans • Nuts, fresh or dried • Pineapples, prepared or preserved • Crude fixed vegetable fats and oil • Fresh or chilled peas shelled or unshelled • Fresh or chilled aubergines 'eggplants' • Fresh or chilled fruits of genus capsicum or pimento • Dried, dyed, bleached, impregnated pineapples (prepared or preserved) with sugar content • Seeds of herbaceous plants cultivated mainly for flowers • Food preparations of flour, groats, meal, starch or malt extract • Coffee
Intermittent (not stable, low ES and recent products)	Laggard (not stable, low ES and old products)
<ul style="list-style-type: none"> • Ball-point pens • Hard disk storage drives for digital automatic data-processing machines • Women's or girls' aprons, overalls or smock-overalls • Parts of microphones, loudspeakers, headphones and earphones • Beer made from malt • Executive cases, briefcases, portfolios and school satchels • Sweet potatoes, fresh, chilled, frozen or dried • Transmission apparatus for radio-broadcasting • Dried, shelled cow peas • Axial fans • Precious and semi-precious stones (worked) • Spring, air or gas guns and pistols, truncheons and other non-firearms • Instruments and appliances for aeronautical or space navigation • Electronic instruments or apparatus for measuring or checking variables of liquids or gases • Potatoes in thin slices, cooked in fat or oil 	<ul style="list-style-type: none"> • Parts for compression-ignition internal combustion • Taps, cocks and valves for sinks, washbasins • Men's or boys' trousers and breeches of cotton denim • Books, brochures and similar printed matter • Toilet linen and kitchen linen • Women's or girls' trousers and breeches, made from synthetic fibres • Instruments and appliances used in dental sciences • Fire extinguishers • Articles of precious or semi-precious stones • Electronic instruments and apparatus for measuring • Prepared foods obtained by swelling or roasting cereals • Footwear with outer soles of leather • Food preparations of flour, groats, meal, starch or malt extract • Regulating or controlling instruments and apparatus

The third category, '**intermittent**' (bottom right–third quadrant) contains products that are highly volatile, whose sale is more sporadic, with low ES and low stability even though they are new. Thus, we suggest Kenya should approach exports of these products with caution. This is because they have the latent possibility of gaining a comparative advantage, although this may not be immediately eminent and would require significant investment both downstream and upstream to enable the products to move into a 'sunrise' situation. The final category, '**laggards**' (bottom right–fourth quadrant) represents old products with low stability and ES indices, such as those without long-term potential and that we believe have 'run their course'.

Appendix 4 provides more details on the methodology used to calculate each of the four categories. For space and presentation purposes, Table 5 shows only the top 10 products from each category. Appendix 5 provides a detailed list of the competitiveness index by category of sunrise, cash Cow, intermittent and laggards.

The results highlight some new sunrise avenues for Kenya, especially for products linked to imitation jewellery (current export value to the UK is \$0.3 million), fish hooks (\$0.5 million), insulated food bags (\$0.03 million), dyes (\$0.6 million), leather accessories and hides (\$0.06 million), apparel accessories, and electric machines, including small apparatus (\$0.04 million). The cash cow results reiterate the key export products where Kenya has ES. Disaggregating further to a 8-digit level of detail may allow for a more focused effort for Kenya to capitalise on investing in specific products rather than sectors. A more focused effort requires lower investment, but could still help to put Kenya on a path of transformation.

An initial preparatory work draft of the 'National Export Development and Promotion Strategy (NEDPS) 2017-2022', was developed in conjunction with the Ministry of Industry, Trade and Cooperatives and Export Promotion Council. The NEDPS will be a five-year sector development plan with defined actions on issues that affect export development. There are eight identified flagship sectors that were selected to drive Kenya's future exports development agenda including: agriculture, fisheries, livestock, manufacturing, mining, handicraft (SME), emerging sectors and cross cutting issues. Many of the flagship sectors have been highlighted within Sunrise and Cash Cows in the table above.

3.2.4 Key competitor analysis

We analyse the competitiveness of Kenya in the UK by comparing the shares of all countries selling Kenyan 'cash cow' products to the UK. The top 10 (15) products were responsible for 89% (92%) of total export earnings for Kenya in the UK in 2016.⁴ Kenya is facing significant competition in the UK in cash cow products, as other East African countries (Rwanda, Ethiopia and Tanzania) are gradually increasing market share in the UK. The table below illustrates the top two countries UK imports from, across each of the products, along with the country that is the fastest growing between 2012-2016. This allows us to identify the key countries that threaten Kenya's ability to maintain its export position.

The table shows that except for fresh cauliflower or brocolli, Kenya's importance in slowly eroding. For instance, between 2012-2016, Kenya's value of exports to the UK fell by 2.3%, while Ethiopia's increased by 88.7%. Interviews with stakeholders suggested that not only was the Ethiopian labour cheaper (although less productive), but the government provided incentives such as subsidising transportation costs. The unit costs for fresh cut roses was 35% higher in Kenya than Ethiopia (interview data). Kenya has not been able to significantly increase its share to the UK in coffee, because the quality and processing of the bean does not match

⁴ The total value of UK imports of Kenyan products was \$399.06 million, while the top 15 products values stood at \$367.87 million, and top 10 \$356,664

that of Cote d'Ivoire. Furthermore, Cote d'Ivoire has managed to market its products through fair trade and Rain Forest Alliance in more efficient ways than Kenya.

Table 6: Competitor analysis for top 10 exports from Kenya to UK

Product label	Countries	Value of UK imports in 2016 (US\$000)	Share of total UK imports of product % 2016	Avg annual % change in value of UK imports 2012-16	Fastest growing competitor in the UK
Black fermented tea	Kenya	172,372	60.8%	-0.9%	Rwanda
	India	47,973	16.9%	-13.5%	
	Rwanda	6,922	2.4%	20.6%	
Fresh cut roses and buds	Kenya	56,627	26.2%	-2.3%	Ethiopia
	Netherlands	130,559	60.4%	-3.5%	
	Ethiopia	9,246	4.3%	88.7%	
Fresh or chilled beans	Kenya	55,256	48.5%	-12.2%	Netherlands
	Spain	15,140	13.3%	21.9%	
	Netherlands	5,380	4.7%	22.0%	
Fresh or chilled cauliflowers and broccoli	Kenya	18,659	8.9%	48.2%	N/a
	Spain	142,320	68.0%	5.8%	
	Germany	8,704	4.2%	16.4%	
Fresh or chilled vegetables	Kenya	16,024	17.2%	-5.4%	Honduras
	Spain	25,516	27.3%	11.5%	
	Honduras	6,269	6.7%	95.5%	
Fresh or chilled peas	Kenya	7,800	14.8%	-8.7%	Zimbabwe
	Guatemala	18,913	35.8%	6.3%	
	Zimbabwe	8,944	16.9%	28.1%	
Coffee	Kenya	7,766	1.3%	-7.8%	Côte d'Ivoire
	Côte d'Ivoire	122,179	20.5%	360.8%	
	Brazil	109,318	18.4%	-5.5%	
Fresh cut carnations and buds	Kenya	7,696	12.1%	-16.6%	Turkey
	Netherlands	27,369	43.0%	-9.0%	
	Colombia	12,011	18.9%	-13.2%	
	Turkey	6,246	9.8%	31.8%	
Tables for casino games, automatic bowling alley equipment	Kenya	5,478	2.6%	32.9%	USA
	China	118,941	56.2%	5.3%	
	Ireland	28,973	13.7%	9.2%	
	USA	16,404	7.7%	12.7%	
Pineapples, prepared or preserved	Kenya	4,724	20.3%	45.7%	Germany
	Thailand	9,833	42.2%	-1.5%	
	Germany	1,150	4.9%	212.9%	
Dried, dyed, bleached, cut flowers and buds	Kenya	4,262	7.2%	-17.3%	Colombia
	Netherlands	35,506	60.4%	-5.1%	
	Colombia	17,122	29.1%	18.0%	

Source: Derived from ITC trademap data. Top 10 products responsible for 89% of Kenyan exports to the UK.

3.3 Trade in services

Kenya's Vision 2030 development programme prioritises the service sector, tourism, retail trade and business process outsourcing and financial services as one of the key drivers of transformation. This section delves into the emerging current trends in service exports to the UK, highlighting selected areas where Kenya can be most competitive when exporting services to the UK.

The National Accounts distinguish 11 service categories which have made up approximately 56% of GDP (value added at factor cost) over the last five years. Thus, services constitute a sizable portion of GDP, outstripping agriculture at 22%, mining and quarrying at 1%, manufacturing at 10% and construction at 5.4% (as in 2016). Using re-based data (2009), the table below illustrates the overall trend in the 11 services between 2010 and 2016. The largest share appears to be in real estate, wholesale/retail trade and financial services. Overall, there has clearly been an increasing trend in export services between 2010 and 2016.

Table 7: Services from national accounts (% of GDP), 2016

Services	GDP by activity (Kenyan shilling (Ksh) million)	% of GDP at market prices
Wholesale and retail trade, repairs	323,566	7.53
Transport and storage	297,820	6.93
Accommodation and food service activities	48,803	1.14
Information and communication technology	164,487	3.83
Financial and insurance activities	268,651	6.25
Real estate	362,724	8.44
Professional, scientific and technical activities	44,188	1.03
Administrative and support service activities	52,060	1.21
Public administration and defence	166,069	3.86
Education	298,331	6.94
Human health and social work activities	77,160	1.79
Arts, entertainment and recreation	5,482	0.13
Other service activities	29,213	0.68
GDP at market prices	4,299,088	100.00

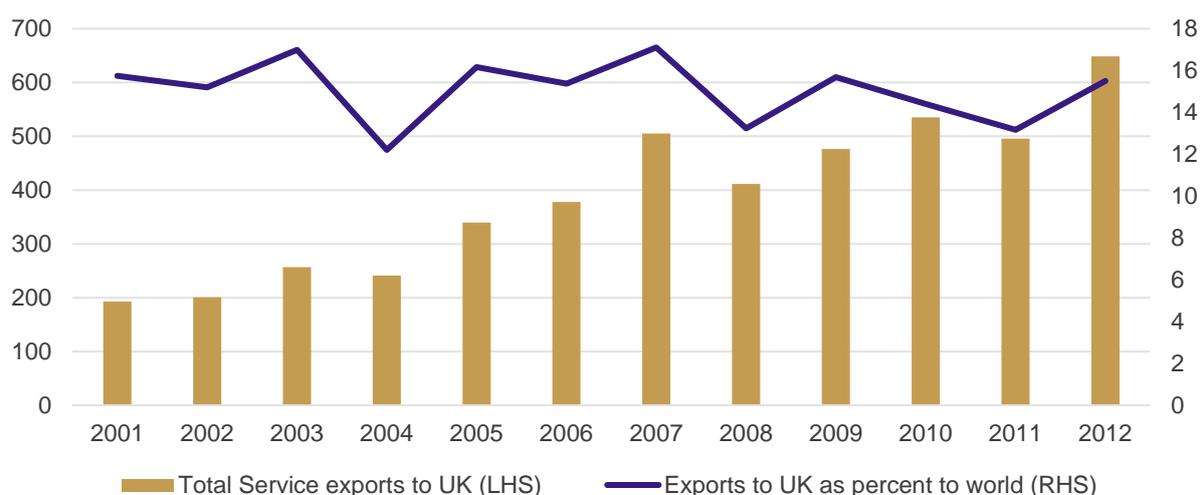
Source: Calculated from Statistical Abstract, 2017 (GDP by activity at constant prices 2009).

Trade in services are grouped around the 12 World Trade Organisation (WTO) GATS (The General Agreement on Trade-in Services) sectors and use four different modes of supply of services: cross-border supply (Mode 1), services consumed abroad (Mode 2), services supplied via commercial presence abroad (Mode 3) and services supplied via temporary movements of labour (Mode 4). In this note, we focus on Modes 1 and 2, which consist of transportation, travel, communications services, construction, insurance services, financial services, computer and information services, royalties and license fees, other business services, personal, cultural and recreational services, and government services. The bilateral relationship between Kenya and the UK is examined further using the Organisation for Economic Co-operation and Development (OECD) statistical database. One limitation for this

database is that it only includes data up to 2012 and there are well-known data measurement problems connected to this.⁵

Service exports to the UK increased 3.6 times in value terms between 2001 and 2012. This general trend has been increasing, aside from a sharp fall in 2008, which was attributed to the financial crisis. Figure 11 shows that between 2001 and 2012, UK imports constitute about 12% to 17% of Kenya's total service exports. The data show that Kenyan service exports to the UK more than trebled, from \$192 million in 2001 to almost \$650 million by 2012. However, the share of exports to the UK has not increased dramatically, suggesting that UK is a stable partner but there is significant potential for growth.

Figure 11: Kenyan exports of services (and UK share in total Kenyan exports)



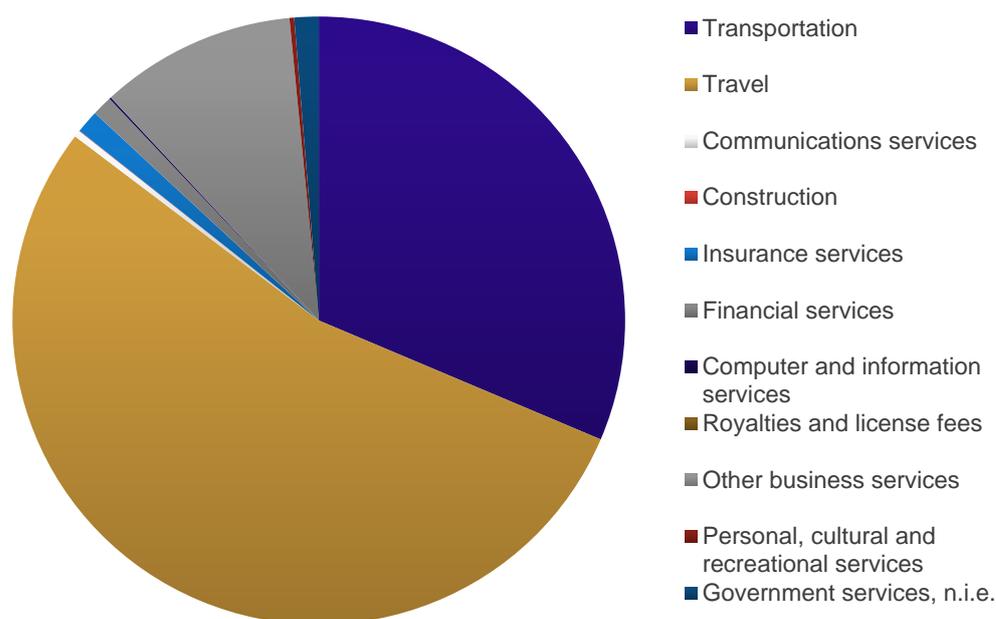
Source: Calculated from EBOPS 2002 - OECD-WTO Balanced International Trade in Services; Total Service exports to the UK values in USD million.

Note: See Appendix 6 for a total breakdown of trade in services of Kenya to the world and UK

In terms of the composition of service trade to the UK, transportation and travel services make up the largest share of exports (almost 86% of the total), followed by insurance, financial and government services as shown in Figure 12.

⁵ While it is possible to simulate for later years, the various methods (moving averages and regressions) reduce the overall internal validity of the dataset. Thus, we choose to refrain from extrapolation.

Figure 12: Composition of service trade to the UK, 2012

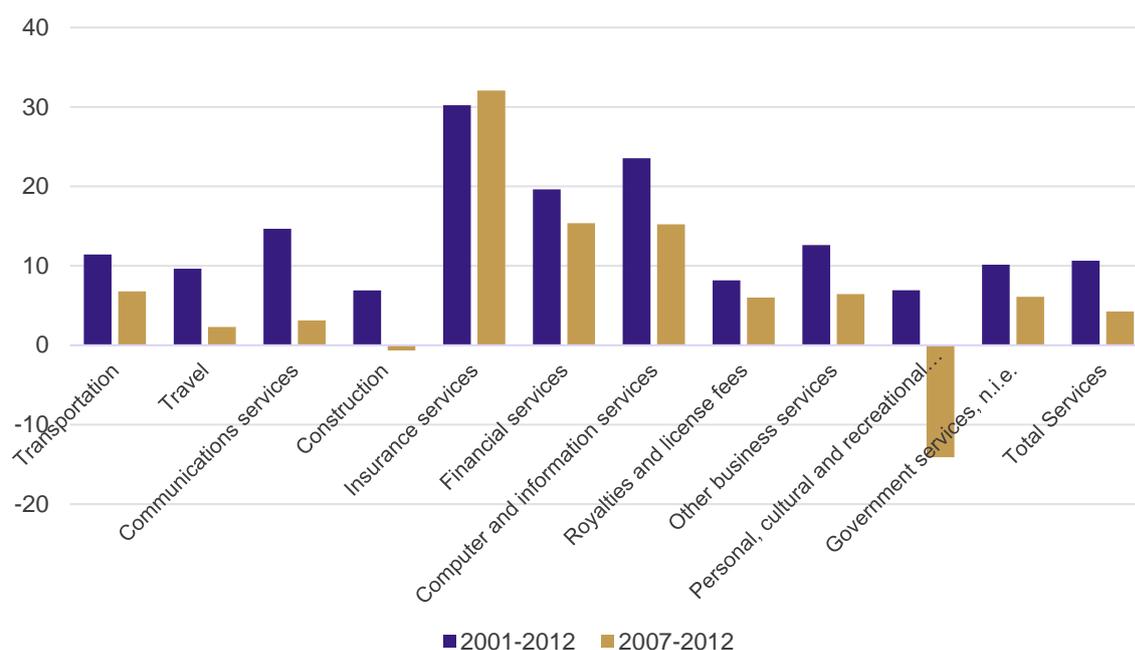


Source: Calculated from EBOPS 2002 - OECD-WTO Balanced International Trade in Services.

The trajectory of service composition seems to be changing, as depicted in figure 13, which shows the compounded annual growth rate (CAGR) between two periods, 2001-2007, 2007-2012. CAGR is an exponential growth calculation, that dampens the effect of volatility of periodic returns (over 1 year)⁶. The figure suggests that the compound annual growth rate of financial services, insurance services and ICTs (both software and hardware) is overtaking that of transportation and travel between both periods ranging from 2001 to 2012 and 2007 to 2012. This suggests a steeper increase in financial and ICT services, while the rates of increase for transport and travel have been plateauing.

⁶ This is considered a superior measurement to the arithmetic mean.

Figure 13: Compounded annual growth rate of services trade to the UK



Source: Calculated from EBOPS 2002 - OECD-WTO Balanced International Trade in Services.

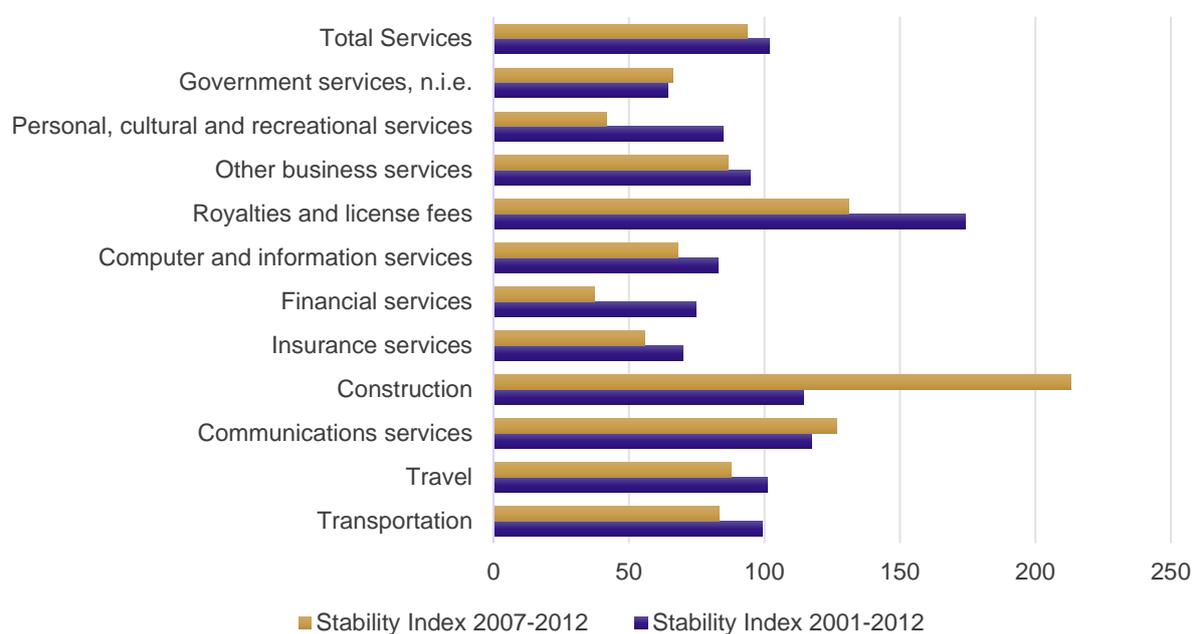
The increase in financial services has been supported by strong private institutions and innovation in the industry, including widespread adoption of mobile banking (te Velde et al., 2015). Such progress could enable Kenya to become a financial services hub for Africa, providing key services such as regional banking centres and processing hubs (e.g. call centres and data processing). This could create a spill-over in benefits by stimulating backward and forward linkages and accelerating growth in aggregate demand and investment (ibid).

ICT services have expanded significantly in Nairobi. This is due to various push factors from the private sector (e.g. established firms and venture capitalists) and the public sector. The rise of financial technology (FinTech) firms is of special importance, providing iconic services such as M-pesa and thereby promoting access to banking. Drawing on the large demography of educated youth, the Business Process Outsourcing (BPO) service sector is also gaining momentum, providing over 20,000 jobs (te Velde et al., 2015). Venture capital funding is enabling the growth of IT services in innovative technology, such as developing new software (e.g. cloud computing and blockchain technology to digitise value chains). Furthermore, the rate of internet penetration has escalated due to the use of mobile phones (with 3G technology) and the use of computers, even in rural areas (Markovich and Snyder, 2017). Rapid urbanisation has helped the accumulation of ICT-linked assets. At the individual level, the use of laptops and iPads has increased in the last decade (Jorgenson and Vu, 2016). Furthermore, the proliferation of communications-linked infrastructure has been visible over the last decade (e.g. fibre-optic cables and transmission towers).

Similar to the stability index calculated for goods, we also calculate a guide for services shown in Figure 13: the stability index of the export of Kenyan services to the UK versus the ROW. If the values are less than 100, Kenya's exports to the UK are more stable when compared to Kenya's exports to the ROW. These results indicate that Kenya's exports to the UK have remained relatively stable during the most recent period recorded (between 2007 and 2012), except for royalties/licence fees and construction. Financial and insurance services are particularly interesting as they fall far below the 100 mark, making them stable exports. This suggests that the UK is a stable market for Kenyan service exports and that Kenya has an opportunity to sustain, innovate and scale its service exports across all segments, meaning it

could significantly increase its share of exports sales to the UK. Of course, we should not forget the considerable data problems associated with these calculations.

Figure 13: Stability Index for Kenya vs the rest of the world



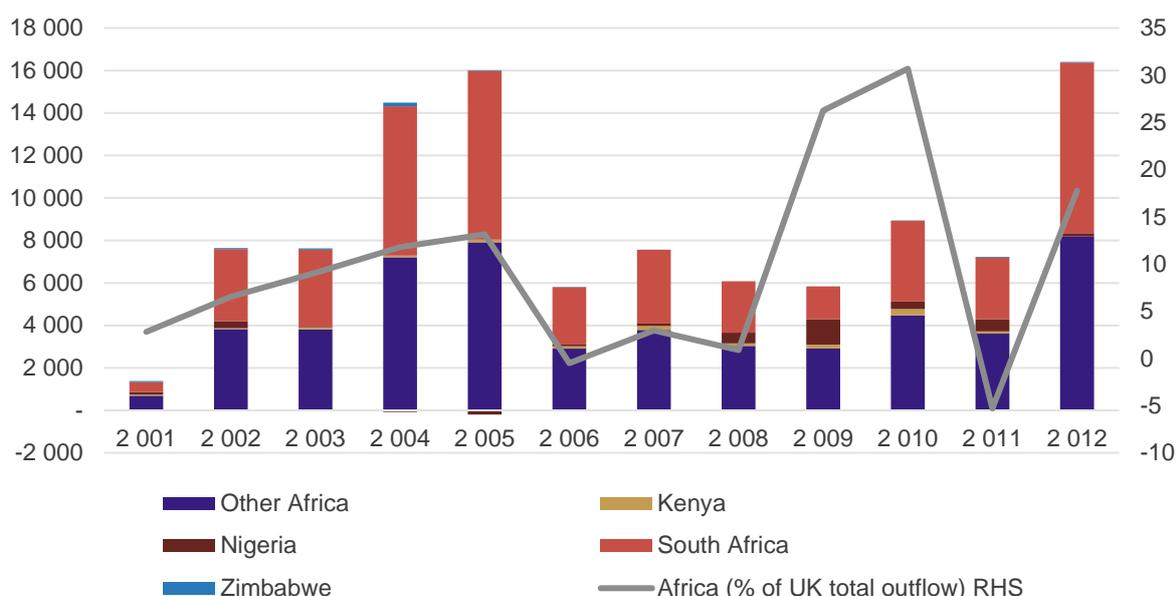
Source: calculated from the OECD statistical dataset (see appendix 7 for details of CoV calculations)

While the momentum in services continues, there are several issues related to the relatively higher cost of services because of poor auxiliary support. These impede the development and delivery of services, such as poor electrification rates and high road freight. Other issues relate to the relatively inferior quality of services, due to low skill and productivity, compared to Asian countries. According to te Velde et al. (2015), many workers move into low skill service sectors such as the informal retail trade rather than the high end. However, the concentration of high skill and high productivity jobs spatially agglomerates around the Nairobi region, thereby limiting the scope of individuals in other counties to access such markets.

4. UK FOREIGN DIRECT INVESTMENT IN KENYA

Africa is an important destination for UK FDI and was responsible for 18% of UK's total FDI outflows in 2014 as shown in figure 15.⁷ In terms of UK's FDI stocks abroad (out stock), Africa received about 3.4% of world FDI (in value, \$59 billion), of which Kenya received \$841 million.⁸ Kenya has a relatively small share of UK FDI going to Africa, hovering between 1% and 2%, while the major recipients include South Africa and Nigeria, as shown in the stacked graph below.

Figure 14: UK outward FDI to Africa (\$, million)



Source: calculated from UNCTADstat.

Kenya has emerged as a significant recipient of overall FDI in East Africa, with FDI inflows significantly increasing after 2010. This rise is related to investments (including from China) in the following sectors: mining and hydrocarbon, IT and telecoms, renewables, banking, real estate, consumer goods manufacturing, infrastructure, agriculture and tourism (InvestIn Group (IIG), 2018). The government made the attraction of FDI a clear policy priority in 2004, by establishing KenInvest as a semi-autonomous agency (through the Investment Promotion Act). According to UNCTAD, inward FDI increased by 71% in 2017 to reach nearly \$ 700 million, due to investments in the ICT sector and beverages.

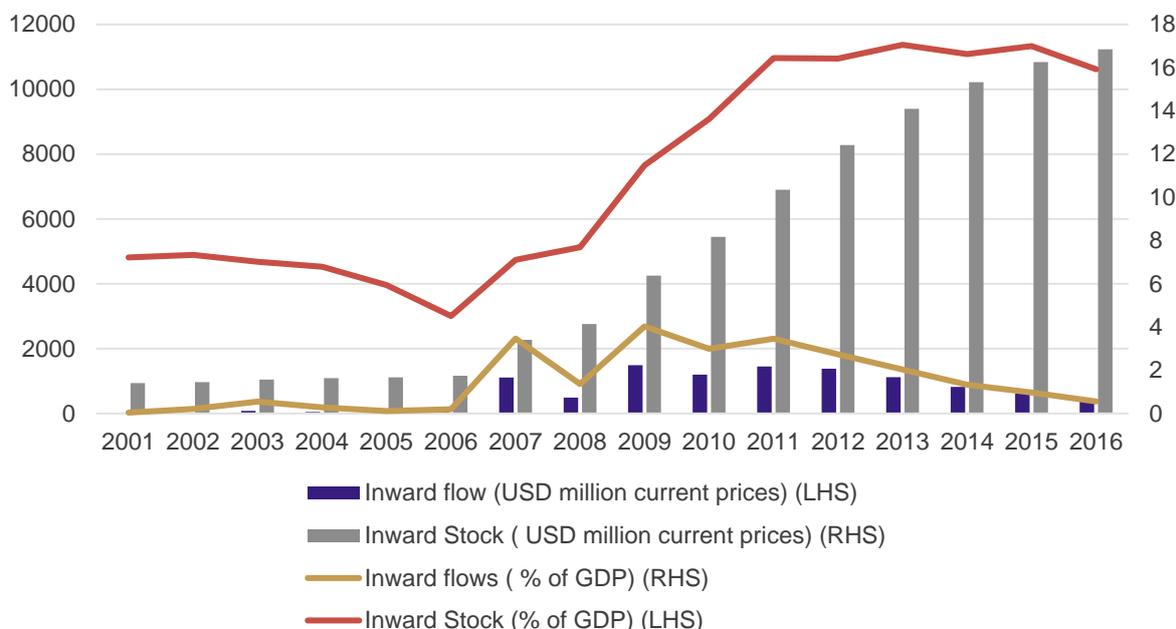
Figure 14 uses UNCTADstat to illustrate the inward FDI stock to be about 15% of GDP with inward flows approximately \$0.6 billion, according to UNCTAD data. These figures differ from the Kenyan Economic Survey (2018), which show a total net financial inflow (FDI, diaspora remittances, loan disbursements and international services) increase of 13.4% from a surplus KSh 420.0 billion in 2016 to a surplus of KSh 476.1 billion in 2017. The survey suggests that net foreign direct investment inflows increased by 79.2% from a surplus KSh 23.9 billion in 2016 to a surplus of KSh 42.9 billion in the review period.

⁷ UK's total outflow of FDI in 2014 was \$41,875 million, of which \$7450 million went to Africa UNCTADstat, 2018).

⁸ According to the Office for National Statistics, the stock of UK FDI in Africa was £29bn in 2015 (3% of world FDI) and, of this, £503 million was in Kenya (2% of UK FDI stock in Africa).

Over the last five years, the Government has passed several laws to attract foreign investment (e.g. the ruling on promoting public-private partnerships (PPP) to attract foreign investment in the infrastructure sector, allowing 100% FDI in all sectors). Most recently, they are aiming to set up several special economic zones in textiles, apparel, leather, ICTs, energy and agro-processing.

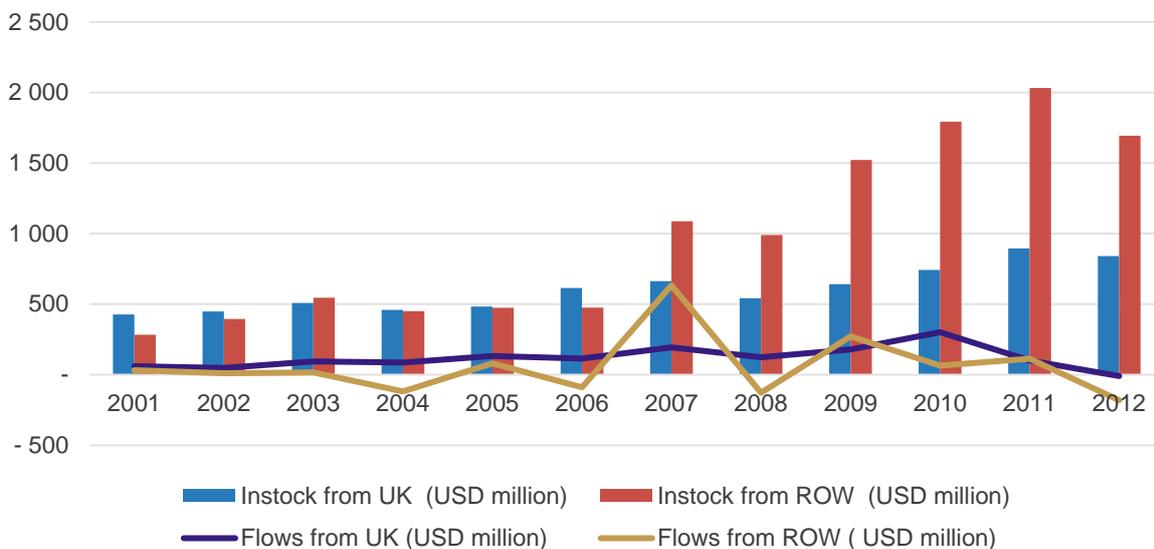
Figure 15: Trend in inward and outward FDI in Kenya



Source: calculated from UNCTADstat.

When looking at Kenyan FDI inward flows, the UK is a major source of FDI for Kenya, with the figure below suggesting that it contributes over 40% of Kenya’s total FDI inward flow, which is more than its contribution to Tanzania (average 16% of total FDI inflow) and Uganda (average 28.5% of total FDI inflow). The second highest contributor is China, followed by France (see Appendix 8 for FDI stock in Kenya by country).

Figure 16: Kenyan inward FDI flows and stock from UK



Source: calculated from UNCTADstat.

The UK has invested in Kenyan firms for a long time dating back to historical ties. Investments are spread across manufacturing, agriculture and services. The Kenyan Investment Authority (KenInvest) has processed investments from about 216 UK firms since 1989, with 52% invested in services such as marine transport, real estate development, and hotel and conference centres, followed by 36% of the firms who invest in manufacturing in areas such as electronics, paints, chemicals, cement, garments, renewables and housing. Finally, 10% of firms invest in horticulture and agro-processing. However, the capital investment (i.e. the cost of labour and capital) for services and agriculture and agro-processing significantly outstrip manufacturing. Such figures must be comprehended with caution, as KenInvest does not processes or have access to the complete range of UK investors in Kenya. For instance, UK investors can also engage other private accounting firms within Kenya when attempting to invest in the country. Thus far no legislation exists that requires international firms to register with KenInvest. In order to gain a robust understanding of the FDI landscape it is critical for institutions to share information and knowledge as well as develop comprehensive databases.

Table 8: UK investments in Kenyan firms between 1989-2016

Sector classification	Total capital cost (Ksh m)	Employment (foreign)	Employment (local)	No. of firms
Agriculture and agro-processing	5042.15	53	2626	22
Extractive	504.24	6	143	4
Manufacturing	34674.32	224	6149	77
Services	82833.98	384	10292	113
Total	123054.69	667	19210	216

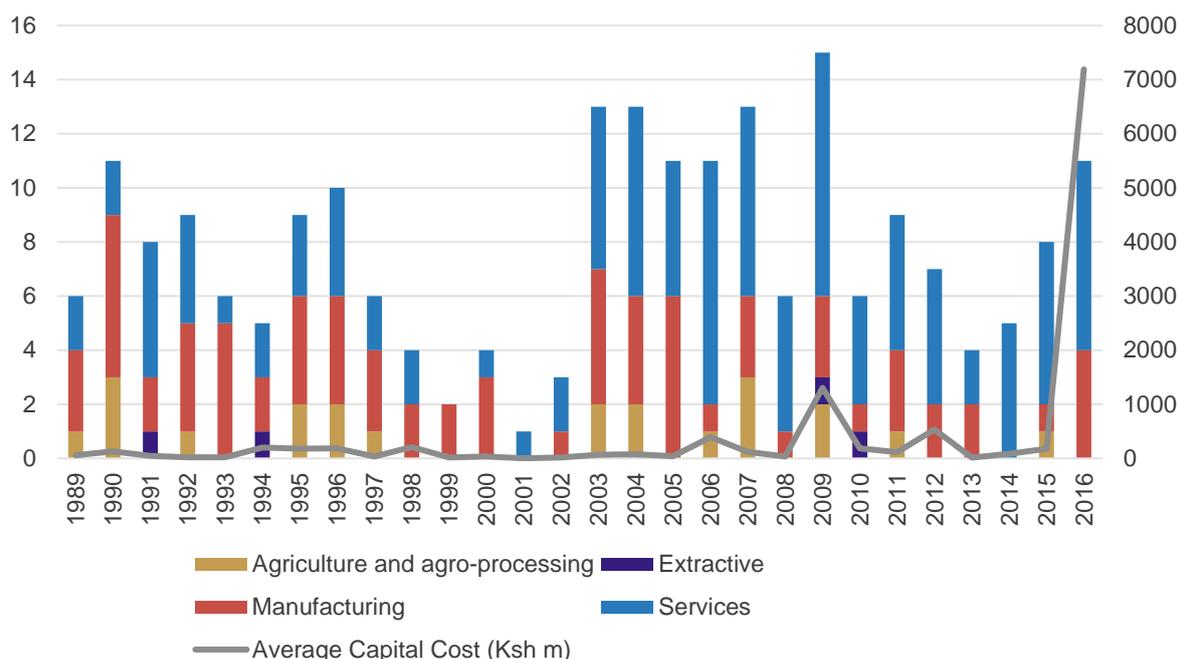
Source: derived from KenInvest correspondence.

Some of Kenya's largest inward investments occurred after 2009, focusing on the development of:

- Renewable energy such as geothermal, wind and solar, with companies such as Lakini Energy (East Africa Limited) and Gulf Dubai New Energy (Kenya Limited) investing
- Transport companies, such as Shanghai Ports Limited
- Real estate, with private firms like Reedworth Ltd.

Overall, the above has led to the employment of 19210 locals and 667 foreign nationals, creating opportunities for transfer of skills. Other major companies have included Diageo's investment in East African Breweries (EABL) – in a Kisumu brewery – and in the insurance market – Prudential (Department for International Development (DFID), 2018).

Figure 17: UK inward FDI in Kenyan firms, 1989-2016



Source: based on data from KenInvest.

There are large UK owned companies such as Hela Clothing located in the Athi River Export Processing Zone, that the KenInvest data has not accounted for. Hela has exported \$40 million (equivalent to around 10% of Kenya’s garments exports) within in 2017 and is likely to meet close to \$60 million in the coming year. In terms of employment, Hela is supporting 4,000 direct jobs and needs to double its workforce is it is to maintain current levels of growth (te Velde, 2018). This further entrenches the importance of UK as a key investor in Kenya and signals the need for Kenya to deliver strategies required to attract such large-scale investors.

5. ASSESSING CONSTRAINTS AND OPPORTUNITIES IN THE TRADE AND INVESTMENT CLIMATE

We analyse the strengths and challenges in the business-investment climate and international market access of Kenya, focusing on its relationship with the UK. We then highlight some key opportunities that will build deeper and more resilient long-term trade-investment relations with the UK, finally alluding to the need for more in-depth studies to examine specific constraints for selected export products and services. We draw mainly on Supporting Economic Transformation (SET) analysis by Balchin et al. (2016) and Were et al. (2017), along with articles from Kibe and Kimenyi (2014) and Mungai (2015).

5.1 Investment climate

The current environment for Doing Business contains the following characteristics.

An improved regulatory environment that favours new business

In 2015, the Business Registration Services (BRS) Act set up the Business Registration Service. This law supervises company registration and assigns the registration of the name and concepts of a company to counties, which cuts the costs of registering a company. The Kenyan Government also introduced the Insolvency Act in 2015 in order to improve the legal framework in case of bankruptcy of a company. This has led to an increase in Kenya's ranking in the World Bank's *Ease of Doing Business* index. In order to advance investment openness, the government plans to introduce a 'one stop centre' (a Business regulatory reform unit) to create a dedicated website that is investor friendly, with details on investment regulations, procedures and opportunities (Klynveld Peat Marwick Goerdeler (KPMG), 2017).

A simplified tax regulatory environment

This includes simplifying and reducing value added tax (VAT) and corporate tax regulations, relating to calculations of amounts payable and refunds (Deloitte, 2017). For example, to promote investment in electricity generation, foreign investors are excluded from payment of custom duties on equipment, achieve exemption from VAT on equipment and do not have to pay capital gains taxes (United States Agency for International Development (USAID), 2015). Additionally, in relation to the UK ratified double taxation agreements, long-term favourable income and corporate tax rates are ensured.

Downstream bureaucratic procedures

Trade Mark East Africa (TMEA) has worked with the Kenyan Port Authority to implement several projects that have reduced clearance processes at Mombasa port, supported port access and port gate development, and improved capacity of the port (with further improvements that could be made).

There have also been significant custom streamlining activities, which have led to reduced issues with non-recognition of certification of origin, delays in gaining import-export licences and cumbersome export of goods documentation (including administration levies).

Upstream administrative and procedural difficulties

Applications for work permits are examined on a case-by-case basis by a committee chaired by the Department of Immigration, along with representatives from the Ministries of Foreign Affairs, Labour, Tourism, Trade and Industry and the Investment Promotion Centre. The use of discretionary power is rampant, causing inefficiency and lack of transparency in the system (interviews with KenInvest).

Addressing land acquisition

Foreigners can only own land through a leasehold and are restricted to do so in Kenya (where they can rent land for 99 years), according to the constitution. Land allocation is not transparent and the Land Control Act allows for discretionary powers. Increasing transparency through digitising the land registry and the prompt issuance of titles could enable a smoother functioning of land markets (Mwangi, 2017).

Expanding public infrastructure

The country is investing almost \$55.6 billion (Ministry of Transportation and Communications (MoTC), 2018) in road, rail, air and shipping liner connections to neighbouring countries to facilitate regional and international trade. This activity includes the expansion and upgrade of current assets and the building of new roads and railways across East Africa.⁹ Examples include:

- Building the Standard Gauge Railway and connecting Mombasa to the proposed industrial park at Naivasha (where Kenya's manufacturers will be able to reduce inland transportation costs by about 80% compared to road, making them cost competitive in a wider range of additional products if the SGR is completed)
- Expansion of roads within Nairobi to ease traffic congestion
- Investment in the LAPSET Corridor Project and the Northern Corridor, which will enable building better connections with South Sudan and Ethiopia
- Upgrading of airstrips in various parts of the country (Were et al., 2017; ITC, 2016).

Poor energy infrastructure

Electrification remains low in Kenya, serving about 36% of total population. However, growth in urban access has doubled over the last two decades, with almost 70% of the urban population having access in 2014, compared to only 12.6% of the rural population (World Development Indicators, 2018). A variety of factors have made many locally produced goods less competitive than those produced elsewhere (Balchin et al., 2016; Were et al., 2017). These include high energy costs (over 10 cents/Kwh), frequent power cuts and unstable energy distribution systems (with a lack of overall energy infrastructure), and the requirement for companies to have their own private energy backup. There has also been a recent decrease in energy prices including for corporates.

Expanding the ICT infrastructure base

This has entailed developing hard infrastructure, such as three undersea fibre-optic cables (Seacom, TEAM System and Eastern Africa Submarine Cable System (EASSy), ensuring broadband access to the main urban centres through fixed-line access and, in certain locations, microwaves (UNCTAD, 2015; Were et al., 2017). Secondly, it has involved the development of ICT services such as e-government portals. These services have reduced costs and increased accessibility for international and local firms (KPMG, 2017).

Access to finance and credit

Nairobi is emerging as a financial hub, with a high number of bank account holders, increasingly developed financial markets (equity, fixed income and credit) and a range of local and international banks.¹⁰ Formal financial products and service access is growing within both the mobile banking sector and non-bank financial institutions (e.g. micro-finance), serving 76% of the adult population and with an expanding presence in rural areas (Njoroge, 2017).

⁹ Infrastructure will only be leveraged for maximum development impact if targeted export capacity is increased. Otherwise, infrastructure development may only facilitate imports, and not exports.

¹⁰ Thirteen of the 43 banks in Kenya are foreign, controlling 51% of total banking assets in the country. The largest are Barclays (UK, 21% of assets) and Standard Chartered (UK, 14%).

About 50% of Kenya's manufacturing are informal enterprises. These are dependent on internal funds for working capital and several studies highlight the inflated interest rates of money lenders extending informal lines of credit (Were et al., 2017).

To attract FDI, the government has improved conditions on foreign borrowing and lending. For instance, there are no restrictions on borrowing by foreign companies, who may open foreign currency accounts in local banks (USAID, 2015); additionally, investors are further protected, as Kenya is a signatory to the United Nations Commission on International Trade Law (UNCITRAL) and dispute resolution conventions of the International Centre for Settlement of Investment Disputes (ICSID).

There are also well-functioning forex markets, wherein the exchange rate is freely determined in the inter-bank foreign exchange market. The Central Bank of Kenya reports very little in terms of intervention on the interbank market to stabilise the Kenyan shilling.

It must be noted that the Banking Amendment Act (2016) introduced an interest rate cap, which capped lending rates at four percentage points above the central bank's benchmark rate. This interest rate cap has led to a drop in private sector credit growth, particularly towards small to medium enterprises (SMEs) and informal enterprises, and these segments are important in the manufacturing sector. This contraction in liquidity may depress operations and plans for increasing capacity or expansion.

Security

There are two key modes of infringement on security. The first occurs through violence (terrorism, crimes or tribal disputes) and the other through the spread of counterfeiting and piracy.

Terrorism and crime

This hinders export competitiveness and attracting FDI into the country. Terror attacks, inter-ethnic tensions and high crime rates have increased insurance costs for shipping and expenditure on personal security personnel. The Kenyan government is increasing police force size and constructing a National Forensic Laboratory, along with the building of a fence on the border with Somalia (KPMG, 2017).

The spread of counterfeiting and piracy

According to a report by Trade Mark Africa (African Community of Practice, 2017), the following sectors are prone to counterfeit products: pharmaceutical; medical equipment; motor vehicle assembly and components; energy, electrical and electronics; food, beverages and tobacco; and chemicals. Indeed, there have been losses of over \$122 million reported across the public and private sectors. This creates a need to upscale the capacity of anti-counterfeit checks in order to better protect intellectual property and intermediate/final goods and services.¹¹

Corruption

This has been cited as a deterrent to the advancement of export competitiveness. In 2016, Kenya was rated at 3.0 in the World Bank's CPIA transparency, accountability and corruption index in the public-sector, which is above the 2.7 average for SSA, but below the optimum value of 6. In 2003, the Anti-Corruption and Economic Crimes Act, No. 3 (2003) was enacted by the newly formed Kenya Anti-Corruption Commission (KACC). The development of the Kenya Integrity Plan (KIP) 2015-2019 is a key milestone in the fight against corruption and

¹¹ This is despite Kenya being a signatory to the Convention establishing the World Intellectual Property Organization (WIPO), the Patent Cooperation Treaty, the Paris Convention for the protection of industrial property, the Madrid Agreement and the protocol on the international registration of marks. The Kenya Industrial Property Institute (KIPI), established in 2001 under the Industrial Property Act, is the main agency in charge of granting and enforcing property rights and trademarks.

unethical conduct in the country as it is formulated as a sector based plan to provide a framework for the design and implementation of anti-corruption initiatives by various stakeholders. This was complemented by Anti-Corruption Laws (Amendment) Bill 2016, the Whistle-blower Bill 2016 and the False Claims Bill 2016. However despite best efforts to regulate corruption, interviews with several companies suggested that this was a major obstacle in doing business.

Internal firm factors: training and technology

In addition to the factors discussed above, there are internal firm dynamics that dampen the competitiveness of Kenyan exports. The management of manufacturing firms is not only responsible for firm activity but must often also be involved in managing or owning supplier firms to ensure inputs of the right quality and price. This may interfere with the quality of firm management (Were, 2016). In 2017, President Uhuru Kenyatta announced that the focus of his next administration would be the 'Big Four', namely Food Security, Universal Healthcare, Affordable Housing and Industrialisation. Under the industrialisation pillar, there is an emphasis on sector specific interventions, including increasing production capacity and upskilling the workforce. For instance, the government seeks to train over 50,000 youth and women in textile/garment value chains by 2022.

Further, there has been a sub-optimal use of technology. Numerous manufacturers use out-dated technologies systems and machinery. This reduces productivity, energy and labour efficiency, and overall use, thereby increasing the cost per unit (Were, 2016). Finally, last year, McKinsey released a report on Chinese firm activity in Africa, which indicated that 31% of Chinese firms in Africa are in manufacturing and already handle about 12% of industrial production (McKinsey, 2017). Revenues in manufacturing outstrip that of any other sector listed and one third of Chinese firms reported profit margins of over 20% in 2015 (McKinsey, 2017). In manufacturing, this has been attributed to ample pricing headroom in Africa. Prevailing market prices for manufactured products are so high that Chinese firms earn comfortable profits and their profit levels are greater than those of African firms. These figures are likely to be relevant to Kenya and beg the question as to why indigenous manufacturing is so uncompetitive. Chinese firms function in the same external environment as indigenous firms and yet are more productive. There may be a need to study Chinese versus indigenous firms to determine what can be learned to increase the competitiveness of Kenyan exports, especially to the UK.

Weak integration of backward and forward linkages in value chains

Inefficiencies and gaps along the value chain often constrain firm activity and competitiveness, particularly if they rely on domestic inputs. For example, a key gap in the leather value chain lies in the supply of high quality animal hide, partly informed by the lack of specialisation in raising livestock for this purpose. Thus, there is an opportunity to develop a more efficient means through which manufacturers can achieve the required local inputs by focusing on improving key value chains. Linked to this is the need to deliberately create backward integration strategies to build domestic capacity in order to manufacture the imported inputs that are constituents in Kenyan exports (with a focus on the leather industry, textile, agro-processing, and iron and steel). There is a need to define short and long-term targets as well as phases of backward integration.

In conclusion, there are range of domestic factors that can help productivity, competitiveness and exports of Kenyan products and services. Some of these factors have been improved significantly by the Kenyan government over the last decade, but there are still significant steps that need to be taken before investment flows increase.

5.2 International market access

Trade access and preferences

There are significant benefits for Kenya in trading with the UK. Under the Cotonou agreement, exports from Kenya entered the European Union duty-free scheme applying to all industrial products and most agro-based items. However, this has been replaced by interim Economic Partnership Agreements (EPA), which still require finalisation; in addition, the EPA will need to be rolled over to the UK to continue market access. The temporary removal of floriculture (EU trade helpdesk, n.d.) from the Generalised Scheme of Preferences (GSP) in 2017 caused a fall in profits for Kenyan firms, leading to trickle-down effects on farm workers (Bresnahan et al., 2016), but this has now been restored. Kenya also has preferential access to the United States (US) under the African Growth and Opportunity Act (AGOA) (e.g. in garments), which is likely to run until at least 2026. Since Kenya is a member of regional groups, investing in the country enables market access within the EAC and the Common Market for Eastern and Southern Africa (COMESA). Kenya has softened its stance on banning Mitumba (second-hand clothing) imports which have helped to maintain AGOA access.

Investing in downstream infrastructure for non-tariff barriers

To overcome public regulations such as SPS (sanitary and phytosanitary) measures, the Kenyan government has invested in developing state-of-the-art facilities and boards to scientifically check the quality of exported produce, such as Kenya Plant Health Inspectorate Services. Such organisations have enabled Kenyan firms to comply with EU Maximum residue levels and reduce overall rejection levels of products (Krishnan, 2017). One key entry barrier into international markets is the issue of voluntary and private standards. Voluntary standards include those related to quality, such as ISO 14001, food safety (Global GAP), environmental (Rainforest Alliance, Organic) and social (Fairtrade), while private standards include Sainsburys' Taste the Difference, Tesco Nature and Marks and Spencer's (M&S) Farm to Fork. Without significant investment from the public and private sectors, farmers within the agricultural sectors are unable to attain certification of these standards, which leads them to move back into poverty (Pickles et al., 2016).

Investing in logistics and storage activities of the value chain

Government departments such as the agriculture, food, forestry and fisheries authority, county governments and the Tea Board have begun developing a network of warehouses and cold storage facilities to link manufacturers and farmers to domestic input markets (Horticultural Crops Directorate HCD, 2016). This has facilitated growth of horticulture.

Another logistics investment in Kenya has been the *innovation push* in software that has been especially linked to a blockchain that increases efficiency and reduces the cost of intermediaries within the logistics aspect of the value chain. Within the sectors of apparel and textiles, leather, footwear and agriculture, it is easier to attain and store key traceability records, certificates of origin and the prevalence of smart contracts that link buyers and suppliers directly. This has made Kenya increasingly competitive (CCN, 2018).

According to the World Economic Forum, Kenya is the most competitive economy in the region. It ranks higher than Ethiopia, Uganda and Tanzania in terms of business sophistication and innovation, especially with the roll-out of the Science and Technology Act (2013). Thus, building human capital should be of key importance to Kenya, going forward. Even though the country has a high literacy rate and a young demographic within the skilled and semi-skilled labour force, it needs to invest in the specific codification of skills that are pertinent to spurring innovation. It also needs to enable such knowledge to integrate with indigenous knowledge systems in order to build a skilled workforce (Krishnan and Foster, 2017).

Impact of Brexit on Kenya

There are concerns regarding how Brexit will affect exports to the UK. This is firstly because the trade deals Kenya had with EU will have to be renegotiated with the UK as a standalone trade deal. Although it is unlikely that there will be significant departures in terms of trade deals with Kenya (it has been indicated that a roll-over is proposed), the process of re-negotiation will take some time, during which Kenyan exports to the UK may be negatively affected due to the uncertainty. Secondly, Brexit may lead to the tightening of access to EU markets for UK goods. For example, it is possible that Kenyan exports will suffer because the UK has been a major re-exporter of Kenyan tea into EU markets. UK appetite for Kenyan tea has been facilitated by this re-export function. With Brexit, the UK could lose easy access to EU markets, which may lead to a cut in the volume of goods the country imports from Kenya. Brexit could also provide a better trade deal for Kenya.

5.3 Opportunities for Kenya to overcome constraints

There is a range of opportunities to improve the environment for attracting investment and raising exports in Kenya.

Integrating backward linkages (upstream) along the value chain

There is frequent low value addition, due to a high dependence on inputs such as seeds and pesticides. This means there is high level of imported content in backward linkages, reducing the net value generated for the export of products, especially agricultural ones. For example, limited investment in textiles upstream has led to capacity imbalances and relatively weak productivity and quality in the spinning, weaving and fabric finishing segments. A lack of local capacity has meant 93% of the garment segment's textile inputs are imported (International Trade Centre (ITC), 2016). With the 10-year extension of AGOA, Kenya's garment exports are likely to continue flowing to the US, with little market diversification. In our analysis in Section 3, we have identified garments as a key *Sunrise* sector for the UK. By investing upstream, it is possible to improve quality of a product and increase competitiveness. For instance, to reduce dependence on cotton imports, some key steps have been taken to build backward linkages. These include engaging with multi stakeholder initiatives, such as the Better Cotton Initiative (BCI), to improve the quality and quantity of cotton produced and acquire significant tracts of land ripe of growing cotton. This involves, teaming up with research institutes and MNCs (e.g. Monsanto) to gain high yielding seeds.

Investing downstream in the value chain

Capturing increased value addition necessitates the development of 'brand value', such as investments in building reputational capital. There has been evidence of such instances in the cases of Kenyan tea and coffee, which command premia in international markets (Maina et al., 2018) because of an established history of good quality production and effective marketing. There is an opportunity to engage in more detailed analysis of how to develop the Kenyan 'brand'.

Investing in renewable energy

In 2015, the Kenyan government invested \$1.2bn in building solar power plants across the country (IIG, 2018). It is also incentivising investments in hydro, geo thermal and wind. In line with this, 86.4% of energy consumed on the grid is renewable, consisting of the following forms: geothermal (47%), hydropower (39%), thermal (13%) and wind (0.4%) (Were et al., 2017). A memorandum of understanding on renewable energy, signed in May 2016, has deepened cooperation and promoted opportunities for private sector investment by British companies in Kenya's renewable energy sector, which is worth half a billion pounds (Kenya High Commission, 2016). Kenya has a policy and legislative environment that enables the green economy through the Environmental Management and Co-ordination Act, which promotes principles of resource efficiency in industry in Kenya.

According to USAID (2015), the enabling environment for investing in electricity has been

significantly improved. For instance, guarantees are provided for feed-in tariffs to eliminate pricing risk and KenPower offers priority purchase and guaranteed access to the national grid. Kenya is also developing its electricity markets by introducing auction systems. To increase attractiveness within the sector, it is beneficial to lower the cost of energy by removing all levies on power costs and applying appropriate tariffs for industrial usage. It is also desirable to approve and implement an energy policy (Were et al., 2017)

Developing special economic zones and industrial parks

The main foreign sources of export processing zone (EPZ) investment come from China, the Taiwan Province of China and India. The African Growth and Opportunity Act (AGOA) has brought in a large number of investors in the garment sector and EPZs in Kenya enjoy 10-year corporate tax holidays and stamp duty exemptions. According to the SEZ Act (2015), incentives will be provided to operate in Naivasha, such as power subsidies and an exemption of taxes and duties payable under the Customs and Excise Act, Income Tax Act, East African Community Customs Management Act and the Value Added Tax Act (MoTC, 2016). There have been several new SEZs and EPZs advertised as potential areas of investment for UK FDI, including:

- The Mombasa Special Economic Zone at Dongo Kundu
- Leather City in Machakos County, Kinanie
- Textile industrial parks
- Food processing hubs, such as the Rice Irrigation Scheme, Galana-Kulalu
- The development of Marina at Shimon
- The Baringo-Silali-Paka Geothermal project
- The Lamu Port and Lamu-Southern Sudan-Ethiopia Transport Corridor
- Konza Techno City (Kiptoo, 2017).

Expanding access to long-term finance for all firms so it improves financial health and increases attractiveness of firms for FDI

Establishing and operationalising one single Treasury account and implementing the law on single accounts with no exceptions, honouring agreed payment terms and acting with urgency to ensure prompt payments. Were et al. (2017) lay down specific tasks required to improve financial health which include, setting up supplier portals so that suppliers can electronically track status of orders; digitising payments and refunds by government; managing and controlling the interest rate spread in a way that enhances domestic bank finance to manufacturing ;tapping into new sources of equity finance by offering public guarantees (e.g. through a Kenyan Export-Import bank).

Building social capital

Building partnerships will help the Kenyan government embed the private sector within the country. Government relationships with investors have tended to develop very little beyond the provision of EPZs and the issuance of permits and certificates. The public private partnership act (2013) was promulgated to support investment of the private sector. The Kenyan Government, KenInvest and Export Processing Zone Authority (EPZA) should commit themselves to implementing a coordinated programme of investor aftercare. This should provide better quality investor services and business environmental advocacy, to maximise benefits from existing investors (ITC, 2018). This will help build trust and reciprocity for effective coordination and partnerships by combating corruption and counterfeiting.

Sustaining and maintaining competitive edges in services

Kenya is one of the biggest markets in Africa for application downloads and has the highest mobile penetration rate in East Africa, at 83% (Standard Media, 2018). Along with this, diversification of its tourism products has included the development of three resort cities, an increase in premium safari parks, the creation of niche products (cultural, eco-sports and

water-based tourism), revamping business tourism and investing in new conference facilities.

There is a selection of skill-intensive but low-capital foreign investments in the services sector that require expatriate workers. Actively favouring these could boost technology transfer within the country and improve productivity levels. Furthermore, investing in skill development should concentrate on science, technology, engineering and mathematics at the secondary and tertiary levels of education.

Leveraging President Kenyatta's 'Big Four' agenda

The President has stated a focus on four areas for the government to focus on, including industrialisation. This provides an opportunity to link an export strategy to each sub-sector in the industrialisation pillar. These areas are:

- **Leather.** There is a target to produce 20 million shoes by 2022, while increasing export revenue in the industry to KES 50 billion in the next five years. The Kenyan government seeks to ensure that all hides and skins are fully processed locally, with personnel trained and 5000 cottage industries set up. There is also an aim for Machakos Leather Park to be completed, with three more leather parks identified. In this financial year alone, the government seeks to export KES 7 billion worth of leather products (Lang'at, 2018).
- **Textiles.** The government is targeting the development of cotton production and seeks to provide incentives to investors to build modern ginneries and textile manufacturing plants, and export KES 20 billion worth of textile goods (Lang'at, 2018).
- **Agro-processing.** The government plans to support the creation of 1,000 SMEs. This year, it seeks to attract two global tea processors in Mombasa and upgrade the area to a food value-add hub (Lang'at, 2018).
- **Iron and steel.** There is a government target of KES 100 billion in new investments in iron and steel (Lang'at, 2018).
- **Electronics.** The government seeks to attract business process outsourcing in telephone, laptop and television assembly plants (Lang'at, 2018).

The sub-sector focus of this big five aligns well with the strong UK demand for products (and the Sunrise products) such as processed agricultural items, electrical machines and apparatus, footwear, and apparel. Further, the focus on industrialisation provides an opportunity for the government to develop fiscal incentives linked to UK exports.

Analysing the value chain

There is further opportunity to research the value chains of each of the big five sub-sectors, to answer the following questions:

- Which value chain presents the quickest wins in terms of production of goods with growing demand in the UK?
- Which value chain, in the context of UK demand, is the best one to work on and improve as a priority?
- Which value chains have the most leakages/problems and what are the key gaps in each value chain?
- How can a UK-Kenya technical partnership be developed to address selected value chains in order to boost exports?

Leveraging Brexit

Despite the concerns raised by Brexit, Kenya is a strong diplomatic partner for the UK in Africa. Thus, the Kenyan government has an opportunity to deliberately enhance bilateral ties with the UK, after the latter country leaves the EU, via a clear trade package that includes an export strategy. Further, Brexit provides an opportunity for firms that have used the UK as an entry to the EU to devise UK-specific export targets and market penetration strategies. Thirdly,

Brexit gives Kenya the chance to renegotiate beneficial trade deals with the UK to boost processed and manufactured exports. The country can also use Brexit to affect a reorientation and refining of Kenyan exports to the UK (including through the use of more liberal rules of origin). Finally, given the independence that Brexit confers to the UK, there is an opportunity to highlight the beneficial trade deals the UK has with Kenya and encourage those manufacturers (particularly in apparel) that are currently focused on leveraging AGOA, in order to more deliberately diversify in the UK as a key high-income market.

In summary, this paper highlights several opportunities that will enable Kenya to improve its competitiveness in terms of increasing trade and attracting investments.

Figure 18: Summing up opportunities for improving Kenya’s export competitiveness and investment promotion.



Source: Authors.

In our analysis in Section 3, we find that leather products (especially footwear, handbags and belts) constitute a promising Sunrise sector with immense potential to expand trade and investment ties with the UK. The UK has a very large market for leather-finished products with imports in 2016 standing at about \$3500 million. However, the various Doing Business impediments we have discussed have prevented the growth of the sector.

The 2012 World Bank Enterprise Survey (through TNS Opinion¹²) interviewed eight Kenyan leather companies, with four categorised as large (over 100 employees) and the remaining four categorised as small and medium size firms. These firms were primarily located in Mombasa (3), Nairobi (3) and Nakuru (2). In terms of sales, the average sale came to about \$2 million, with approximately 62% of the sales remuneration from national sales, whilst 7% were sold directly to export markets (vertically integrated) specifically in China and India. The

¹² TNS Opinion was hired to implement the Africa 2013 enterprise surveys roll out by the World Bank. In Kenya, the local subcontractor was TNS RMS East Africa Limited.

remaining items were exported through ‘arm’s-length’ transactions. The figure below displays the overall findings in terms of *Ease of Doing Business*.

Figure 19: Web of Doing Business issues

Source: Authors.

In this paper, a ‘minor obstacle’ has been defined as those that have can be surmounted easily in-house within the firm or through the firm’s networks, while a major obstacle consists of major-severe problems that would need external support from the government, international buyers or other policy actors. For example, the results suggest that over 45% of firms interviewed found it difficult to access a skilled and educated workforce at the time of interview. Almost all firms reported issues with power outages, high costs of power and a few reported issues with water supply. Meanwhile, crime, theft and corruption were also noted as important factors inhibiting firms’ growth and investment, with almost 100% of the firms surveyed finding either minor or major obstacles related to these factors. The biggest issue was ‘kickbacks’ or the informal payment required for construction permits, operating licenses and import licences, along with thefts and spoilage occurring midstream in the value chain because of poor logistics. Appendix 9 unpacks the leather value chain in detail highlighting multiple minor and major obstacles faced by exporters.

Leather clusters seem to have had little benefit to the growth of the Kenyan export market but, under the Big Four agenda, pushing for the developments of SEZs in Machakos could be the answer to Kenya’s problem. By ensuring that the SEZ authority is able to address the gamut of the ‘Web of Doing Business issues’, it will be able to build a robust institutional environment that facilitates exports. With this, Kenya can be made as competitive as those countries who have offered several financial incentives to attract investment (e.g. Ethiopia).

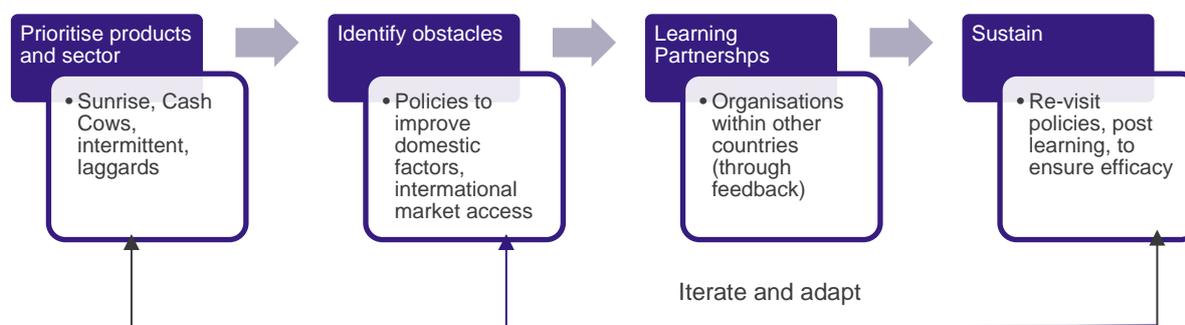
In the World Bank's 2017 Doing Business report, Kenya was shown to have improved its ranking (out of 189 countries) from 106 (in the previous year) to 92. In the last three years, Kenya has simplified its procedures for business creation and the transfer of ownership, also reviewing tax structures and business licenses, and improving access to credit and electricity as part of its 'Vision 2030' strategy. This should have a positive impact on the investment climate. Appendix 10 has a brief comparison of the Kenyan Doing Business climate with Tanzania and Ethiopia.

5.4 Next steps in the road to industrialisation and job creation

This report has examined key aspects of export and investment promotion by unpacking the current status of goods and services trade to the UK and creating a methodology to prioritise products up to an 8-digit level. It has also provided an overview of any domestic or international opportunities and constraints to trade facilitation and investment promotion.

Based on these aspects, we suggest subsequent steps that the Kenyan national and county government and business associations could take to begin promoting new priority sectors that will build trade and investment linkages with the UK, along with sustaining their current areas of competitiveness. We have developed a 4-step 'PILS' roadmap. This firstly entails a '**P**rioritisation' of products that are competitive for UK markets. The second step involves '**I**dentifying' the constraints and opportunities to improve export strategies and investment promotion, while the third comprises '**L**earning' the best practices from other countries and inputting feedback mechanisms to check policy function. The fourth step necessitates '**S**ustaining' competitive advantage. These four steps are sequential and iterative, as illustrated in the figure below:

Figure 20: Roadmap to developing an export strategy



To unpack the first step of 'prioritisation', we recommend using the 2x2 product matrix of Sunrise, Cash Cows, Intermittent and Laggards to measure export competitiveness of Kenyan products to the UK. This is beneficial as it accounts for export specialisation (the revealed comparative advantage), stability of exports and product type, disaggregated at the 8-digit level. Thus, prioritising Sunrise products (e.g. leather items, garments, imitation jewellery and light electrical machinery) will be key to developing diversified new links with the UK. This prioritisation will also maintain the cash cow products of fresh fruit, vegetable and flowers. Kenya should dis-invest in laggard products, such as parts for printers and accessories for machine tools, where UK demand is falling. Thus, by prioritising the right sectors, the government can start aligning the right policies to support export. This matrix not only helps prioritise products but also the key sectors. Step 1 can be further refined by using export

transaction level data or monthly export data rather than yearly data to obtain a more gradual and nuanced estimate.

Step 2 involves 'identifying' the major and minor obstacles in domestic factors that impact investment promotion and international market access, and finding out where improvements need to be targeted in order to convert the obstacles or constraints into opportunities. In our analysis, we find there are areas for significant improvement in terms of the promotion of new sectors such as textile/ garments, leather and imitation jewellery. The most significant among these are:

- integrating value chains to develop deeper and more efficient backward linkages (for input supply in production of raw materials)
- investing in energy (thereby reducing prices to competitive levels)
- expanding long term finance across all firms by providing significant low interest loans and rebates
- reducing public sector corruption
- easing custom regulations delays.

A key way forward that could to a large extent overcome many of these hurdles is pushing the development of SEZs and industrial parks, to foster growth of innovation capability and downstream linkages, provide opportunities for job creation and encourage faster industrialisation.

While we lay down the 'Web of Doing Business' to provide the key areas where current policy deficits exist, there is a need for the government to further research the specific incremental policies needed to fix each priority product or sector. This may involve easing certain criteria within existing policies and modifying or changing policies. In more disruptive cases, it could involve creating new targeted policies.

The next step involves developing deep 'learning' partnerships with different country governments, business associations, the private sector and other institutions to learn the best practices for developing more informed export strategies, investment promotion policies and SEZ development. Furthermore, clear channels for 'feedback' need to be in place. These add legitimacy and robustness to the targeted policies for priority products. Thus Step 3 needs to use feedback mechanisms to re-inform the veracity of Step 1 and 2. The last step involves 'sustainability', which we broadly define to be the ability to continue along a specific export trajectory. Thus, Step 4 for the government and various Kenyan authorities entails learning from step 3 in order to maintain the efficacy of step 2 and sustain their advantage. This fourth step necessitates the provision of 'aftercare' services.

While this paper is focused on Steps 1 and 2, further research looking at Steps 3 and 4 in greater detail will be essential. This will help to develop a comprehensive plan for export promotion. To conclude, effectively prioritising Sunrise sectors, developing targeted policies that address bottlenecks in domestic Doing Business and international market access, supplemented by developing learning partnerships, can allow for higher volume and better-quality exports and economic transformation.

REFERENCES

- Balchin, N., Gelb, S., Kennan, J., Martin, H., te Velde, D.W. and Williams, C. (2016) *Developing export-based manufacturing in sub-Saharan Africa*. Supporting Economic Transformation paper. London: Overseas Development Institute (ODI) (<https://www.odi.org/publications/10395-developing-export-based-manufacturing-sub-saharan-africa>).
- Balassa, B. (1979) 'A "stages approach" to comparative advantage', *Economic growth and resources* 4: 121–156.
- Balassa, B. (1965) 'Trade liberalisation and 'revealed' comparative advantage', *The Manchester School* 33(2): 99–123.
- Bresnahan, L., Coxhead, I., Foltz, J. and Mogues, T. (2016) 'Does Freer Trade Really Lead to Productivity Growth? Evidence from Africa', *World Development* 86 (C): 18–29.
- Central Bank of Kenya (CBOK) (2018) 'Principal Exports: Volume, Value and Unit Prices' Nairobi: CBOK. (<https://www.centralbank.go.ke/principal-exports-volume-value-unit-prices/>).
- CCN (2018) 'Blockchain Will Revolutionize Agriculture and Food Supply Chain'. Asker: CNN (<https://www.ccn.com/blockchain-will-revolutionize-agriculture-and-food-supply-chain/>).
- Curtis, M. (2018) 'Developing the Leather Sector in Kenya through Export Taxes: The Benefits of Defying the EU'. Gateshead: Traidcraft (http://www2.weed-online.org/uploads/case_study_leather_sector_in_kenya.pdf).
- Deloitte (2017) *The Value Added Tax Regulation Update*. Nairobi: Deloitte (<https://www2.deloitte.com/content/dam/Deloitte/ke/Documents/tax/ke-VAT-added-regulation.pdf>).
- Department for International Development (DFID) (2018) Penny Mordaunt speech at the Kenyan Chamber of Commerce. London: DFID (<https://www.gov.uk/government/speeches/penny-mordaunt-speech-at-the-kenyan-chamber-of-commerce>).
- EU Trade Helpdesk (2016) 'GSP in 2017: Update of tariff preferences for certain product groups'. Brussels: European Union (http://trade.ec.europa.eu/doclib/docs/2016/october/tradoc_155015.pdf).
- HCD (2016) *Horticulture Validated Report 2015*. Nairobi: Agriculture Authority (<http://www.agricultureauthority.go.ke/wp-content/uploads/2016/05/Horticulture-Validated-Report-2014-Final-copy.pdf>).
- InvestIn Group (IIG) (2018) 'Kenya FDI Landscape'. Dubai, Washington D.C., London and Istanbul: IIG (<http://investingroup.org/snapshot/268/kenya-fdi-landscape-kenya/>).
- International Trade Centre (ITC) (2016) *Textile and clothing value chain roadmap 2016-2020*. Geneva: ITC (http://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/SITA/Kenya-Value%20Chain%20Road%20Map%209_web.pdf).
- Intracen (ITC) (2018). 'Leatherline: Information and business portal for the leather industry'. Geneva: ITC (<http://www.intracen.org/leatherline-portal/african-platform/kenya/>).
- Jorgenson, D. W. and Vu, K. M. (2016) 'The ICT revolution, world economic growth, and policy issues', *Telecommunications Policy* 40(5): 383–397.
- Kenya High Commission (2016) 'British Investors Target Investments in Kenya's Renewable Energy Sector'. London: Kenya High Commission (<http://kenyahighcom.org.uk/british-investors-target-investments-in-kenyas-renewable-energy-sector/>).
- Kibe, J. and Kimenyi, M. S. (2014) 'Africa's powerhouse'. Brookings Op-Ed. Washington D.C.: Brookings Institution (<https://www.brookings.edu/opinions/africas-powerhouse/>).

- Kiptoo, C. (2017) 'Trade and Investment climate in Kenya'. London: Business Council for Africa ([http://www.bcafrica.co.uk/sites/default/files/Kenya-UK presentation latest for PS Trade.pdf](http://www.bcafrica.co.uk/sites/default/files/Kenya-UK%20presentation%20latest%20for%20PS%20Trade.pdf)).
- Kiriti-Ng'anga'a, T. (2014) 'Barriers to Trade: The Case of Kenya' in 'Connecting to Global Markets: Challenges and Opportunities' in M. Jansen, M. Sadni Jallab and M. Smeets (eds.) *Case Studies Presented by WTO Chair-holders*. 57–71. Washington D.C.: Word Trade Center.
- Klynveld Peat Marwick Goerdeler (KPMG) (2017) *Budget Brief Kenya*. Nairobi: KPMG (<https://assets.kpmg.com/content/dam/kpmg/ke/pdf/tax/kenya-budget-brief-2017.pdf>).
- Krishnan, A. (2017) 'The Origin and Expansion of Regional Value Chains: The Case of Kenyan Horticulture', *Global Networks* (<https://doi.org/10.1111/glob.12162>).
- Krishnan, A. and Foster, C. (2017) 'A Quantitative Approach to Innovation in Agricultural Value Chains: Evidence from Kenyan Horticulture', *The European Journal of Development Research* Special issue: 1–28.
- Lang'at, P. (2018) 'How Uhuru Hopes to Achieve Big Four Agenda', *Daily Nation* [online]. Nairobi: Daily Nation (<https://www.nation.co.ke/news/politics/How-Uhuru-hopes-to-achieve-Big-Four-agenda/1064-4275586-rdf4pq/index.html>).
- Maina, E. W., Mugambi, F. and Waiganjo, E. (2018) 'Influence of strategic Market Development Practices on Competitiveness of Kenyan Tea in the Global market', *International Journal of Scientific Research and Management* 6(1): 18–26.
- Markovich, S. and Snyder, C. (2017) 'M-Pesa and Mobile Money in Kenya: Pricing for Success', *Kellogg School of Management Cases*, 1–17. Evanston: Kellogg School of Management.
- McKinsey and Company (2017) '*Dance of the Lions and Dragons*'. New York: McKinsey and Company.
- Ministry of Industry, Trade and Cooperatives (MOTC) (2018) 'Elevated Investment of \$55.6 Billion in Infrastructure Development Anticipated for Kenya'. Nairobi: MITC (<http://www.industrialization.go.ke/index.php/media-center/blog/238-elevated-investment-of-55-6-in-infrastructure-development-anticipated-for-kenya>).
- Mungai, C. (2015) 'Kenya and its huge competitive advantage'. *Mail & Guardian* [online]. Johannesburg and Cape Town: Mail & Guardian (<https://mg.co.za/article/2015-09-11-00-kenya-and-its-huge-competitive-advantage>).
- Mwangi, P. (2017) 'Challenges of land issues to investment in Kenya', in World Bank (ed.), *2017 world bank conference on land and poverty* (pp. 1–18). World Bank: Washington D.C.
- Mwinyihija, M. and Quiesenberry, W. (2013) Review of the challenges towards value addition of the leather sector in Africa. *Global Advanced Research Journal of Management and Business Studies (IssN: 2315-5086) Vol, 2(11)*, 518–528.
- Mwinyihija, M. (2014) Emerging world leather trends and continental shifts on leather and leather goods production in *World leather congress proceedings*.
- Njoroge, P. (2017) 'The Kenya Bankers Association Sixth Annual Banking Research Conference'. Keynote Speech by Dr. Patrick Njoroge, Governor of the Central Bank of Kenya, 1–6. Nairobi: Central Bank of Kenya ([https://www.centralbank.go.ke/uploads/speeches/504827480_Governor%27s Keynote Speech – KBA 6th Annual Research Conference – Sept 2017.pdf](https://www.centralbank.go.ke/uploads/speeches/504827480_Governor%27s%20Keynote%20Speech%20-%20KBA%206th%20Annual%20Research%20Conference%20-%20Sept%202017.pdf)).
- Ong'olo, D. (2017) *Business Environment Reform Facility Kenya: Export Strategy and BE Diagnostic*. DFID: London.
- Pasquali, G. (2018) 'When Value Chains go South: Governance and Upgrading of the Kenyan Leather Sector'. PhD Thesis (submitted March 9th). Oxford: Department of International Development, University of Oxford.
- Page, J. (2016) 'Transforming Kenyan industry'. Supporting Economic Transformation paper. London: ODI (<http://set.odi.org/wp-content/uploads/2016/09/Transforming-Kenyan-Industry-John-Page.pdf>).

- Pickles, J., Barrientos, S. and Knorrington, P. (2016) 'New end markets, supermarket expansion and shifting social standards', *Environment and Planning A* 48(7): 1284–1301.
- Secretariat of the African Community of Practice on Managing (2017) *The role of trademark in addressing counterfeits crisis in Africa: Experience of Kenya*. Tunis: Africa Knowledge for Results initiative (AfriK4R) (<http://afrik4r.org/wp-content/uploads/2017/01/Trade-Marks-and-Counterfeits-Crisis-in-Africa-AfCoP.pdf>).
- te Velde, D.W., with Balchin, N., Lemma, A., Kelsall, T., Mendez-Parra, M. and Worrall, L. (ODI), and Wangwe, S., Mmari, D. and Kilama, B (REPOA) (2016) *Supporting the preparation of Tanzania's second five-year development plan (FYDP II) 2016/17 – 2020/21*. Supporting Economic Transformation (SET) programme. London: ODI.
- te Velde, D.W., Tyson, J. and Khanna, A. (2015) *Kenya as a services hub*. SET programme. London: ODI.
- United States Agency for International Development (USAID) (2015) *Investment Brief for electricity in Kenya*. Nairobi: USAID (https://www.usaid.gov/sites/default/files/documents/1860/Kenya_IG_2015_05_03.pdf).
- Were, A. (2016) *Manufacturing in Kenya: features, challenges and opportunities*. SET programme. London: ODI.
- Were, A., te Velde, D.W. and Wainaina, G. (2017) *Ten policy priorities for transforming manufacturing and creating jobs in Kenya*. SET programme. London: ODI.

APPENDICES

Appendix 1: Detailed breakdown Kenyan exports to UK (by HS Chapter)

HS 2	Product label	Export value 2014 (USD 000)	Annual change 2001-2014 (%)
07	Edible vegetables and certain roots and tubers	127,616	3.7%
09	Coffee, tea, maté and spices	120,682	0.8%
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	107,333	10.1%
08	Edible fruit and nuts; peel of citrus fruit or melons	12,017	24.4%
95	Toys, games and sports requisites; parts and accessories thereof	6,870	25.0%
20	Preparations of vegetables, fruit, nuts or other parts of plants	4,808	-5.5%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	4,506	29.7%
24	Tobacco and manufactured tobacco substitutes	4,142	5.0%
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	3,890	18.0%
74	Copper and articles thereof	3,712	31.2%
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...	2,460	50.6%
21	Miscellaneous edible preparations	1,319	5.1%
73	Articles of iron or steel	1,002	20.4%
76	Aluminium and articles thereof	891	19.8%
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	845	14.8%
62	Articles of apparel and clothing accessories, not knitted or crocheted	656	28.2%
01	Live animals	561	102.0%
22	Beverages, spirits and vinegar	440	8.6%
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	439	-3.4%
63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags	427	7.3%
39	Plastics and articles thereof	411	8.9%

18	Cocoa and cocoa preparations	410	8.5%
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	384	-3.3%
83	Miscellaneous articles of base metal	309	68.4%
61	Articles of apparel and clothing accessories, knitted or crocheted	302	6.1%
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	299	4.0%
34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial ...	150	15.9%
64	Footwear, gaiters and the like; parts of such articles	146	-1.9%
91	Clocks and watches and parts thereof	96	24.4%
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring ...	94	37.1%
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles ...	94	18.7%
97	Works of art, collectors' pieces and antiques	91	9.8%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	88	-3.9%
11	Products of the milling industry; malt; starches; inulin; wheat gluten	82	16.6%
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	82	-3.5%
93	Arms and ammunition; parts and accessories thereof	76	4.9%
03	Fish and crustaceans, molluscs and other aquatic invertebrates	75	-12.3%
96	Miscellaneous manufactured articles	62	-9.7%
38	Miscellaneous chemical products	40	18.9%
69	Ceramic products	37	13.6%
44	Wood and articles of wood; wood charcoal	36	-18.2%
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	32	-2.2%
52	Cotton	24	-12.0%
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	23	-17.7%
49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, ...	20	-10.9%
84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	18	-10.0%
13	Lac; gums, resins and other vegetable saps and extracts	17	-16.0%
70	Glass and glassware	12	8.8%
94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; ...	12	-12.6%
02	Meat and edible meat offal	10	6.6%

46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	9	-12.1%
55	Man-made staple fibres	8	12.2%
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	6	14.8%
10	Cereals	5	1.7%
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	4	-6.0%
30	Pharmaceutical products	3	3.2%
67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles ...	3	-5.6%
05	Products of animal origin, not elsewhere specified or included	1	-8.1%
17	Sugars and sugar confectionery	1	-5.2%
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	1	0.0%
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	1	-12.9%

Appendix 2: Coefficient of variation for Stability Index (goods)

Product code	Product	CV 2001-2016 UK	CV 2001-2016 ROW	ROW (UK=100) 2001-2016	CV 2007-2016 UK	CV 2007-2016 ROW	ROW (UK=100) 2007-2016
09024000	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	20.71	15.24	73.57	17.34	13.26	76.45561
06031100	Fresh cut roses and buds, of a kind suitable for bouquets or for ornamental purposes	80.57	81.37	101.00	7.70	12.02	156.1551
07082000	Fresh or chilled beans 'vigna spp., phaseolus spp.', shelled or unshelled	28.37	25.10	88.46	17.59	7.47	42.49643
07041000	Fresh or chilled cauliflowers and headed broccoli	155.93	21.12	13.55	111.80	15.13	13.53058
07099990	Fresh or chilled vegetables n.e.s.	153.96	154.13	100.11	106.14	106.30	100.1505
07081000	Fresh or chilled peas 'pisum sativum', shelled or unshelled	60.41	29.34	48.57	58.58	13.02	22.22652
09011100	Coffee (excl. roasted and decaffeinated)	44.21	50.87	115.07	44.99	24.58	54.64157
06031200	Fresh cut carnations and buds, of a kind suitable for bouquets or for ornamental purposes	104.73	83.82	80.04	54.54	20.20	37.03166
95049080	Tables for casino games, automatic bowling alley equipment, and other funfair, table or parlour ...	177.55	153.53	86.47	127.89	105.74	82.67481
20082090	Pineapples, prepared or preserved, not containing added spirit or added sugar	131.16	55.57	42.37	85.66	15.61	18.21886
06039000	Dried, dyed, bleached, impregnated or otherwise prepared cut flowers and buds, for bouquets ...	97.53	76.16	78.09	62.12	56.44	90.86115
07093000	Fresh or chilled aubergines 'eggplants'	55.84	29.08	52.08	10.83	10.37	95.71981
07096099	Fresh or chilled fruits of genus capsicum or pimenta (excl. for industrial manufacture of capsin ...	58.29	33.51	57.49	24.38	18.76	76.9371
08044000	Fresh or dried avocados	42.52	59.62	140.22	34.23	55.17	161.14
08102010	Fresh raspberries	236.52	42.74	18.07	179.60	14.52	8.083262
06031970	Fresh cut flowers and buds, of a kind suitable for bouquets or for ornamental purposes (excl. ...	400.00	400.00	100.00	316.23	316.23	100
07099960	Fresh or chilled sweetcorn	155.89	156.16	100.17	107.96	108.21	100.2348

08029085	Nuts, fresh or dried, whether or not shelled or peeled (excl. coconuts, brazil nuts, cashew ...	131.84	59.07	44.81	84.56	59.01	69.78565
20082079	Pineapples, prepared or preserved, containing added sugar but no added spirit, with sugar content ...	50.64	25.08	49.53	67.67	28.83	42.60338
08109020	Fresh tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola ...	101.40	95.06	93.75	50.27	41.43	82.42087
20094930	Pineapple juice, unfermented, brix value > 20 but <= 67 at 20 °c, value of > 30 â,	95.40	48.05	50.37	59.18	39.39	66.55269
15159059	Crude fixed vegetable fats and oils, in immediate packings of a content of > 1 kg, or crude, ...	93.55	79.39	84.86	48.25	74.04	153.4729
99209900	No product description available	26.76	33.98	126.95	15.87	10.10	63.60554
01064900	Live insects (excl. bees)	267.06	188.85	70.71	205.59	138.03	67.13713
15159099	Solid fixed vegetable fats and oils and their fractions, whether or not refined, but not chemically ...	171.68	29.64	17.26	123.98	13.20	10.64549

Appendix 3: Revealed comparative advantage (RCA)

Product Code	Product label	RCA 2001*	RCA 2016	Average annual change of UK imports from Kenya
01062000	Live reptiles 'e.g. snakes, turtles, alligators, caymans, iguanas, gavials and lizards'	-	19.98	9.5%
01064900	Live insects (excl. bees)	-	324.92	262.6%
01069000	Live animals (excl. mammals, reptiles, birds, insects, fish, crustaceans, molluscs and other ...	4.46	0.42	-13.0%
03011900	Live ornamental fish (excl. freshwater)	69.34	136.83	14.1%
03054980	Smoked fish, incl. fillets (excl. offal, pacific salmon, atlantic salmon, danube salmon, herring, ...	-	0.75	500.0%
03089010	Live, fresh or chilled, aquatic invertebrates (excl. crustaceans, molluscs, sea cucumbers, ...	-	0.45	0.0%
05010000	Human hair, unworked, whether or not washed or scoured; waste of human hair	-	4.35	-71.4%
05080000	Coral and similar materials, shells of molluscs, crustaceans or echinoderms, cuttle-bone, powder ...	-	11.55	1.4%
06021090	Unrooted cuttings and slips (excl. vines)	24.58	122.68	11.1%
06029050	Live outdoor plants, incl. their roots (excl. bulbs, tubers, tuberous roots, corms, crowns ...	0.72	0.18	-17.8%
06029070	Indoor rooted cuttings and young plants (excl. cacti)	-	0.47	-4.2%
06031100	Fresh cut roses and buds, of a kind suitable for bouquets or for ornamental purposes	439.03	417.70	-2.0%
06031200	Fresh cut carnations and buds, of a kind suitable for bouquets or for ornamental purposes	373.23	193.08	-15.9%
06031400	Fresh cut chrysanthemums and buds, of a kind suitable for bouquets or for ornamental purposes	28.40	0.03	-55.0%
06031500	Fresh cut lilies 'lilium spp.' and buds, of a kind suitable for bouquets or for ornamental ...	0.16	2.72	97.8%
06031910	Fresh cut gladioli and buds, of a kind suitable for bouquets or for ornamental purposes	-	1.03	18.9%
06031970	Fresh cut flowers and buds, of a kind suitable for bouquets or for ornamental purposes (excl. ...	n/a	9.48	n/a
06039000	Dried, dyed, bleached, impregnated or otherwise prepared cut flowers and buds, for bouquets ...	275.20	115.64	-1.6%

06049091	Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, suitable ...	-	2.80	-36.8%
07031011	Onion sets, fresh or chilled	-	6.50	49.4%
07031019	Onions, fresh or chilled (excl. sets)	20.74	6.26	-3.7%
07031090	Shallots, fresh or chilled	-	0.60	8.0%
07039000	Leeks and other alliaceous vegetables, fresh or chilled (excl. onions, shallots and garlic)	10.85	14.46	2.0%
07041000	Fresh or chilled cauliflowers and headed broccoli	0.05	142.17	73.0%
07061000	Fresh or chilled carrots and turnips	-	3.62	21.3%
07081000	Fresh or chilled peas 'pisum sativum', shelled or unshelled	396.13	235.81	1.4%
07082000	Fresh or chilled beans 'vigna spp., phaseolus spp.', shelled or unshelled	722.46	773.14	3.0%
07092000	Fresh or chilled asparagus	0.69	0.70	8.5%
07093000	Fresh or chilled aubergines 'eggplants'	-	159.38	57.4%
07096099	Fresh or chilled fruits of genus capsicum or pimenta (excl. for industrial manufacture of capsaicin ...)	87.99	84.01	5.3%
07099310	Fresh or chilled courgettes	1.82	0.59	-28.1%
07099390	Fresh or chilled pumpkins, squash and gourds 'cucurbita spp.' (excl. courgettes)	1.25	2.61	20.8%
07099960	Fresh or chilled sweetcorn	62.16	33.44	-8.5%
07099990	Fresh or chilled vegetables n.e.s.	326.27	273.92	-5.4%
07102200	Shelled or unshelled beans 'vigna spp., phaseolus spp.', uncooked or cooked by steaming or ...	14.31	24.08	4.7%
07108095	Vegetables, whether or not cooked by boiling in water or by steaming, frozen (excl. potatoes, ...)	-	0.01	-26.9%
07109000	Mixtures of vegetables, uncooked or cooked by steaming or by boiling in water, frozen	-	0.53	11.0%
07131090	Peas, 'pisum sativum', dried and shelled, whether or not skinned or split (excl. peas for sowing)	-	4.15	4.1%
07133100	Dried, shelled beans of species 'vigna mungo [l.] hepper or vigna radiata [l.] wilczek', whether ...	-	1.54	-11.2%
07133500	Dried, shelled cow peas 'vigna unguiculata', whether or not skinned or split	-	15.36	117.9%

07139000	Dried, shelled leguminous vegetables, whether or not skinned or split (excl. peas, chickpeas, ...	-	41.21	25.3%
07142090	Sweet potatoes, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets ...	-	1.84	21.9%
07149020	Arrowroot, salep and similar roots and tubers with high starch content, fresh, chilled, frozen ...	-	4.43	n/a
07149090	Roots and tubers of jerusalem artichokes and similar roots and tubers with high starch or inulin ...	0.71	1.70	13.3%
08026200	Fresh or dried macadamia nuts, shelled	-	33.77	-20.7%
08029085	Nuts, fresh or dried, whether or not shelled or peeled (excl. coconuts, brazil nuts, cashew ...	-	405.88	31.0%
08044000	Fresh or dried avocados	13.27	15.63	12.9%
08045000	Fresh or dried guavas, mangoes and mangosteens	0.26	0.03	-5.5%
08071900	Fresh melons (excl. watermelons)	-	0.99	34.6%
08072000	Fresh pawpaws 'papayas'	1.99	0.42	-6.5%
08102010	Fresh raspberries	-	30.10	81.3%
08102090	Fresh blackberries, mulberries and loganberries	-	0.12	-3.1%
08104050	Fresh fruit of species vaccinium macrocarpum and vaccinium corymbosum	-	0.20	-4.3%
08107000	Fresh persimmons	-	0.44	73.2%
08109020	Fresh tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola ...	51.03	115.08	8.4%
08111011	Strawberries, uncooked or cooked by steaming or boiling in water, sweetened, with sugar content ...	-	6.43	n/a
08119085	Guavas, mangoes, mangosteens, papaws 'papayas', tamarinds, cashew apples, lychees, jackfruit, ...	-	0.28	n/a
09011100	Coffee (excl. roasted and decaffeinated)	67.18	20.81	0.7%
09012100	Roasted coffee (excl. decaffeinated)	0.11	0.04	3.5%
09021000	Green tea in immediate packings of <= 3 kg	-	50.05	102.2%
09022000	Green tea in immediate packings of > 3 kg	80.79	5.28	-11.6%
09023000	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	73.10	0.36	-25.5%

09024000	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	547.69	969.39	2.1%
09109910	Fenugreek seed	-	5.09	20.1%
09109931	Wild thyme 'thymus serpyllum' (excl. crushed or ground)	-	3.72	-75.7%
09109933	Thyme (excl. crushed or ground and wild thyme)	1.18	26.92	54.1%
09109991	Spices, neither crushed nor ground (excl. pepper of the genus piper, fruit of the genus capsicum ...	17.59	36.10	11.3%
09109999	Spices, crushed or ground (excl. pepper of the genus piper, fruit of the genus capsicum or ...	-	1.27	-3.1%
10079000	Grain sorghum (excl. for sowing)	-	6.42	n/a
11029090	Cereal flours (excl. wheat, meslin, rye, maize, rice, barley and oat)	-	1.42	9.1%
12092100	Alfalfa seed for sowing	-	37.41	n/a
12093000	Seeds of herbaceous plants cultivated mainly for flowers, for sowing	12.30	43.29	8.5%
12099180	Vegetable seeds for sowing (excl. salad beet or beetroot 'beta vulgaris var. conditiva')	11.08	5.78	-15.8%
12099999	Seeds, fruit and spores, for sowing (excl. leguminous vegetables and sweetcorn, coffee, tea, ...	-	47.24	44.7%
12119086	Plants and parts of plants, incl. seeds and fruits, used primarily in perfumery, in pharmacy ...	435.41	7.26	-78.0%
12129300	Sugar cane, fresh, chilled, frozen or dried, whether or not ground	-	75.97	0.0%
12129995	Fruit stones and kernels and other vegetable products, of a kind used primarily for human consumption, ...	30.97	143.89	41.0%
13021970	Vegetable saps and extracts (excl. opium, liquorice, hops, vanilla oleoresin and genus ephedra)	1.84	0.06	-66.5%
15155019	Crude sesame oil (excl. for technical or industrial uses)	-	21.83	-16.5%
15155099	Sesame oil and its fractions, whether or not refined, but not chemically modified (excl. for ...	-	18.26	10.2%
15159011	Tung, jojoba and oiticica oils, myrtle and japan wax and their fractions, whether or not refined, ...	-	16.01	n/a
15159059	Crude fixed vegetable fats and oils, in immediate packings of a content of > 1 kg, or crude, ...	-	221.02	61.4%
15159099	Solid fixed vegetable fats and oils and their fractions, whether or not refined, but not chemically ...	-	47.23	54.5%

15219091	Beeswax and other insect waxes, crude	16.54	401.83	14.6%
15219099	Beeswax and other insect waxes, whether or not refined or coloured (excl. crude)	-	73.90	80.4%
19019091	Food preparations of flour, groats, meal, starch or malt extract, containing no milkfats, sucrose, ...	-	28.42	237.7%
19019099	Food preparations of flour, groats, meal, starch or malt extract, not containing cocoa or containing ...	17.05	8.59	-0.8%
19041010	Prepared foods obtained by swelling or roasting cereals or cereal products based on maize	-	0.61	8.0%
19041090	Prepared foods obtained by swelling or roasting cereals or cereal products (excl. based on ...	0.71	2.17	14.9%
20019097	Vegetables, fruit, nuts and other edible parts of plants, prepared or preserved by vinegar ...	0.32	0.97	13.3%
20052020	Potatoes in thin slices, cooked in fat or oil, whether or not salted or flavoured, in airtight ...	-	1.02	-0.9%
20059950	Mixtures of vegetables, prepared or preserved otherwise than by vinegar or acetic acid, not ...	5.35	1.62	-12.5%
20079190	Citrus fruit jams, jellies, marmalades, purées or pastes, obtained by cooking, whether or not ...	-	1.13	-40.0%
20082059	Pineapples, prepared or preserved, containing added sugar but no added spirit, with a Psugar ...	12.44	33.02	5.4%
20082079	Pineapples, prepared or preserved, containing added sugar but no added spirit, with sugar content ...	384.92	155.15	-8.8%
20082090	Pineapples, prepared or preserved, not containing added spirit or added sugar	-	323.42	70.9%
20088070	Strawberries, prepared or preserved, containing no spirit but with added sugar, in immediate ...	-	4.20	n/a
20089778	Mixtures of fruit or other edible parts of plants, prepared or preserved, not containing added ...	-	1.61	n/a
20089797	Mixtures of guavas, mangoes, mangosteens, papaws 'papayas', tamarinds, cashew apples, lychees, ...	-	15.21	-31.4%
20089999	Fruit and other edible part of plants, prepared or preserved, not containing added spirit or ...	-	17.87	285.6%
20094930	Pineapple juice, unfermented, brix value > 20 but <= 67 at 20 °c, value of > 30 â,	367.75	72.51	-4.4%
21012020	Extracts, essences and concentrates, of tea or maté	67.61	7.99	-10.5%
21012092	Preparations with a basis of extracts, essences and concentrates of tea or maté	650.45	135.89	-5.7%
21039090	Sauces and preparations therefor, mixed condiments and mixed seasonings (excl. soya sauce, ...	-	0.03	-11.0%
22030001	Beer made from malt, in bottles holding <= 10 l	1.61	0.89	-0.9%

25309000	Arsenic sulfides, alunite, pozzuolana, earth colours and other mineral substances, n.e.s.	-	0.16	-20.5%
27030000	Peat, incl. peat litter, whether or not agglomerated	-	0.06	n/a
27079920	Anthracene (excl. chemically defined); sulphuretted toppings from the first distillation of ...	n/a	1,595.38	n/a
30012090	Extracts of glands or other organs or of their secretions, of animals, for organo-therapeutic ...	-	0.20	-7.4%
30049000	Other	0.00	0.00	-20.6%
32030010	Dyes of vegetable origin, incl. dye extracts, whether or not chemically defined; preparations ...	23.75	12.71	2.5%
33012941	Essential oils, not deterpenated, incl. concretes and absolutes (except of citrus fruit, mint, ...	1.08	9.22	34.4%
39232990	Sacks and bags, incl. cones, of plastics (excl. those of poly'vinyl chloride' and polymers ...	-	0.01	0.0%
39239000	Articles for the conveyance or packaging of goods, of plastics (excl. boxes, cases, crates ...	0.05	0.03	-13.6%
39241000	Tableware and kitchenware, of plastics	0.37	0.33	3.7%
39261000	Office or school supplies, of plastics, n.e.s.	0.09	0.03	-8.8%
39264000	Statuettes and other ornamental articles, of plastics	0.06	0.15	0.0%
40121300	Retreaded pneumatic tyres, of rubber, of a kind used on aircraft	12.17	33.90	33.7%
42010000	Saddlery and harness for any animal, incl. traces, leads, knee pads, muzzles, saddle cloths, ...	-	0.84	24.0%
42021110	Executive-cases, briefcases, portfolios, school satchels and similar containers with outer ...	-	0.53	11.0%
42021190	Trunks, suitcases, vanity cases and similar containers, with outer surface of leather, composition ...	-	0.05	-25.6%
42021250	Trunks, suitcases, vanity cases, executive-cases, briefcases, school satchels and similar containers, ...	-	0.26	n/a
42021291	Executive-cases, briefcases, school satchels and similar containers, with outer surface of ...	-	1.71	n/a
42022100	Handbags, whether or not with shoulder straps, incl. those without handles, with outer surface ...	-	0.01	-3.9%
42022210	Handbags, whether or not with shoulder straps, incl. those without handles, with outer surface ...	-	0.21	33.7%
42022290	Handbags, whether or not with shoulder straps, incl. those without handles, with outer surface ...	-	1.11	35.0%
42029291	Travelling-bags, toilet bags, rucksacks and sports bags, with outer surface of textile materials	0.02	0.03	4.7%

42029298	Insulated food or beverage bags, shopping bags, map-cases, tool bags, jewellery boxes, cutlery ...	-	0.16	16.6%
42029900	Travelling-bags, shopping or tool bags, jewellery boxes, cutlery cases and similar, with outer ...	0.68	0.39	-2.9%
42033000	Belts and bandoliers, of leather or composition leather	-	1.14	33.5%
42034000	Clothing accessories of leather or composition leather (excl. gloves, mittens and mitts, belts, ...	-	0.22	-4.8%
42050090	Articles of leather or composition leather (excl. saddlery and harness bags; cases and similar ...	0.09	0.33	11.2%
44140090	Wooden frames for paintings, photographs, mirrors or similar objects (excl. of tropical wood ...	-	0.08	3.2%
44190090	Tableware and kitchenware, of wood (excl. okoumé, obeche, sapelli, sipo, acajou d'afrique, ...	1.46	0.77	-3.9%
44201011	Statuettes and other ornaments, of okoumé, obeche, sapelli, sipo, acajou d'afrique, makoré, ...	20.37	5.96	-13.1%
44201019	Statuettes and other ornaments, of wood (excl. okoumé, obeche, sapelli, sipo, acajou d'afrique, ...	12.37	0.53	-17.2%
44209099	Caskets and cases for jewellery or cutlery, and similar articles and articles of furniture ...	0.89	0.10	-14.0%
46021990	Basketwork, wickerwork and other articles, made directly to shape from vegetable plaiting materials ...	0.51	0.94	8.9%
46029000	Basketwork, wickerwork and other articles, made directly to shape from non-vegetable plaiting ...	-	0.13	0.0%
48194000	Sacks and bags, incl. cones, of paper, paperboard, cellulose wadding or webs of cellulose fibres ...	-	0.02	-6.8%
48201010	Registers, account books, order books and receipt books, of paper or paperboard	-	0.21	n/a
49019900	Printed books, brochures and similar printed matter (excl. those in single sheets; dictionaries, ...	0.04	0.03	-2.7%
49029000	Newspapers, journals and periodicals, whether or not illustrated or containing advertising ...	0.01	0.08	17.0%
49070030	Banknotes	220.93	0.74	-38.2%
49111010	Commercial catalogues	-	0.03	-12.9%
51011900	Greasy wool, incl. fleece-washed wool, neither carded nor combed (excl. shorn wool)	-	169.14	0.6%
53050000	Coconut, abaca 'manila hemp or musa textilis nee', ramie, agave and other vegetable textile ...	-	5.90	16.4%
57049000	Carpets and other floor coverings, of felt, not tufted or flocked, whether or not made up (excl. ...	-	0.57	n/a

58021900	Terry towelling and similar woven terry fabrics, of cotton (excl. unbleached, narrow woven ...	-	1.50	3.4%
60049000	Knitted or crocheted fabrics, of a width of > 30 cm, containing >= 5% by weight elastomeric ...	-	17.28	36.4%
61034300	Men's or boys' trousers, bib and brace overalls, breeches and shorts of synthetic fibres, knitted ...	-	0.84	0.2%
61044200	Women's or girls' dresses of cotton, knitted or crocheted (excl. petticoats)	-	0.37	27.5%
61046200	Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton, knitted ...	-	0.01	-16.4%
61046300	Women's or girls' trousers, bib and brace overalls, breeches and shorts of synthetic fibres, ...	-	0.37	57.4%
61071100	Men's or boys' underpants and briefs of cotton, knitted or crocheted	-	0.10	n/a
61079100	Men's or boys' bathrobes, dressing gowns and similar articles of cotton, knitted or crocheted	-	0.50	n/a
61091000	T-shirts, singlets and other vests of cotton, knitted or crocheted	0.00	0.04	22.1%
61099020	T-shirts, singlets and other vests of wool or fine animal hair or man-made fibres, knitted ...	-	0.12	91.9%
61099090	T-shirts, singlets and other vests of textile materials, knitted or crocheted (excl. of wool, ...	-	0.42	52.7%
61103091	Men's or boys' jerseys, pullovers, cardigans, waistcoats and similar articles, of man-made ...	-	0.08	-6.6%
61103099	Women's or girls' jerseys, pullovers, cardigans, waistcoats and similar articles, of man-made ...	-	0.52	35.8%
61112090	Babies' garments and clothing accessories, of cotton, knitted or crocheted (excl. gloves, ...	-	0.02	32.6%
61142000	Special garments for professional, sporting or other purposes, n.e.s., of cotton, knitted or ...	-	0.36	28.9%
61143000	Special garments for professional, sporting or other purposes, n.e.s., of man-made fibres, ...	-	0.91	45.6%
62029300	Women's or girls' anoraks, windcheaters, wind jackets and similar articles, of man-made fibres ...	-	0.01	-9.4%
62034231	Men's or boys' trousers and breeches of cotton denim (excl. knitted or crocheted, industrial ...	0.39	0.02	-15.2%
62034235	Men's or boys' trousers and breeches of cotton (excl. denim, cut corduroy, knitted or crocheted, ...	0.34	0.04	-13.3%

62034251	Men's or boys' bib and brace overalls, of cotton, industrial and occupational (excl. knitted ...	-	32.15	n/a
62034319	Men's or boys' trousers and breeches of synthetic fibres (excl. knitted or crocheted, industrial ...	1.24	0.28	-11.4%
62043390	Women's or girls' jackets and blazers of synthetic fibres (excl. knitted or crocheted, industrial ...	-	0.04	0.0%
62044200	Women's or girls' dresses of cotton (excl. knitted or crocheted and petticoats)	-	0.18	15.1%
62044300	Women's or girls' dresses of synthetic fibres (excl. knitted or crocheted and petticoats)	-	0.18	32.4%
62044400	Women's or girls' dresses of artificial fibres (excl. knitted or crocheted and petticoats)	-	0.08	-2.2%
62045200	Women's or girls' skirts and divided skirts of cotton (excl. knitted or crocheted and petticoats)	-	0.11	6.5%
62045300	Women's or girls' skirts and divided skirts of synthetic fibres (excl. knitted or crocheted ...	0.36	0.11	-10.8%
62046231	Women's or girls' cotton denim trousers and breeches (excl. industrial and occupational, ...	-	0.01	-2.9%
62046311	Women's or girls' trousers and breeches, of synthetic fibres, industrial and occupational ...	-	3.47	n/a
62046318	Women's or girls' trousers and breeches, of synthetic fibres (not of cut corduroy, of denim ...	0.02	0.26	9.5%
62046390	Women's or girls' shorts of synthetic fibres (excl. knitted or crocheted, panties and swimwear)	-	0.71	51.4%
62064000	Women's or girls' blouses, shirts and shirt-blouses of man-made fibres (excl. knitted or ...	-	0.07	77.8%
62114210	Women's or girls' aprons, overalls, smock-overalls and other industrial and occupational ...	-	0.37	-5.6%
62114290	Women's or girls' garments, of cotton, n.e.s. (not knitted or crocheted)	-	0.20	7.2%
62114310	Women's or girls' aprons, overalls, smock-overalls and other industrial and occupational ...	-	0.26	-23.1%
62114390	Women's or girls' garments, of man-made fibres, n.e.s. (not knitted or crocheted)	-	0.30	52.3%
62149000	Shawls, scarves, mufflers, mantillas, veils and similar articles of textile materials (excl. ...	1.43	1.57	6.1%
62171000	Made-up clothing accessories, of all types of textile materials, n.e.s. (excl. knitted or ...	0.27	0.26	3.8%
62179000	Parts of garments or clothing accessories, of all types of textile materials, n.e.s. (excl. ...	-	1.46	18.9%

63026000	Toilet linen and kitchen linen, of terry towelling or similar terry fabrics of cotton (excl. ...	-	0.04	-14.0%
63029100	Toilet linen and kitchen linen of cotton (excl. of terry fabrics, floorcloths, polishing cloths, ...	-	0.38	15.5%
64029998	Footwear with outer soles of rubber or of plastics and uppers of plastics, with in-soles of ...	-	0.04	n/a
64032000	Footwear with outer soles of leather, and uppers which consist of leather straps across the ...	0.09	3.47	20.3%
64034000	Footwear, incorporating a protective metal toecap, with outer soles of rubber, plastics, leather ...	-	0.11	36.8%
64059010	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of ...	0.40	1.82	18.3%
67030000	Human hair, dressed, thinned, bleached or otherwise worked; wool, other animal hair or other ...	-	0.71	-4.9%
67041900	False beards, eyebrows and eyelashes, switches and the like, of synthetic textile materials ...	-	2.13	15.3%
67049000	Wigs, false beards, eyebrows and eyelashes, switches and the like, of animal hair or textile ...	-	0.50	1.6%
68029990	Monumental or building stone, natural (excl. calcareous stone, granite and slate), in various ...	18.39	4.24	-5.6%
68042100	Millstones, grindstones, grinding wheels and the like, without frameworks, for sharpening, ...	-	1.61	-4.0%
68159900	Articles of stone or other mineral substances, n.e.s. (excl. containing magnesite, dolomite ...	0.48	1.21	13.0%
69120029	Tableware and kitchenware, of ceramics other than porcelain, china, common pottery, stoneware, ...	n/a	0.14	n/a
69139098	Statuettes and other ornamental ceramic articles, n.e.s. (excl. of porcelain or china, common ...	0.86	0.45	-9.7%
69149000	Ceramic articles, n.e.s. (excl. of porcelain or china)	-	0.83	57.8%
70072180	Laminated safety glass of size and shape suitable for incorporation in aircraft, spacecraft, ...	-	0.51	-77.8%
70181090	Imitation coral and similar glass smallwares (excl. articles thereof and imitation pearls, ...	-	5.59	-30.4%
70189090	Statuettes and other ornaments of lamp-worked glass (excl. imitation jewellery)	0.75	0.27	0.0%
71039900	Precious and semi-precious stones, worked, whether or not graded, but not strung, mounted or ...	2.72	2.51	1.8%
71049000	Precious and semi-precious stones, synthetic or reconstructed, worked, whether or not graded ...	-	0.68	0.0%
71131900	Articles of jewellery and parts thereof, of precious metal other than silver, whether or not ...	0.02	0.39	24.1%

71142000	Articles of goldsmiths' or silversmiths' wares and parts thereof, of base metal clad with precious ...	-	10.24	n/a
71162080	Articles of precious or semi-precious stones (natural, synthetic or reconstructed), n.e.s.	-	0.51	23.6%
71171900	Imitation jewellery, of base metal, whether or not plated with precious metal (excl. cuff links ...	0.28	1.79	39.5%
71179000	Imitation jewellery (excl. jewellery, of base metal, whether or not clad with silver, gold ...	0.19	0.58	10.0%
72042190	Waste and scrap of stainless steel (not containing >= 8% nickel, radioactive, or waste and ...	1.13	20.19	20.6%
72042900	Waste and scrap of alloy steel (excl. stainless steel, and waste and scrap, radioactive, or ...	-	114.66	-11.1%
73239300	Table, kitchen or other household articles, and parts thereof, of stainless steel (excl. cans, ...	0.08	1.49	105.3%
73269098	Articles of iron or steel, n.e.s.	0.07	0.07	4.7%
74040091	Waste and scrap, of copper-zinc base alloys 'brass' (excl. ingots or other similar unwrought ...	1.33	33.20	28.3%
74040099	Waste and scrap, of copper alloys (excl. of copper-zinc alloys, ingots or other similar unwrought ...	37.71	2.27	-10.0%
76020090	Scrap of aluminium (excl. slags, scale and the like from iron and steel production, containing ...	-	0.92	34.6%
76151010	Table, kitchen or other household articles and parts thereof, and pot scourers and scouring ...	12.83	13.94	27.6%
76151080	Table, kitchen or other household articles and parts thereof, and pot scourers and scouring ...	4.46	3.91	-1.7%
76152000	Sanitary ware and parts thereof, of aluminium (excl. cans, boxes and similar containers of ...	-	2.82	-12.5%
78020000	Lead waste and scrap (excl. ashes and residues from lead production 'heading no 2620', and ...	0.68	1.70	7.6%
82073090	Interchangeable tools for pressing, stamping or punching, for working materials other than ...	-	1.09	14.9%
84069090	Parts of steam turbines and other vapour turbines, n.e.s. (excl. stator blades, rotors and ...	-	0.78	24.3%
84071000	Spark-ignition reciprocating or rotary internal combustion piston engine, for aircraft	-	1.88	n/a
84099900	Parts suitable for use solely or principally with compression-ignition internal combustion ...	-	0.01	-10.6%
84118100	Gas turbines of a power <= 5.000 kw (excl. turbojets and turbopropellers)	-	0.02	-76.8%
84119100	Parts of turbojets or turbopropellers, n.e.s.	0.11	0.00	-22.5%
84122120	Hydraulic systems, linear acting 'cylinders'	-	0.07	-22.4%

84122981	Hydraulic fluid power motors (excl. hydraulic power engines and motors, linear acting [cylinders] ...	-	0.01	-12.9%
84131900	Pumps for liquids, fitted or designed to be fitted with a measuring device (excl. pumps for ...	-	0.32	n/a
84139100	Parts of pumps for liquids, n.e.s.	-	0.01	-9.7%
84139200	Parts of liquid elevators, n.e.s.	-	0.74	8.8%
84145920	Axial fans (excl. table, floor, wall, window, ceiling or roof fans, with a self-contained electric ...	-	0.07	14.0%
84186900	Refrigerating or freezing equipment (excl. refrigerating and freezing furniture)	-	0.26	n/a
84211970	Centrifuges, incl. centrifugal dryers (excl. apparatus for isotope separation, cream separators, ...	-	0.07	n/a
84241000	Fire extinguishers, whether or not charged	0.05	0.30	32.9%
84254200	Jacks and hoists, hydraulic (excl. built-in jacking systems used in garages)	-	0.07	-42.8%
84306900	Earth-moving machinery, not self-propelled, n.e.s.	-	1.15	n/a
84409000	Parts of bookbinding machinery, n.e.s.	-	0.11	n/a
84433210	Printers capable of connecting to an automatic data processing machine or to a network	-	0.01	-70.3%
84439199	Parts and accessories of printing machinery used for printing by means of plates, cylinders ...	-	0.18	-19.1%
84439990	parts and accessories of printers, copying machines and facsimile machines, n.e.s. (excl. electronic ...	0.01	0.00	-19.4%
84669400	parts and accessories for machine tools for working metal without removing material, n.e.s.	0.10	0.01	-21.7%
84713000	Data-processing machines, automatic, portable, weighing <= 10 kg, consisting of at least a ...	0.02	0.01	2.0%
84714900	Data-processing machines, automatic, digital, presented in the form of systems 'comprising ...	0.11	0.00	-28.8%
84715000	Processing units for automatic data-processing machines, whether or not containing in the same ...	-	0.00	-18.0%
84717050	Hard disk storage drives for digital automatic data-processing machines, neither optical nor ...	-	0.00	-43.3%
84717070	Disk storage units for digital automatic data-processing machines, neither optical nor magneto-optical ...	-	0.05	-15.6%

84718000	Units for automatic data-processing machines (excl. processing units, input or output units ...	0.00	0.05	12.7%
84719000	Magnetic or optical readers, machines for transcribing data onto data media in coded form and ...	0.00	0.08	21.7%
84733080	Parts and accessories of automatic data-processing machines or for other machines of heading ...	0.00	0.06	24.8%
84735080	parts and accessories equally suitable for use with two or more typewriters, word-processing ...	0.38	1.27	-6.1%
84798997	Machines, apparatus and mechanical appliances, n.e.s.	0.01	0.00	-4.0%
84799080	Parts of machines and mechanical appliances having individual functions, n.e.s. (excl. of cast ...	0.05	0.00	-26.0%
84811005	Pressure-reducing valves combined with filters or lubricators	-	0.28	2.0%
84813091	Check 'non-return' valves for pipes, boiler shells, tanks, vats or the like, of cast iron or ...	-	0.51	19.4%
84814010	Safety or relief valves of cast iron or steel	-	0.19	n/a
84818019	Taps, cocks and valves for sinks, washbasins, bidets, water cisterns, baths and similar fixtures ...	-	0.02	-8.0%
84818099	Appliances for pipes, boiler shells, tanks, vats or the like (excl. pressure-reducing valves, ...	-	0.00	-15.2%
84836080	Clutches and shaft couplings, incl. universal joints (excl. of cast iron or cast steel)	-	4.64	n/a
84879090	Machinery parts of chapter 84, not intended for a specific purpose, n.e.s.	-	0.03	0.0%
85011010	Synchronous motors of an output <= 18 w	-	0.06	n/a
85044030	Static converters of a kind used with telecommunication apparatus, automatic data-processing ...	0.01	0.12	29.2%
85044055	Accumulator chargers (excl. of a kind used with telecommunication apparatus, automatic data-processing ...	-	0.01	-12.8%
85044090	Static converters (excl. of a kind used with telecommunication apparatus, automatic data-processing ...	0.02	0.09	22.0%
85069000	Parts of primary cells and primary batteries, n.e.s.	-	0.44	300.0%
85171800	Telephone sets (excl. line telephone sets with cordless handsets and telephones for cellular ...	-	0.01	10.4%
85176200	Machines for the reception, conversion and transmission or regeneration of voice, images or ...	0.01	0.02	11.8%
85177090	parts of telephone sets, telephones for cellular networks or for other wireless networks and ...	0.01	0.04	5.0%

85182100	Single loudspeakers, mounted in their enclosures	-	0.09	9.8%
85183095	Headphones and earphones, whether or not combined with microphone, and sets consisting of a ...	-	0.01	-26.3%
85189000	Parts of microphones, loudspeakers, headphones and earphones, earphones, audio-frequency electric ...	-	0.15	-32.2%
85198195	Sound recording or sound reproducing apparatus, using magnetic, optical or semiconductor media ...	-	0.04	n/a
85229080	Parts and accessories suitable for use solely or principally with sound reproducing and recording ...	0.02	2.00	32.0%
85238099	Gramophone records and other media, recorded, for reproducing sound or image, incl. matrices ...	-	0.15	-29.3%
85256000	Transmission apparatus for radio-broadcasting or television, incorporating reception apparatus	0.02	0.08	4.6%
85258019	Television cameras (excl. those with 3 or more camera tubes and video recorders)	0.08	0.06	-2.6%
85269180	Radio navigational aid apparatus (excl. receivers and radar apparatus)	-	0.27	18.2%
85285939	Colour flat panel displays, not incorporating television reception apparatus, able to display ...	0.04	0.39	231.7%
85287300	Reception apparatus for television, black and white or other monochrome, whether or not incorporating ...	-	0.87	14.9%
85318095	Electric sound or visual signalling apparatus (excl. with flat panel display devices, indicator ...	-	0.06	-38.8%
85319085	Parts of electric sound or visual signalling equipment, n.e.s. (excl. of indicator panels with ...	0.04	0.02	-4.4%
85364190	Relays for a voltage ≤ 60 v, for a current > 2 a	-	0.05	-9.4%
85369010	Connections and contact elements, for wire and cables, for a voltage of ≤ 1.000 v (excl. plugs, ...	-	0.01	-5.2%
85371010	Numerical control panels with built-in automatic data-processing machines	-	0.52	21.3%
85371091	Programmable memory controllers (excl. numerical control panels with built-in automatic data-processing ...	-	0.02	11.3%
85371099	Boards, cabinets and similar combinations of apparatus for electric control or the distribution ...	-	0.19	54.3%
85391000	Sealed beam lamp units	-	0.03	n/a
85437090	Electrical machines and apparatus, having individual functions, n.e.s. in chap. 85	0.01	0.00	-5.5%

85439000	Parts of electrical machines and apparatus, having individual functions, n.e.s. in chapter ...	-	0.02	0.0%
87032390	Motor cars and other motor vehicles principally designed for the transport of ...	-	0.24	-16.5%
87032490	Motor cars and other motor vehicles principally designed for the transport of ...	-	0.03	-21.5%
87043199	Motor vehicles for the transport of goods, with spark-ignition internal combustion piston engine, ...	-	20.45	n/a
87082990	Parts and accessories for the industrial assembly of bodies of: tractors, motor vehicles for ...	-	0.00	-4.7%
87089997	Parts and accessories for tractors, motor vehicles for the transport of ten or more persons, ...	0.00	0.03	36.4%
87149990	Parts and accessories for bicycles, and parts thereof, n.e.s.	-	0.01	0.0%
88031000	Propellers and rotors and parts thereof, for aircraft, n.e.s.	-	0.20	-20.0%
88032000	Under-carriages and parts thereof, for aircraft, n.e.s.	0.01	0.01	8.0%
88033000	Parts of aeroplanes or helicopters, n.e.s. (excl. those for gliders)	0.18	0.06	-42.9%
90069900	Parts and accessories for photographic flashlights and flashlight apparatus, n.e.s.	-	0.16	-10.9%
90141000	Direction finding compasses	-	0.25	17.6%
90142080	Instruments and appliances for aeronautical or space navigation (excl. inertial navigation ...	0.15	0.08	-11.6%
90152010	Electronic theodolites and tachymeters 'tacheometers'	-	0.10	-59.2%
90158019	Electronic instruments and appliances used in geodesy, topography, hydrography or oceanography ...	-	6.14	n/a
90184990	Instruments and appliances used in dental sciences, n.e.s.	-	0.30	34.2%
90189020	Endoscopes used in medical, surgical or veterinary sciences	0.47	5.41	28.2%
90189030	Renal dialysis equipment 'artificial kidneys, kidney machines and dialysers'	-	0.02	n/a
90189040	Diathermic apparatus (excl. ultraviolet or infra-red apparatus)	0.42	1.40	32.7%
90189084	Instruments and appliances used in medical, surgical or veterinary sciences, n.e.s.	0.08	0.02	-29.4%
90214000	Hearing aids (excl. parts and accessories)	0.08	0.05	5.6%

90251920	Thermometers and pyrometers, not combined with other instruments, electronic	-	0.21	-18.9%
90268020	Electronic instruments or apparatus for measuring or checking variables of liquids or gases, ...	-	0.05	10.7%
90273000	Spectrometers, spectrophotometers and spectrographs using optical radiations, such as uv, visible, ...	-	0.08	-2.7%
90275000	Instruments and apparatus for physical or chemical analysis, using uv, visible or ir optical ...	-	0.06	-26.0%
90279050	Parts and accessories of instruments and apparatus for physical or chemical analysis, e.g. ...	-	0.00	0.0%
90302091	Electronic oscilloscopes and oscillographs, without recording device (excl. cathode ray oscilloscopes ...	-	0.86	n/a
90303310	Electronic instruments and apparatus for measuring or checking voltage, current, resistance ...	0.04	1.78	57.6%
90304000	Instruments and apparatus for measuring or checking electrical quantities, specifically for ...	0.12	0.15	-0.8%
90308930	Electronic instruments and appliances for measuring or checking electrical quantities, without ...	0.34	0.74	11.7%
90309085	Parts and accessories for instruments and apparatus for measuring or checking electrical quantities ...	-	0.09	-15.5%
90318098	Non-electronic and non-optical instruments, apparatus and machines for measuring or checking, ...	0.07	1.89	41.4%
90328100	Hydraulic or pneumatic regulating or controlling instruments and apparatus (excl. manostats ...	-	0.09	-66.5%
90328900	Regulating or controlling instruments and apparatus (excl. hydraulic or pneumatic, manostats, ...	-	0.27	57.7%
90329000	Parts and accessories for regulating or controlling instruments and apparatus, n.e.s.	-	0.01	-29.3%
91021900	Wrist-watches, whether or not incorporating a stop-watch facility, electrically operated, with ...	-	0.84	26.0%
93040000	Spring, air or gas guns and pistols, truncheons and other non-firearms (excl. swords, cutlasses, ...	-	1.17	n/a
94029000	Operating tables, examination tables, and other medical, dental, surgical or veterinary furniture ...	-	0.08	17.0%
94031098	Metal furniture for offices, of > 80 cm in height (excl. tables with special fittings for drawing ...	-	0.04	-29.3%
94036010	Wooden furniture for dining rooms and living rooms (excl. seats)	0.14	0.02	-14.2%
94054010	Electric searchlights and spotlights (excl. for aircraft, motor vehicles or bicycles, and searchlight ...	-	0.05	50.0%

94054099	Electric lamps and lighting fittings, n.e.s. (excl. of plastics)	-	0.01	4.6%
95030049	Toys representing animals or non-human creatures (excl. stuffed)	-	0.11	4.3%
95030099	Toys, n.e.s.	0.08	0.03	-10.8%
95043020	Games without screen, operated by coins, banknotes, bank cards, tokens or by other means of ...	-	79.54	-32.9%
95043090	Parts of games operated by coins, banknotes 'paper currency', discs or other similar articles ...	-	2.50	-1.1%
95049080	Tables for casino games, automatic bowling alley equipment, and other funfair, table or parlour ...	12.59	41.29	32.9%
95066200	Inflatable balls	-	0.05	-53.0%
95066990	Balls (excl. inflatable, golf, table-tennis, tennis, cricket and polo balls)	-	0.27	18.9%
95072010	Fish-hooks, whether or not snelled, unmounted	13.52	7.97	-5.1%
95072090	Fish-hooks, whether or not snelled, mounted	45.68	12.43	-7.1%
95079000	Line fishing tackle n.e.s; fish landing nets, butterfly nets and similar nets; decoys and similar ...	35.04	10.18	-4.4%
96072090	Parts of slide fasteners (other than of base metal)	-	2.02	0.0%
96081099	Ball-point pens (excl. with replaceable refill, and with liquid ink)	-	0.85	26.9%
96100000	Slates and boards, with writing or drawing surfaces, whether or not framed	-	0.53	-28.0%
97011000	Paintings, e.g. oil paintings, watercolours and pastels, and drawings executed entirely by ...	0.01	0.03	4.1%
97019000	Collages and similar decorative plaques	0.17	0.09	0.0%
97030000	Original sculptures and statuary, in any material	0.80	0.69	1.8%
97050000	Collections and collector's pieces of zoological, botanical, mineralogical, anatomical, historical, ...	0.12	0.06	2.9%
99209900	No product description available	1.62	1.11	2.8%
99997100	No product description available	0.00	0.07	-1.9%
99998500	No product description available	0.04	0.04	3.2%
99998700	No product description available	-	0.58	-6.7%

*earliest year .

Appendix 4: Methodology for categorizing export competitiveness

Table A1: Export competitiveness descriptors

Column 1	Column 2	Column 3	Column 4	Column 5
Type	Stability index	Export specialization index	Quartile of competitiveness index (index of column 2 and 3)	New product
Sunrise	Relatively high*	Relatively high	2	Yes
Cash cow	High	High	1	No
Intermittent	Relatively low	Relatively low	3	Yes
Laggard	Low	Low	4	No

*by relatively we mean in relation to the other categories.

To arrive at these categories, we use principal component analysis (PCA) to condense the Stability Index (Column 2) and Export specialization index (column 3) into unitless values that derive the maximum information, to form a competitiveness index. This competitiveness index is then separated out by quartiles. The quartile values in column 4 of table A1, are then interacted with 'new products' (column 5) to flesh out the 4 categories. Values that fall within Quartile 1 but are not new (old) products, are described as Cash Cows, as they have the lowest instability and the highest export specialisation, while values in quartile 4 and not new (old) products, are depicted as Laggards as they are the most instable with lowest values of export specialization. The competitiveness index values that fall into Quartile 2 and Quartile 3, and new products, are classified as Sunrise and Intermittent respectively.

Appendix 5: Export competitiveness categories (sunrise, cash cow, intermittent, laggard)

Product code	Product label	Category
06031500	Fresh cut lilies 'lilium spp.' and buds, of a kind suitable for bouquets or for ornamental ...	Sunrise
07099310	Fresh or chilled courgettes	Sunrise
07133100	Dried, shelled beans of species 'vigna mungo [l.] hepper or vigna radiata [l.] wilczek', whether ...	Sunrise
08072000	Fresh pawpaws 'papayas'	Sunrise
08102010	Fresh raspberries	Sunrise
12099180	Vegetable seeds for sowing (excl. salad beet or beetroot 'beta vulgaris var. conditiva')	Sunrise
12129300	Sugar cane, fresh, chilled, frozen or dried, whether or not ground	Sunrise
15155019	Crude sesame oil (excl. for technical or industrial uses)	Sunrise
15155099	Sesame oil and its fractions, whether or not refined, but not chemically modified (excl. for ...	Sunrise
15219099	Beeswax and other insect waxes, whether or not refined or coloured (excl. crude)	Sunrise
20019097	Vegetables, fruit, nuts and other edible parts of plants, prepared or preserved by vinegar ...	Sunrise
20089999	Fruit and other edible part of plants, prepared or preserved, not containing added spirit or ...	Sunrise
27030000	Peat, incl. peat litter, whether or not agglomerated	Sunrise
39239000	Articles for the conveyance or packaging of goods, of plastics (excl. boxes, cases, crates ...	Sunrise
42021250	Trunks, suitcases, vanity cases, executive-cases, briefcases, school satchels and similar containers, ...	Sunrise
42029298	Insulated food or beverage bags, shopping bags, map-cases, tool bags, jewellery boxes, cutlery ...	Sunrise
44140090	Wooden frames for paintings, photographs, mirrors or similar objects (excl. of tropical wood ...	Sunrise
57049000	Carpets and other floor coverings, of felt, not tufted or flocked, whether or not made up (excl. ...	Sunrise
60049000	Knitted or crocheted fabrics, of a width of > 30 cm, containing >= 5% by weight elastomeric ...	Sunrise
61044200	Women's or girls' dresses of cotton, knitted or crocheted (excl. petticoats)	Sunrise
61071100	Men's or boys' underpants and briefs of cotton, knitted or crocheted	Sunrise
61099020	T-shirts, singlets and other vests of wool or fine animal hair or man-made fibres, knitted ...	Sunrise
62029300	Women's or girls' anoraks, windcheaters, wind jackets and similar articles, of man-made fibres ...	Sunrise
62034251	Men's or boys' bib and brace overalls, of cotton, industrial and occupational (excl. knitted ...	Sunrise
62045300	Women's or girls' skirts and divided skirts of synthetic fibres (excl. knitted or crocheted ...	Sunrise
62046311	Women's or girls' trousers and breeches, of synthetic fibres, industrial and occupational ...	Sunrise
62114390	Women's or girls' garments, of man-made fibres, n.e.s. (not knitted or crocheted)	Sunrise
64029998	Footwear with outer soles of rubber or of plastics and uppers of plastics, with in-soles of ...	Sunrise

68029990	Monumental or building stone, natural (excl. calcareous stone, granite and slate), in various ...	Sunrise
69149000	Ceramic articles, n.e.s. (excl. of porcelain or china)	Sunrise
71171900	Imitation jewellery, of base metal, whether or not plated with precious metal (excl. cuff links ...	Sunrise
71179000	Imitation jewellery (excl. jewellery, of base metal, whether or not clad with silver, gold ...	Sunrise
76152000	Sanitary ware and parts thereof, of aluminium (excl. cans, boxes and similar containers of ...	Sunrise
84118100	Gas turbines of a power <= 5.000 kw (excl. turbojets and turbopropellers)	Sunrise
84439990	Parts and accessories of printers, copying machines and facsimile machines, n.e.s. (excl. electronic ...	Sunrise
84669400	Parts and accessories for machine tools for working metal without removing material, n.e.s.	Sunrise
84735080	Parts and accessories equally suitable for use with two or more typewriters, word-processing ...	Sunrise
84799080	Parts of machines and mechanical appliances having individual functions, n.e.s. (excl. of cast ...	Sunrise
85183095	Headphones and earphones, whether or not combined with microphone, and sets consisting of a ...	Sunrise
85391000	Sealed beam lamp units	Sunrise
85439000	Parts of electrical machines and apparatus, having individual functions, n.e.s. in chapter ...	Sunrise
90309085	Parts and accessories for instruments and apparatus for measuring or checking electrical quantities ...	Sunrise
90329000	Parts and accessories for regulating or controlling instruments and apparatus, n.e.s.	Sunrise
91021900	Wrist-watches, whether or not incorporating a stop-watch facility, electrically operated, with ...	Sunrise
94031098	Metal furniture for offices, of > 80 cm in height (excl. tables with special fittings for drawing ...	Sunrise
95043090	Parts of games operated by coins, banknotes 'paper currency', discs or other similar articles ...	Sunrise
95066200	Inflatable balls	Sunrise
95072090	Fish-hooks, whether or not snelled, mounted	Sunrise
99998500	No product description available	Sunrise
01062000	Live reptiles e.g. snakes, turtles, alligators, caymans, iguanas, gavials and lizards'	Cash cow
06021090	Unrooted cuttings and slips (excl. vines)	Cash cow
06039000	Dried, dyed, bleached, impregnated or otherwise prepared cut flowers and buds, for bouquets ...	Cash cow
07031011	Onion sets, fresh or chilled	Cash cow
07031019	Onions, fresh or chilled (excl. sets)	Cash cow
07039000	Leeks and other alliaceous vegetables, fresh or chilled (excl. onions, shallots and garlic)	Cash cow
07061000	Fresh or chilled carrots and turnips	Cash cow
07081000	Fresh or chilled peas 'pisum sativum', shelled or unshelled	Cash cow
07082000	Fresh or chilled beans 'vigna spp., phaseolus spp.', shelled or unshelled	Cash cow
07092000	Fresh or chilled asparagus	Cash cow
07093000	Fresh or chilled aubergines 'eggplants'	Cash cow
07096099	Fresh or chilled fruits of genus capsicum or pimenta (excl. for industrial manufacture of capsin ...	Cash cow
07099990	Fresh or chilled vegetables n.e.s.	Cash cow

08029085	Nuts, fresh or dried, whether or not shelled or peeled (excl. coconuts, brazil nuts, cashew ...	Cash cow
09011100	Coffee (excl. roasted and decaffeinated)	Cash cow
09024000	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	Cash cow
09109991	Spices, neither crushed nor ground (excl. pepper of the genus piper, fruit of the genus capsicum ...	Cash cow
12093000	Seeds of herbaceous plants cultivated mainly for flowers, for sowing	Cash cow
15159059	Crude fixed vegetable fats and oils, in immediate packings of a content of > 1 kg, or crude, ...	Cash cow
19019091	Food preparations of flour, groats, meal, starch or malt extract, containing no milkfats, sucrose, ...	Cash cow
20082079	Pineapples, prepared or preserved, containing added sugar but no added spirit, with sugar content ...	Cash cow
20082090	Pineapples, prepared or preserved, not containing added spirit or added sugar	Cash cow
21012020	Extracts, essences and concentrates, of tea or maté	Cash cow
21012092	Preparations with a basis of extracts, essences and concentrates of tea or maté	Cash cow
33012941	Essential oils, not deterpenated, incl. concretes and absolutes (except of citrus fruit, mint, ...	Cash cow
42029291	Travelling-bags, toilet bags, rucksacks and sports bags, with outer surface of textile materials	Cash cow
44201011	Statuettes and other ornaments, of okoumé, obeche, sapelli, sipo, acajou d'afrique, makoré, ...	Cash cow
44201019	Statuettes and other ornaments, of wood (excl. okoumé, obeche, sapelli, sipo, acajou d'afrique, ...	Cash cow
44209099	Caskets and cases for jewellery or cutlery, and similar articles and articles of furniture ...	Cash cow
48194000	Sacks and bags, incl. cones, of paper, paperboard, cellulose wadding or webs of cellulose fibres ...	Cash cow
53050000	Coconut, abaca 'manila hemp or musa textilis nee', ramie, agave and other vegetable textile ...	Cash cow
62044300	Women's or girls' dresses of synthetic fibres (excl. knitted or crocheted and petticoats)	Cash cow
62179000	Parts of garments or clothing accessories, of all types of textile materials, n.e.s. (excl. ...	Cash cow
64034000	Footwear, incorporating a protective metal toecap, with outer soles of rubber, plastics, leather ...	Cash cow
68042100	Millstones, grindstones, grinding wheels and the like, without frameworks, for sharpening, ...	Cash cow
72042190	Waste and scrap of stainless steel (not containing >= 8% nickel, radioactive, or waste and ...	Cash cow
74040091	Waste and scrap, of copper-zinc base alloys 'brass' (excl. ingots or other similar unwrought ...	Cash cow
84122120	Hydraulic systems, linear acting 'cylinders'	Cash cow
84718000	Units for automatic data-processing machines (excl. processing units, input or output units ...	Cash cow
84733080	Parts and accessories of automatic data-processing machines or for other machines of heading ...	Cash cow
84798997	Machines, apparatus and mechanical appliances, n.e.s.	Cash cow
84811005	Pressure-reducing valves combined with filters or lubricators	Cash cow
85177090	Parts of telephone sets, telephones for cellular networks or for other wireless networks and ...	Cash cow
85182100	Single loudspeakers, mounted in their enclosures	Cash cow
95079000	Line fishing tackle n.e.s; fish landing nets, butterfly nets and similar nets; decoys and similar ...	Cash cow

06031400	Fresh cut chrysanthemums and buds, of a kind suitable for bouquets or for ornamental purposes	Intermittent
06031910	Fresh cut gladioli and buds, of a kind suitable for bouquets or for ornamental purposes	Intermittent
06049091	Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, suitable ...	Intermittent
07133500	Dried, shelled cow peas 'vigna unguiculata', whether or not skinned or split	Intermittent
07142090	Sweet potatoes, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets ...	Intermittent
12119086	Plants and parts of plants, incl. seeds and fruits, used primarily in perfumery, in pharmacy ...	Intermittent
20052020	Potatoes in thin slices, cooked in fat or oil, whether or not salted or flavoured, in airtight ...	Intermittent
20082059	Pineapples, prepared or preserved, containing added sugar but no added spirit, with a sugar ...	Intermittent
22030001	Beer made from malt, in bottles holding <= 10 l	Intermittent
30049000	Other	Intermittent
42010000	Saddlery and harness for any animal, incl. traces, leads, knee pads, muzzles, saddle cloths, ...	Intermittent
42021110	Executive-cases, briefcases, portfolios, school satchels and similar containers with outer ...	Intermittent
48201010	Registers, account books, order books and receipt books, of paper or paperboard	Intermittent
61103091	Men's or boys' jerseys, pullovers, cardigans, waistcoats and similar articles, of man-made ...	Intermittent
61103099	Women's or girls' jerseys, pullovers, cardigans, waistcoats and similar articles, of man-made ...	Intermittent
61112090	Babies' garments and clothing accessories, of cotton, knitted or crocheted (excl. gloves, ...	Intermittent
62034235	Men's or boys' trousers and breeches of cotton (excl. denim, cut corduroy, knitted or crocheted, ...	Intermittent
62044400	Women's or girls' dresses of artificial fibres (excl. knitted or crocheted and petticoats)	Intermittent
62064000	Women's or girls' blouses, shirts and shirt-blouses of man-made fibres (excl. knitted or ...	Intermittent
62114290	Women's or girls' garments, of cotton, n.e.s. (not knitted or crocheted)	Intermittent
62114310	Women's or girls' aprons, overalls, smock-overalls and other industrial and occupational ...	Intermittent
62149000	Shawls, scarves, mufflers, mantillas, veils and similar articles of textile materials (excl. ...	Intermittent
70072180	Laminated safety glass of size and shape suitable for incorporation in aircraft, spacecraft, ...	Intermittent
71039900	Precious and semi-precious stones, worked, whether or not graded, but not strung, mounted or ...	Intermittent
76151010	Table, kitchen or other household articles and parts thereof, and pot scourers and scouring ...	Intermittent
84145920	Axial fans (excl. table, floor, wall, window, ceiling or roof fans, with a self-contained electric ...	Intermittent
84186900	Refrigerating or freezing equipment (excl. refrigerating and freezing furniture)	Intermittent
84306900	Earth moving machinery, not self-propelled, n.e.s.	Intermittent
84717050	Hard disk storage drives for digital automatic data-processing machines, neither optical nor ...	Intermittent
84814010	Safety or relief valves of cast iron or steel	Intermittent
84836080	Clutches and shaft couplings, incl. universal joints (excl. of cast iron or cast steel)	Intermittent
85011010	Synchronous motors of an output <= 18 w	Intermittent

85189000	Parts of microphones, loudspeakers, headphones and earphones, earphones, audio-frequency electric ...	Intermittent
85198195	Sound recording or sound reproducing apparatus, using magnetic, optical or semiconductor media ...	Intermittent
85238099	Gramophone records and other media, recorded, for reproducing sound or image, incl. matrices ...	Intermittent
85256000	Transmission apparatus for radio-broadcasting or television, incorporating reception apparatus	Intermittent
85287300	Reception apparatus for television, black and white or other monochrome, whether or not incorporating ...	Intermittent
85318095	Electric sound or visual signalling apparatus (excl. with flat panel display devices, indicator ...	Intermittent
87043199	Motor vehicles for the transport of goods, with spark-ignition internal combustion piston engine, ...	Intermittent
87089997	Parts and accessories for tractors, motor vehicles for the transport of ten or more persons, ...	Intermittent
88031000	Propellers and rotors and parts thereof, for aircraft, n.e.s.	Intermittent
88032000	Under-carriages and parts thereof, for aircraft, n.e.s.	Intermittent
90142080	Instruments and appliances for aeronautical or space navigation (excl. inertial navigation ...	Intermittent
90152010	Electronic theodolites and tachymeters 'tacheometers'	Intermittent
90268020	Electronic instruments or apparatus for measuring or checking variables of liquids or gases, ...	Intermittent
90302091	Electronic oscilloscopes and oscillographs, without recording device (excl. cathode ray oscilloscopes ...	Intermittent
93040000	Spring, air or gas guns and pistols, truncheons and other non-firearms (excl. swords, cutlasses, ...	Intermittent
96081099	Ball-point pens (excl. with replaceable refill, and with liquid ink)	Intermittent
9019099	Food preparations of flour, groats, meal, starch or malt extract, not containing cocoa or containing ...	Laggard
19041010	Prepared foods obtained by swelling or roasting cereals or cereal products based on maize	Laggard
19041090	Prepared foods obtained by swelling or roasting cereals or cereal products (excl. based on ...	Laggard
39264000	Statuettes and other ornamental articles, of plastics	Laggard
49019900	Printed books, brochures and similar printed matter (excl. those in single sheets; dictionaries, ...	Laggard
61034300	Men's or boys' trousers, bib and brace overalls, breeches and shorts of synthetic fibres, knitted ...	Laggard
61091000	T-shirts, singlets and other vests of cotton, knitted or crocheted	Laggard
62034231	Men's or boys' trousers and breeches of cotton denim (excl. knitted or crocheted, industrial ...	Laggard
62034319	Men's or boys' trousers and breeches of synthetic fibres (excl. knitted or crocheted, industrial ...	Laggard
62046318	Women's or girls' trousers and breeches, of synthetic fibres (not of cut corduroy, of denim ...	Laggard
63026000	Toilet linen and kitchen linen, of terry towelling or similar terry fabrics of cotton (excl. ...	Laggard
64032000	Footwear with outer soles of leather, and uppers which consist of leather straps across the ...	Laggard
67049000	Wigs, false beards, eyebrows and eyelashes, switches and the like, of animal hair or textile ...	Laggard
71162080	Articles of precious or semi-precious stones (natural, synthetic or reconstructed), n.e.s.	Laggard
82073090	Interchangeable tools for pressing, stamping or punching, for working materials other than ...	Laggard

84099900	Parts suitable for use solely or principally with compression-ignition internal combustion ...	Laggard
84241000	Fire extinguishers, whether or not charged	Laggard
84818019	Taps, cocks and valves for sinks, washbasins, bidets, water cisterns, baths and similar fixtures ...	Laggard
84818099	Appliances for pipes, boiler shells, tanks, vats or the like (excl. pressure-reducing valves, ...)	Laggard
85044090	Static converters (excl. of a kind used with telecommunication apparatus, automatic data-processing ...)	Laggard
85364190	Relays for a voltage ≤ 60 v, for a current > 2 a	Laggard
87032390	Motor cars and other motor vehicles principally designed for the transport of ...	Laggard
90184990	Instruments and appliances used in dental sciences, n.e.s.	Laggard
90275000	Instruments and apparatus for physical or chemical analysis, using uv, visible or ir optical ...	Laggard
90303310	Electronic instruments and apparatus for measuring or checking voltage, current, resistance ...	Laggard
90308930	Electronic instruments and appliances for measuring or checking electrical quantities, without ...	Laggard
90328900	Regulating or controlling instruments and apparatus (excl. hydraulic or pneumatic, manostats, ...)	Laggard

Appendix 6: Service exports from Kenya to UK

Services (share of total service exports to UK)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Transportation	28.80	29.32	26.73	28.35	29.87	27.81	27.18	28.70	28.11	28.77	33.86	31.40
Travel	60.21	58.31	61.23	60.32	59.20	61.25	60.40	59.07	57.16	59.45	52.36	53.96
Communications services	0.23	0.24	0.20	0.25	0.36	0.34	0.38	0.27	0.37	0.39	0.41	0.35
Construction	0.04	0.04	0.04	0.02	0.05	0.04	0.03	0.03	0.04	0.03	0.03	0.02
Insurance services	0.17	0.67	0.43	0.64	0.24	0.18	0.29	0.31	0.42	0.56	0.41	1.22
Financial services	0.42	0.25	0.76	0.32	0.71	0.60	0.58	0.62	0.81	0.59	0.67	1.07
Computer and information services	0.03	0.04	0.05	0.04	0.05	0.05	0.05	0.05	0.08	0.06	0.10	0.10
Royalties and license fees	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Other business services	8.37	9.38	8.54	8.42	7.98	8.40	9.13	9.23	10.98	8.47	10.16	10.35
Personal, cultural and recreational services	0.37	0.42	0.35	0.36	0.28	0.26	0.79	0.28	0.38	0.21	0.36	0.25
Government services, n.i.e.	1.36	1.33	1.66	1.26	1.24	1.07	1.16	1.44	1.66	1.47	1.64	1.28
Total service to UK (USD million)	192.8034	200.7672	256.8287	241.1826	339.5583	377.7523	505.1551	411.3325	476.4149	535.0129	495.6832	648.6056
Total to world (USD million)	1 224.4833	1 320.7487	1 511.6085	1 975.1854	2 100.6307	2 457.891	2 953.5767	3 107.077	3 038.0457	3 715.4333	3 765.8443	4 183.384

Appendix 7: Stability index for services - coefficient of variation

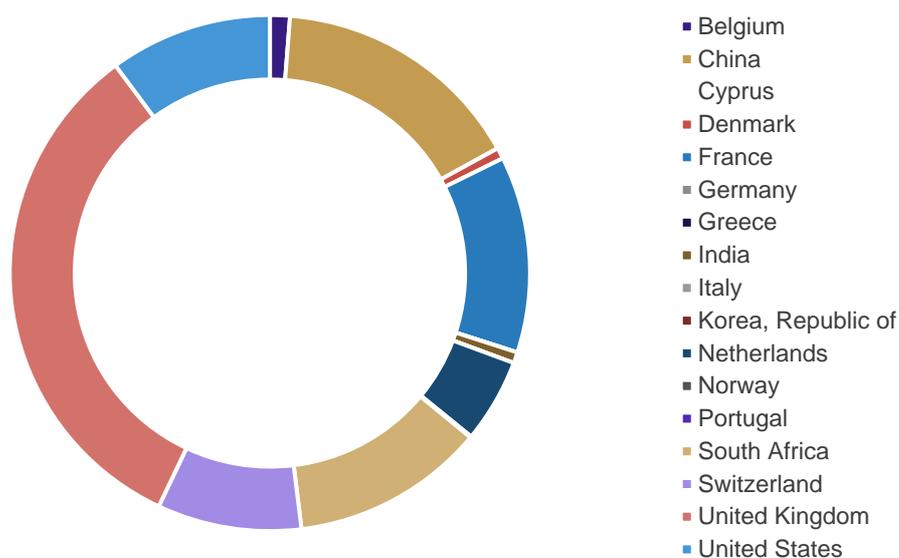
Services	2001-2012 UK	2007-2012 UK	2001-2012 ROW	2007-2012 ROW	Stability Index (2001-2012)	Stability Index 2007-2012
Transportation	41.10	19.93	40.75	16.59	99.15	83.25
Travel	35.11	13.78	35.54	12.07	101.22	87.58
Communications services	52.86	21.95	62.10	27.83	117.47	126.77
Construction	32.23	10.84	36.86	23.10	114.39	213.14
Insurance services	102.35	85.02	71.58	47.53	69.94	55.91
Financial services	65.71	42.28	49.01	15.74	74.59	37.24
Computer and information services	72.58	42.46	60.16	28.89	82.88	68.04
Royalties and license fees	32.59	17.75	56.73	23.28	174.07	131.21
Other business services	44.49	19.64	42.12	17.04	94.68	86.74
Personal, cultural and recreational services	64.56	55.80	54.69	23.35	84.70	41.85
Government services, n.i.e.	40.98	15.38	26.40	10.19	64.43	66.23
Total Services	37.67	15.35	38.37	14.40	101.86	93.77

Appendix 8: FDI stock in Kenya by country

Reporting economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Belgium	-	-	-	-	-	-	-	-	246	354	357	32
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	- 1
China	-	-	26	28	58	46	55	78	120	222	309	403
Cyprus	-	-	-	-	-	-	-	-	1	1	-	-
Denmark	-	-	-	-	11	12	20	-	-	-	17	18
Finland	-	-	-	-	-	-	-	-	-	-	-	- 24
France	122	122	206	52	15	59	430	230	287	263	259	315
Germany	47	60	68	80	31	45	60	61	78	86	79	..
Greece	-	-	-	-	-	-	-	-	1	-	-	-
India	-	-	-	-	-	-	-	-	-	12	12	18
Italy	-	-	-	-	-	-	58	24	38	37	34	-
Korea, Republic of	2	2	2	2	2	2	2	1	1	1	-	-
Netherlands	59	66	61	-	-	-	116	103	87	94	127	135
Norway	-	-	-	2	2	-	- 14	- 1	-	-	-	2
Portugal	3	4	4	-	-	-	-	-	-	16	-	-
South Africa	17	28	12	15	15	27	31	152	194	222	241	309
Switzerland	34	42	77	93	94	118	141	147	161	179	207	230
United Kingdom	426	448	509	460	484	614	663	542	641	742	895	841
United States	..	73	90	178	246	166	189	196	309	308	390	259

Source: UNCTAD FDI/TNC database.

Figure A1: Stock of FDI in Kenya by country



Source: UNCTAD stat.

Appendix 9: Leather value chain case study: Doing Business in Kenya

Leather is a long value chain starting at breeding livestock, slaughtering, tanning of raw hides/skins and leading to manufacturing various finished and semi-processed products (footwear, accessories and other leather goods). Africa accounts for over 21% of the global livestock population, supplying 14% of the world's raw hides but contributing to less than 4% of the total value of leather and leather goods' trading (Mwinyihija & Quisenberry, 2013). Kenya's share is only a small proportion of total African exports and the country has grown to become the second greatest (after Ethiopia) exporter of semi processed hides and skins in the COMESA region and the first main producer of leather goods (excluding footwear) (ibid). Market liberalisation, along with the low purchasing power of the local population, has allowed the second-hand market of footwear (*mitumba*) from Europe, the US and Asia to prosper and, in many cases, outperform local producers. In an effort to curb raw hide exports, the Kenyan government introduced an export tariff of 20% on the value of raw skins and hides in 2006, which was increased to 80% in 2012. This boosted the processing industry by increasing income generation, the number of tanneries and employment (Curtis, 2018). Alongside this, a Kenya Leather Development Council (KLDC) – a coordinating board uniting private and public stakeholders – was set up in 2010, with the clear goal of favouring value addition and forward-integration (Pasquali, 2018). However, despite this, the sector has been unable to expand sales to the UK.

Table A1 depicts that while the hides and skin market, as well as the semi-processed market, is growing, most of the demand is dominated by South-South trade, specifically China. Stricter enforcement of environmental regulations in China make importing Kenyan-produced intermediate goods more attractive, with this confirmed by the increased activity of Chinese buyers in the Kenyan markets of wet blue and crust leathers (Mwinyihija and Quisenberry, 2013). Many of the finished leather products that are exported to Europe (especially the UK) are sold through tourist boutiques or online as niche products (Pasqualli, 2018).

Table A1: Trends in the leather sector

Variables	2006–2011	2012–2016
Products exported	90% processed 10% raw	98% processed 2% raw
Hides and skins		
- Production of hides and skin (million pieces)	8.25	8.65
Processed leather (million sqf)	75 hides 65 skins	90 hides 70 skins
Key markets: hides and skin	International - 80% Local - 20% Major markets: India, Pakistan, China	International - 75% Local - 25% Major markets: India, Pakistan, China
Tanning		
Number of tanneries (in operation)	13	15 – 16
Key markets for wet blue, crust and finished	International (93%) and local (7%) Major markets: China	International (90%) Local (10%) Major markets: Pakistan, China
Footwear		
Number of footwear factories (in operation)	14	15-15
Footwear production (million pairs) ¹³	1.9	2.4
Key markets	Local - 100% Major markets - local population	Local - 98% International- 2% major markets - Local population, minimal to China and Europe
Leather goods		
-Leather good units (in operation) ¹⁴	47	200
Cottage units (in operation)	24	>30
Key markets	Local 100% Major markets – tourist	Local 100% Major markets – tourist
Total earnings from leather and accessories (\$, million)	69	140
Total employment in leather and accessories	16740	22000

Source: Pasqualli (2018); ITC (2018); Mwinyihija and Quiesenberry (2013, p.523) and Mwinyihija (2014). Employment and wages data is from KNBS (2014).

Our analysis in section 3.2.3 suggests leather products are categorised as ‘Sunrise’ products. This holds potential for increasing the sale of finished products, especially footwear and leather goods (i.e. handbags, apparel, belts and wallets). This is underlined by Kenya already being competitive in the manufacture of rubber soles, and can therefore provide finished goods for sale to the UK. The leather sector has seen employment soar in the period between 2012 and 2016, with a increase from 2006 because of nationalist protectionist measures (Mwinyihija, 2014), but

¹³ According to KFMA, there are over 500 footwear producers in the country, 200 of which are located in Kariokor Market. The vast majority of footwear entrepreneurs operate in the informal economy, with little or no machinery. The main types are office shoes, military and safari boots, school shoes and sandals (Pasqualli, 2018).

¹⁴ These are concentrated mainly in Nairobi (60-70 informal workshop in Kariokor Market) and the Malindi coastal region, which alone accounts for more than 300 workshops. Over 90% of these workshops are mini enterprises with fewer than 10 workers, the majority of which are informal (Pasqualli, 2018).

the rise has been fuelled by growth of the informal and MSME sector, rather than the development of large scale firms or factories.

While there is immense potential to export to the UK, several Doing Business indicators need to be improved to increase value addition and to achieve sustainable growth of the sector.

We have used formal World Bank enterprise and innovation survey data (2013) to provide an overarching Doing Business overview of the leather sector in Kenya.

Of the eight leather companies surveyed by TNS Opinion¹⁵ in 2012, four were categorized as large (over 100 employees), while the remaining four were small and medium size firms. These firms were primarily located in Mombasa (3), Nairobi (3) and Nakuru (2). In terms of sales, the average sale came to about \$2 million, with approximately 62% of the sales remuneration from national sales, whilst 7% was sold directly to export markets (vertically integrated) specifically in China and India, and the remaining items exported through arm's length transactions. In terms of ownership, about 82.5% of the leather firms were owned by private domestic individuals or companies, while about 15% were owned by foreign individuals or companies. The table below displays the overall findings in terms of *Ease of Doing Business*.

Table A2: Doing Business indicators in the leather sector

S.No	Doing Business indicators	Minor obstacles (% of total)	Major obstacles (% of total)
1	Labour regulations	37.5%	37.5%
2	Skilled educated workforce	35%	45%
3	Access to inputs for production	25%	75%
4	Access to land	62.5%	25%
5	Access to finance	50%	25%
6	Crime, theft and corruption	50%	45%
7	Customs and regulations	37.5%	45%
8	Lack of innovation ability	35%	55%
9	Lack of downstream growth	20%	70%
10	Competition from informal markets	37.5%	62.5%

Source: calculated from WBES, 2013 (the values may not add up to a 100% in all cases because, some firms did not answer).

A 'minor obstacle' has been defined as those that have can be surmounted easily in-house within the firm or through the firm's networks, while a major obstacle consists of major-severe problems that would need external support from the government, international buyers or other policy actors. For example, the results suggest that over 45% of firms interviewed found it difficult to access a skilled and educated workforce at the time of interview. Digging deeper into Doing Business (DB) indicator 2 (Table A3), the average number of full-time employees stands at around a 100 per firm, however there are almost 50 temporary workers, suggesting a high degree of precarity of the workforce (five months of employment per year). The data, as shown in Table A3, indicates that full-time employees had less than nine years of education during the period studied, while only three of the companies had any kind of training programmes. Furthermore, there was reported difficulty in acquiring proficient managers who were capable of delivering professional management to build the marketing and branding of the firms.

¹⁵ TNS Opinion was hired to implement the Africa 2013 enterprise surveys roll out by the World Bank. In Kenya the local subcontractor was TNS RMS East Africa Limited.

Table A3: Doing Business 2: Indicators for skills and education level of workforce

DB 2: Indicators for skills and education level of workforce	Mean/no.
Full-time employees (no.)	98.7
Temporary employees (no.)	43
Length of employment for temporary employees (months)	4.6
Years of education for full time employees (no.)	8.57
have a formal training program (no.)	3
Percentage of production employees trained	81.6
Percentage of non-production employees trained	21.6
Labour productivity (KES/worker/year)	2746149
Managerial capabilities: years of experience (no.)	24.5
Managerial capabilities: new organisational structures (% of firms)	62.5
Managerial capabilities: innovative management (percentage of firms)	62.5

Source: calculated from WBES, 2013

Unpacking Doing Business indicator (DB) 3 in Table A4 highlights several infrastructural 'bottlenecks', such as major impediments to the growth of the firm. Almost all firms reported issues with power outages, while a few reported issues with water supply. Both were acknowledged as critical to the optimal use of capital capacity utilisation. Even ICT issues were highlighted, such as lack of website utilisation to build the brand downstream or publicise comparative advantages.

Table A4: Doing Business Indicator 3 – Input and ICT issues

Infrastructural bottlenecks and ICT issues	Mean/ no.
Power outages (percentage of firms)	87.5
Number of power outages (per month)	7.8
Insufficient water supply	25
No. of incidents of insufficient water supply (per month)	10
ICT – using websites (percentage of firms)	25
ICT - – owning cell phones and using them for operations percentage of firms)	87.5

Source: calculated from WBES, 2013

When considering Doing Business Indicator 6, crime, theft and corruption were also noted as important factors inhibiting firms' growth and investment, with almost 100% of the firms surveyed finding either minor or major obstacles related to this. The biggest issue was 'kickbacks' or the informal payment required for construction permits, operating licenses and import licences, along with thefts and spoilage occurring midstream in the value chain because of poor logistics.

Another inhibitor to investment reported was the lack of innovation capacity of leather firms (table below). The data in the table below indicate that less than 25% of the firms had any type of standard (which is a key NTB). Furthermore, less than 40% of the firms had invested in any kind of Research and Development (R&D) or product development.

Table A5: Doing Business Indicator 8 – lack of innovation capacity

Innovation capacity indicators	Percentage of firms who innovate
Firm with certification/standard	25
Technology licensed from foreign company	50
Innovations in logistics	50
Innovations in supporting activities for key processes	62.5
Innovations in product development	37.5
Investment in R&D	37.5

Source: calculated from WBES, 2013.

Leather firms also faced downstream value chain issues, with significant inability to develop a brand for Kenya for increased value capture (Doing Business Indicator 9). The current market for exports is low volume and average quality, while the local market is dependent on low quality and low volume. This conundrum requires significant upstream and midstream investment, combined with marketing efforts, for expansion into new markets.

Finally, Doing Business Indicator 10 shows that over 60% of the firms in Kenya reported severe competition from informal markets, eroding their sales. This indicates a need to formalise, modernise and streamline the leather market to ensure that competition can lead to more efficient markets and increased earnings.

Two further issues have also surfaced: the first is the need for the leather value chain to be decarbonised. The sustainability of competitiveness in the long-term comes into question, especially in tannery-linked outputs due to increased pollution. Tanning is the most capital-intensive stage in the value chain and the one that requires the largest investment. In terms of machinery, water processing infrastructure and chemical inputs (Pasqualli, 2018). Currently, the National Environmental monitoring authority has input policies linked to environmental impact assessments. However, there is a need to for a stronger green industrial policy to be put in place, to complement the growth of the leather sectors.

The second issue were more upstream and related to developing the livestock market to overcome the low quality–low volume conundrum. According to the World Bank (2015), a pair of shoes made in Kenya has an average production cost of about \$49.4, compared to \$7.2 in Ethiopia, the regional champion in the footwear industry. The main factors explaining these higher production costs are the price of leather and other inputs, which are in turn a consequence of the lower procuring and tanning costs upstream in the value chain (\$1.60 for a kilogram of hide versus \$0.72 in Ethiopia).

Clearly lack of downstream and upstream linkages, poor innovative push, access to finance, and competition from informal markets are key barriers to improving competitiveness of the sector.

Leather clusters seem to have had almost no benefit to the growth of the Kenyan export market, but under the Big Four agenda, pushing for the developments of SEZs in Machakos could be the answer to Kenya's problem. By ensuring that the SEZ authority is able to address the gamut of the 'Web of Doing Business issues', it will be able to build a robust institutional environment that facilitates exports. With this Kenya can be made as competitive as Ethiopia

Appendix 10: Doing Business Kenya and its competitors

In the World Bank's 2017 Doing Business report, Kenya was shown to have improved its ranking (out of 189 countries) from 106 (in the previous year) to 92. In the last three years, Kenya has simplified its procedures for business creation and the transfer of ownership, also reviewing tax structures and business licenses, and improving access to credit and electricity as part of its 'Vision 2030' strategy. This should have a positive impact on the investment climate. The table below highlights a few critical indicators, drawn from the World Bank Doing business dataset. These elucidate the attractiveness of Kenya vis-à-vis Tanzania and Ethiopia.

Table A6: Comparing Doing Business indicators across Kenya, Tanzania and Ethiopia

Countries	Kenya			Tanzania			Ethiopia		
	2014	2015	2016	2014	2015	2016	2014	2015	2016
Doing Business indicators									
Depth of credit information index (0=low to 6=high) ¹	0	7	7	0	0	8	0	0	0
Ease of Doing Business index (1=easiest to 185=most difficult) ²		113	92		144	132		159	159
Procedures required to connect to electricity (number) ³	4	4	3	4	4	4	4	4	4
Procedures required to start a business (number) ⁴	37.1	37.1	37.4	9	9	9	14	14	14
Strength of governance structure index (0 to 10.5) ⁵	4.7	4.7	4	2.7	2.7	2.7	4.3	4.3	4.3
Strength of investor protection index (0 to 10) ⁶	4.7	4.7	5.3	4	4	4	3.2	3.2	3.2
Total tax rate (% of profit) ⁷	37.1	37.1	37.4	44.3	43.9	43.9	36.6	37.8	38.6

Notes: 1. These rules affect the scope, accessibility and quality of credit information available through either public or private credit. Higher values indicate the availability of more credit information to facilitate lending decisions. 2: A good (low) score on the Ease of Doing Business index shows that the regulatory environment is conducive to the operation of business. 3. The number of procedures required for a business to obtain a permanent electricity connection and supply for a warehouse, lower values are preferred. 4. There are more different activities to legally operate as a firm, such as interactions to obtain necessary permits and licenses. Lower values are better. 5. Number of governance safeguards protecting shareholders from undue board control and entrenchment; 6. This indicates a combination of extent of disclosure index, the extent of director liability index and the ease of shareholder suit index. Lower values are less protected.

Overall, the results suggest that Kenya is a more favourable place to conduct business activities compared to Tanzania and Ethiopia. The country has better depth of availability of credit information, the highest protection to investors and lower total tax rates. However, it also has more cumbersome procedures for starting a business.