

Chapter 14

Regional Trade and Employment in ECOWAS

Erik von Uexkull

International Labour Organization

This study deals with the effects of regional trade in the ECOWAS region on decent employment. The first part analyses the composition of regional versus global trade in terms of its linkages with three dimensions of decent work: Number of jobs, labour productivity, and employment and income security. It argues that regional trade has an important role for all three dimensions, but that effects vary substantially across countries. Following recent trends in international trade literature, the second part looks at firm level data to identify differences in the employment characteristics of domestic firms, regional exporters, and global exporters. It finds that both regional and global exporters are larger, have higher labour productivity, and pay higher wages compared to domestic firms, but are not significantly different from one another in these categories. This means that regional exporters create high quality jobs, but in the context of firm level trade models it also suggests that they continue to face high trade costs which may prevent less productive firms from entering the regional market.

14.1. Introduction^{1,2}

In 2010, Economic Community of West African States (ECOWAS) adopted its “West African Common Industrial Policy”. One of its key objectives is to increase the share of intra-regional trade from currently around 12% of total trade to 40% in 2030, with a vision to “maintain a solid industrial structure, which is globally competitive, environment-friendly and capable of significantly improving the living standards of the people by 2030” (ECOWAS, 2010). This is the latest step in a long history of ambitious attempts for regional integration in West Africa, and it follows a global trend towards regionalisation of trade integration.

The increasing interest in regional integration is often attributed to the disappointing progress of multilateral trade negotiations in the WTO. But there also appears to be a widespread notion that regional trade – in some way – is “better” for developing countries than trade with the rest of the world. For example, the recently published fourth report on Assessing Regional Integration in Africa (African Development Bank, African Union, UN Economic Commission for Africa, 2010) emphasises the importance of regional trade for development and poverty reduction in Africa. At the same time, aid for trade projects are increasingly taking a regional focus, for instance by providing technical support for regional institutions, cross-border transport corridors, and other trade facilitation measures. Undoubtedly, trading with regional neighbours is an important part of a country’s overall trade expansion. But is there indeed something intrinsically different to regional trade compared to trade with the rest of the world in terms of its development potential? If so, what are these differences and how can they be exploited in order to maximise the development impact of trade?

The purpose of this chapter is to shed light on one key aspect of these questions for the ECOWAS region: The contribution of regional trade to the creation of decent jobs. The concept of decent work underlines that beyond the quantity of jobs created, there is also an important quality dimension, which includes (but is not limited to) the productivity of work, the wage earned, and the security of employment. To the extent possible, these qualitative aspects of employment will be considered in the analysis of regional trade in ECOWAS.

This chapter is structured as follows. Section 14.2 gives a brief overview of the history of regional integration in West Africa and the current level of regional trade. Section 14.3 takes a classical trade perspective on revealed comparative advantage. The idea is that comparative advantage can differ for the same country depending on the partner it is trading with, and therefore, the composition of exports may be different for regional than for global trade. This section analyses the differences between regional and global trade composition with respect to their likely impact on key aspects of decent employment creation. Section 14.4 follows a more recent strand of trade literature which, rather than looking at comparative advantage, focuses on

¹ The author is grateful to Marion Jansen for overall guidance of this research project and comments on an earlier draft. Very useful comments and advice from Ian Gillson, Ralf Peters, David Vancetti, Clara Weinhardt, David Kucera, and participants of the conference “Trade, Jobs and Growth in Africa” in September 2011 are also gratefully acknowledged. Valeria Groppo provided excellent research assistance for most of the information presented in section 14.2.

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differences at the firm level to explain exporting behaviour. This section uses World Bank firm level survey data from seven ECOWAS countries to analyse whether and how regionally exporting firms are different from globally exporting firms in terms of their employment characteristics. It also relies on anecdotal evidence collected through structured interviews conducted by the author with exporting firms in Senegal and Benin in 2011. Section 14.5 concludes.

14.2. Background: regional trade in ECOWAS

The ECOWAS region includes fifteen countries in West Africa. It can be sub-divided in two groups: The eight *Union Economique et Monetaire Ouest Africaine* (UEMOA) members (Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo), who adopted the CFA franc as a common currency, and non-UEMOA members Cape Verde, Ghana, Guinea, The Gambia, Nigeria, Liberia and Sierra Leone.

ECOWAS was established in 1975 as a free trade area. In 2000, UEMOA also became a customs union, which was eventually extended to cover all of ECOWAS. However, the actual implementation of both internal liberalisation and the common external tariff has been very slow and many member countries in practice still do not fully comply with their obligations. A particular challenge is the integration of Nigeria, which maintains a very complex tariff structure with high tariff peaks and complete import bans on a number of products.

A number of regional institutions were created to support and govern the regional integration process, including the ECOWAS Commission, Community Parliament, Court of Justice, and the ECOWAS Bank for Investment and Development. Beyond trade policy, additional integration steps were undertaken in a number of areas. For example, in 2004 the cross-border Initiative Programme (CIP) was launched to support projects in areas such as security and conflict prevention, health and education, agriculture, trade and transport. Furthermore, citizens of nine member countries are using the ECOWAS passport, which allows them to travel to any country of the region without a visa.

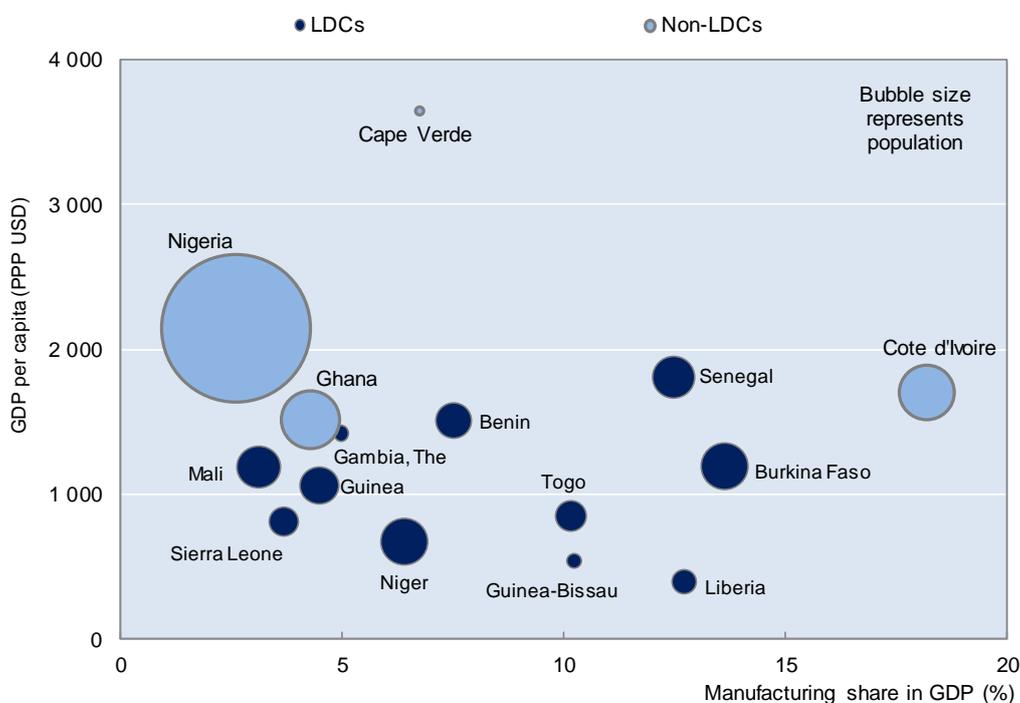
Since the signature of the Cotonou agreement in 2000, ECOWAS countries are also engaged in the negotiations for an Economic Partnership Agreement (EPA) with the European Union. The 2006 formal review of the negotiation process already found a lack of progress and persistent disagreement, especially with respect to the agreement's development provisions and the amount of resources for financial assistance. Given the delays and difficulties in the negotiation process, the European Commission adopted a two-stage approach, asking non-LDC countries to sign 'interim EPAs' limited to trade in goods in order not to lose their privileged market access to the EU (LDCs enjoy duty free market access anyway under the "Everything but Arms" (EBA) initiative). Of the four non-LDC members, Ghana and Cote d'Ivoire signed an interim EPA while Nigeria fell back to less favourable EU market access under the Generalized System of Preferences (GSP). Cape Verde, after its graduation from LDC status in 2008, obtained an extension of EBA until the end of 2011. It has now been approved for EU market access under GSP+, a special market access status granted by the EU to developing countries that commit to international standards on human and labour rights, as well as environmental protection and good governance.

Critics argue that the EPA process can have a negative impact on regional integration by further complicating the negotiations, imposing deadlines and procedures that are not appropriate for the regions' characteristics (d'Achon and Gerard, 2010) (Gonzalez, 2007). Arguably, the introduction of reciprocal free trade with the European Union before the consolidation of the regional market also carries the risk of 'diverting' trade from regional

markets to EU markets (d'Achon and Gerard, 2010). ECOWAS members have therefore declared that they see progress with regional integration as a prerequisite for the implementation of an EPA with the European Union (ECOWAS, 2005).

As illustrated in Figure 14.1, ECOWAS members are a rather heterogeneous group of countries. Nigeria is by far the largest member both in terms of its population and its economic weight. Per capita GDP (PPP) in the region ranges from USD 396 (Liberia) to USD 3 650 (Cape Verde). With the exceptions of Cape Verde, Nigeria, Ghana, and Cote d'Ivoire, all ECOWAS members are classified as Least Developed Countries. In terms of economic structure, only a few member countries have developed sizeable manufacturing industries, while most others depend primarily on agriculture, services, and – in some cases – oil and mineral extraction. Mali, Niger, and Burkina Faso are landlocked, while all other member countries have access to the sea, although port infrastructure is not well developed in some of them. Cape Verde is a small island economy.

Figure 14.1. Size and economic structure of ECOWAS members



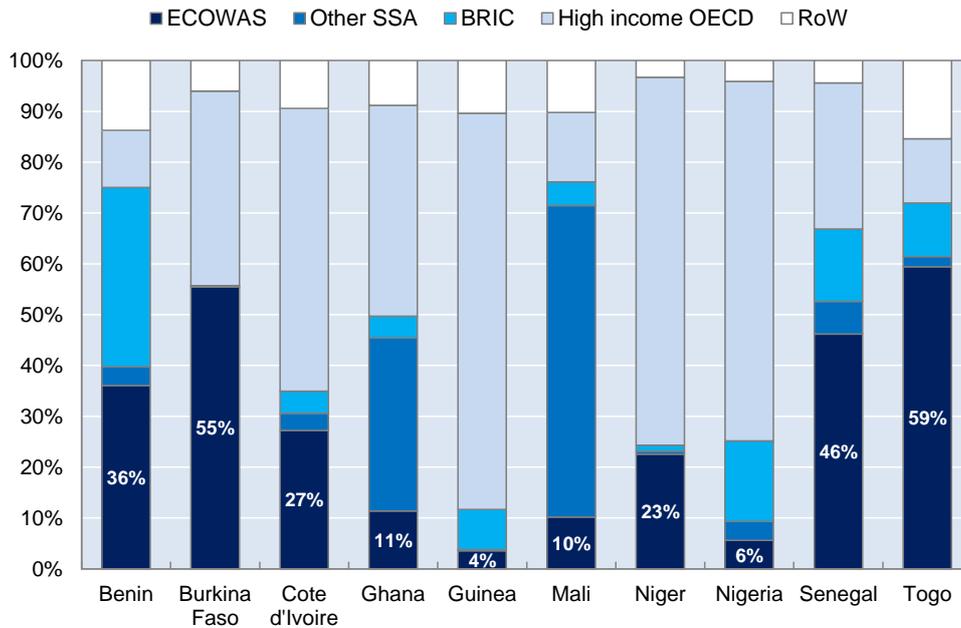
Source: All data from World Bank, World Development Indicators.

Despite the above described political efforts, the share of regional trade in ECOWAS has remained more or less constant at a rather low level over the past two decades (between 10% and 15% of total exports go to regional markets with some fluctuation, but no clear trend)³. However, this aggregate figure is very much dominated by Nigeria's heavy weight in the regions total exports. These consist mainly of oil and are to a large extent directed to the global market. For other member countries, regional trade plays a much more important role. Figure 14.2 shows export shares by destination for all ECOWAS countries with data availability in the COMTRADE database between 2004 and 2008. Calculations are made over the average for all years with available data in order to get a consolidated trend and reduce the impact of

³. Author's calculation based on COMTRADE data.

short term fluctuations. Data for 2010 is not yet available for most countries, and 2009 was excluded as an outlier given the impact of the global economic crisis on trade during that year. A few product groups that comprise mainly re-exports of (sometimes used) goods are omitted from the calculations in order to reduce distortions through non-domestically produced goods to the extent possible⁴. The same trade data is underlying all graphs presented in section 14.3.

Figure 14.2. Export shares by region for ECOWAS countries



Source: Author's calculation based on data from COMTRADE.

In this breakdown, only Nigeria and Guinea have single digit shares of exports to ECOWAS. For other countries in the region, this ratio can be as high as 59% (Togo), 55% (Burkina Faso), or 46% (Senegal). The remainder of the paper is dedicated to the analysis of the employment effects of this regional trade, compared to trade with other parts of the world, and thus attempts to give an estimate of the potential for enhanced regional trade to contribute to the creation of decent jobs in the region.

⁴ The omitted product groups are the following two digits chapter from the 2002 UN Harmonized System:

- HS84 - Nuclear Reactors, Boilers, Machinery And Mechanical Appliances; Parts Thereof
- HS85 - Electrical Machinery And Equipment And Parts Thereof; Sound Recorders And Reproducers, Television Image And Sound Recorders And Reproducers, And Parts And Accessories Of Such Articles
- HS86 - Railway Or Tramway Locomotives, Rolling-Stock And Parts Thereof; Railway Or Tramway Track Fixtures And Fittings And Parts Thereof; Mechanical (Including Electro-Mechanical) Traffic Signalling Equipment Of All Kinds
- HS87 - Vehicles Other Than Railway Or Tramway Rolling-Stock, And Parts And Accessories Thereof
- HS88 - Aircraft, Spacecraft, And Parts Thereof
- HS89 - Ships, Boats And Floating Structures
- HS90 - Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical Or Surgical Instruments And Apparatus; Parts And Accessories Thereof
- HS93 - Arms And Ammunition; Parts And Accessories Thereof

14.3. The classic trade perspective: regional vs. global comparative advantage and linkages with employment

Classic trade perspective

In a classic Heckscher-Ohlin perspective on trade, a country's export composition is determined by its comparative advantage, which in turn depends on its factor endowments relative to that of its trading partners. Thus, comparative advantage of a given country may vary depending on the trading partners' factor endowment. This would imply that the product composition of regional trade can be quite different from that of global trade, with potential repercussions on its impact on employment.

The 2011 World Trade Report (WTO, 2011) analyses the issue of product composition differences between regional and global trade empirically across broad categories of products (manufactures, parts and components, other). It concludes that while there does not appear to be a general global pattern, many regional trading areas reveal substantial differences in product composition between global and regional trade. For instance, the share of intra-regional trade within the Andean community is found to be much higher for manufactures than for other export products. ASEAN is found to have a particularly high share of intra-regional trade for parts and components. The numbers presented for ECOWAS suggest that intra-PTA trade accounted for 8%⁵ of total exports of member countries, but 38% of their manufacturing exports and 32% of exports in parts and components.

A number of empirical studies have investigated the impact of regional trade on product composition and its economic and social impacts in more depth for other regions of the world. For example, (Kweka and Mboya, 2004), in a case-study of Tanzania, find that regional integration within SADC and EAC led to an increase in trade and that regional trade had a higher anti-poverty impact as it involved the poor more directly by providing them employment and sales opportunities. For Bolivia, (Nina and Andersen, 2004) find that the export profile shifted from global markets towards the Andean Community and MERCOSUR partners, and at the same time export composition changed from minerals towards vegetable fats, foods and beverages. This supported the diversification of the country's export portfolio. (Sanguinetti, Siedschlag and Martincus, 2010) find evidence that regional integration in MERCOSUR reshaped manufacturing production structures according to regional comparative advantage.

On the theoretical side, (Venables, 2003) argues that specialisation will occur according to regional rather than global comparative advantage as a consequence of regional integration. He points out that this can lead to divergence in terms of the economic structure between regional trading partners, with industrialisation only in the more advanced ones. (McLaren, 2002) points out that preferential liberalisation within a region is likely to induce investment decisions that result in specialisation towards trade with regional partners (which may pose an obstacle to multilateral liberalisation). Both arguments are consistent with the idea of differences in product composition between global and regional trade, and add a dynamic perspective on the interaction between regional integration and comparative advantage.

Annex 14.A1 presents a breakdown of ECOWAS members' exports by destination region and broad product categories. It confirms the findings of the above described literature in the sense that for most countries, the composition of exports to ECOWAS partners is quite different

⁵. These figures are based on 2007 data from COMTRADE. Due to differences in country coverage and statistical methods applied for cleaning the data, they are not fully consistent with the COMTRADE data presented in this paper.

to that of exports to other African countries (other SSA), major emerging markets (BRIC = Brazil, Russia, China, India), high-income OECD countries (hiOECD), and the rest of the world (RoW). The main exception here is Nigeria, whose exports to all regions are strongly dominated by crude oil. This being said, there does not appear to be a clear-cut pattern across countries in terms of what is exported regionally and what is exported globally.

For some countries, the share of manufactured goods is substantially higher among ECOWAS exports than among exports to global markets:

- Benin exports manufactured Food, Beverages and Tobacco (including substantial amounts of cigarettes) and some construction materials (mainly steel and cement) to ECOWAS, while exports to BRIC and RoW consist mainly of agricultural products (Cotton, some cashew nuts).
- Cote d'Ivoire exports mainly refined petroleum products⁶ to ECOWAS. Exports to hiOECD comprise agricultural (cocoa), mining (crude oil) and food products (cocoa butter).
- Ghana exports manufactured wood, plastic and textile products to ECOWAS. Exports to other SSA are dominated by semi-processed gold to South Africa. Exports to other regions comprise a large percentage of traditional agricultural exports, mainly cocoa.
- Senegal exports refined petroleum products, construction materials (steel and cement) and food products to the ECOWAS region. Exports to BRICs are dominated by refined petroleum products, while exports to hiOECD comprise mainly fish and other seafood.
- Togo, the country with the highest share of intra-ECOWAS exports (59%), exports construction (steel and cement) and packaging material as well as some food products (margarine, flour, mineral water) to ECOWAS. Export to other regions comprise mainly agricultural (cotton, cocoa) and mining (phosphates) products.

On the other hand, a number of ECOWAS countries have higher shares of agricultural and fishery products among their regional exports than among their global exports:

- For Burkina Faso, exports to all regions are dominated by one agricultural product, cotton. Exports to ECOWAS also comprise a few food and tobacco products (cigarettes, sugar, vegetable oil), while hiOECD also contain some semi-processed gold.
- Guinea has very low regional exports, about half of which are in fish. Exports to other regions are dominated by aluminium and gold in different degrees of processing.
- For Mali, agricultural products (live animals) are the main export items to ECOWAS. Agricultural products (in this case, mainly cotton) also play an important role in its export portfolio to BRIC, hiOECD and RoW. The main export item, however, is semi-processed gold, which is exported to South Africa and hiOECD.
- Niger exports agricultural products (live animals, onions) to ECOWAS and uranium ore and semi-processed gold to hiOECD.

The following sections of this chapter analyse how the compositional differences in regional versus global trade are related to various aspects of decent work.

⁶ The classification used for these statistics follows the ISIC Rev.2 industrial classification, which categorises refined oil as a manufactured product while crude oil is classified as a mining product. It should be cautioned though that a substantial share of the value added in export products in this category is likely to be constituted by the value of the mineral, not by the additional processing step of refining.

Employment intensity

This section compares regional to global export composition in terms of direct employment effects, to the extent possible given the scarcity of employment data for the region. Obviously, such a comparison misses out on important secondary effects through intermediate inputs, as well as income induced effects. For a thorough analysis of these effects, country specific work in the framework of a multiplier or CGE model would be highly desirable. However, in the case of many ECOWAS countries, this is still prevented by a lack of reliable data. For the purpose of this paper, the analysis of export composition by employment intensity is therefore restricted to a comparative perspective on direct employment effects. This is a useful short-term measure of the impact of different types of trade on the labour market, but it misses out on the quality of the jobs created. This will be addressed in the following sections of this paper.

Detailed country specific data on the employment intensity of output by industry is not available for most ECOWAS countries⁷. Therefore, global vs. regional export composition is classified in terms of the industry specific labour cost share (labour costs / total cost), which can be extracted from a Social Accounting Matrix (SAM). This measure depends not just on employment intensity, but also on the level of wages in a given industry. It should be interpreted as a general measure of how much of the value generated by a given sector accrues to wage earners. It does not contain any information on the distribution of wages. This dimension is only introduced indirectly through the breakdown between skilled and unskilled labour.

SAMS are available from the GTAP database for Nigeria and Senegal, as well as for the rest of West Africa combined. The latter is based mainly on weighted averages between the Nigerian and Senegalese data. As the purpose of this exercise is to classify and compare the structure of trade according to employment intensity rather than a cross-country comparison of production technology, the average labour cost shares across the three SAMs are used for all countries. While this may be less accurate for each specific country, it does ensure comparability of results across countries in the sense that differences will only be determined by the export structure. The SAMs break the economy down into 58 sectors, and for each sector provide a figure on total output, as well as on the input costs for skilled and unskilled labour. By matching this indicator with the industry composition of exports to different destinations, the data underlying Figure 14.3 is calculated, which shows the share of skilled and unskilled labour costs in exports to each destination⁸.

Figure 14.3 illustrates that the labour cost share for exports to ECOWAS is quite heterogeneous across countries in the region. Seven out of ten countries have a labour cost share (skilled and unskilled) of exports to ECOWAS below 10%, and in most cases substantially below the mean for exports to all regions. However, the remaining three countries – Niger, Mali, and Burkina Faso - have a wage share in exports to ECOWAS of more than 40%, and way above their average for all regions. The main driver of these differences is the fact that wage shares in output are far higher in agriculture than in any other activities (see wages shares by sector reported in Annex 14.A2). This explains the high wage share for exports from Mali,

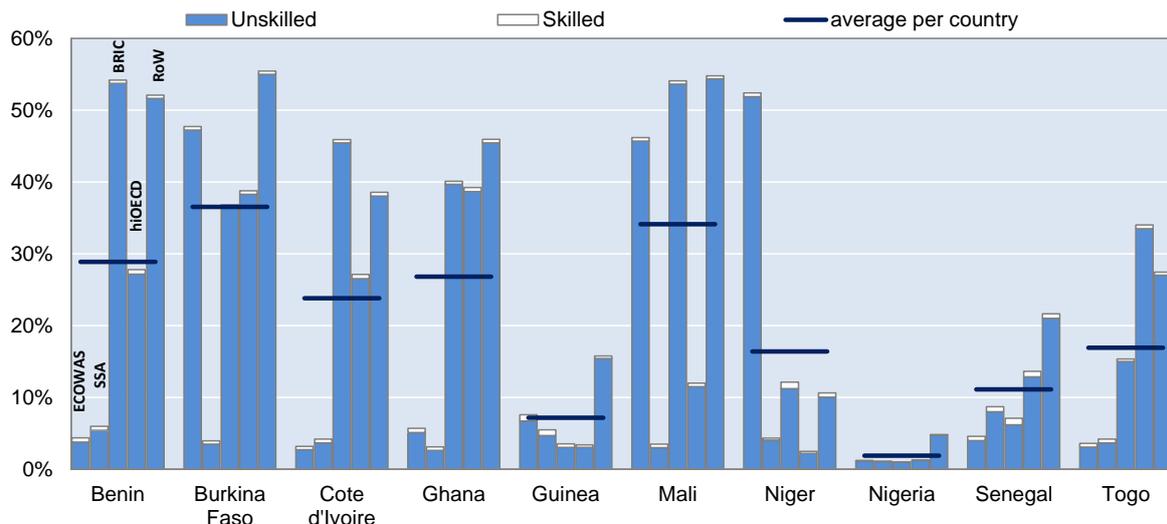
7. While the UNIDO Industrial Statistics Database covers a number of ECOWAS countries, it only covers manufacturing sectors and thus does not allow a comparison with agricultural and mining activities in terms of the employment intensity of sales.

8. The export labour cost share of exports by country i to destination j $ELCS_{ij}$ is thus calculated as follows, where LCS_g is the labour share (labour cost/output) for GTAP sector g (58 sectors in total), $X_{i,j,g}$ are exports by country i to destination j in sector g , and $totalX_{i,j}$ are total exports of country i to destination j :

$$ELCS_{ij} = \sum_{g=1}^{58} \left[\frac{X_{i,j,g}}{totalX_{i,j}} * LCS_g \right]$$

Niger and Burkina Faso, whose regional exports are dominated by agricultural products. On the other hand, manufacturing products tend to have much lower wage shares, which explains the low average wage share of regional exports for countries like Benin, Cote d'Ivoire, Ghana, Senegal and Togo, whose exports have a higher share of manufactures. The very low wage share of Nigeria's exports to all regions is explained by the low wage share for oil extraction, an illustration of the often mentioned jobless growth that is associated with commodity exports. This also applies to Guinea.

Figure 14.3. Average share of skilled and unskilled labour cost in exports by destination region



Source: Author's calculation, based on trade data from COMTRADE and GTAP.

The results illustrate that the direct employment effects of an expansion in regional trade are likely to differ substantially across the region. Agriculture exporters are likely to experience a much more substantial immediate employment effect from regional trade than countries with a regional comparative advantage in manufactures or mineral fuels. The flipside of high labour intensity in agriculture is often found to be very low labour productivity. Thus, while expansion of regional trade would have stronger employment effects than global trade in these countries, the jobs created are likely to be rather low-wage. Policies and programmes that promote agricultural productivity would in these cases be appropriate complementary measures to expanding regional trade.

In the short run, regional trade is likely to lead to the creation of fewer, but more productive jobs than global trade in regional exporters of manufacturing products such as Benin, Cote d'Ivoire, Ghana, Senegal and Togo. The labour cost share in manufacturing is not just determined by a higher capital/labour ratio, but also by more intensive use of intermediate inputs, and thus a lower share of value added per unit of sales. However, to the extent that intermediate inputs are produced domestically, they will have additional indirect employment effects. As mentioned above, it would be highly desirable to analyse these based on country specific multiplier effects in a SAM framework.

Employment intensity is generally very low for mineral exporters such as Nigeria and Guinea. Both countries have very low shares of exports to ECOWAS. For these countries, significant efforts to promote export diversification in more employment intensive sectors will be necessary for trade to contribute more significantly to decent work creation. Exploring

potential areas of regional comparative advantage and promoting regional integration could be an important part of an employment friendly export diversification strategy.

Prospects for productivity growth

This section applies a more dynamic lens to look at another key aspect of decent work: labour productivity. It analyses trade composition according to a measure of its potential to contribute to productivity growth. Previous research has argued that some export products have higher prospects for long term growth than others because they have more potential to increase productivity. For example, (Sachs and Warner, 1997) find that natural resource exports are associated with slower growth than other products. (Hausmann, Hwang and Rodrik, 2007) argue that the productivity growth prospects are higher for countries that export “rich country” goods (defined as products exported mainly by countries that are now rich). Based on this assumption, they construct a measure called PRODY which is defined as the average per capita GDP (PPP) of countries exporting the product, weighted by their share in total exports of this product. They present evidence that a higher average PRODY of a country’s exports is associated with faster productivity growth in the future.

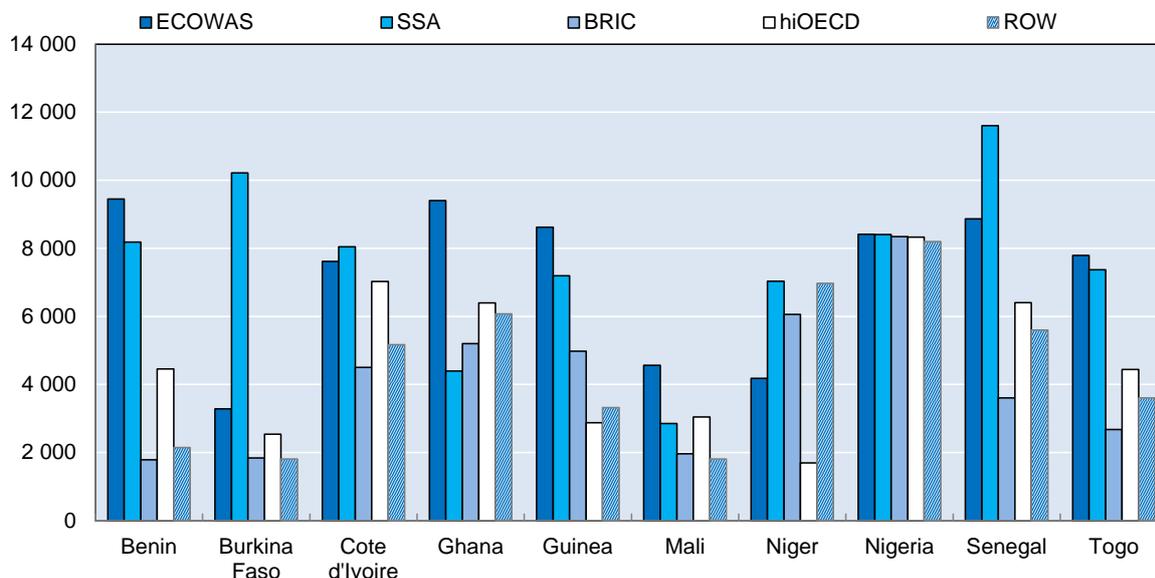
The PRODY approach has been criticised by other authors, namely for its failure to account for cross-country differences in product quality (Xu, 2007) (Minondo, 2010) and international production networks (Newfarmer, Shaw, Brenton, and Walkenhorst, 2009). (Harrison and Rodriguez-Clare, 2010) also argue that the PRODY measure may be rather noisy because it also reflects capital intensity of exports and is thus correlated with any exogenous conditions that favour the accumulation of capital. While these factors may create considerable problems for comparisons across heterogeneous countries and in the presence of sophisticated transnational production networks, it should not have a substantial effect on the within country comparison of exports to different destinations undertaken in this paper.

Figure 14.4 shows the weighted average PRODY for exports of ECOWAS countries by destination region. For Benin, Ghana, Senegal, and Togo, who export mainly manufacturing products to the ECOWAS region, PRODY scores on regional exports are quite high and substantially above those for global exports. To some extent, a similar pattern can also be observed for Cote d’Ivoire.

For agricultural exporters Niger, Mali and Burkina Faso, the overall PRODY levels are lower, but the PRODY values for exports to ECOWAS are again higher than those to hiOECD. This is partially explained by the relatively high PRODY on exports of live animals. Burkina Faso exhibits a very high PRODY for export to other SSA, but these exports are very close to zero in value. Similarly, Niger has high PRODYs, but very low export values for other SSA, BRIC and RoW. For Mali, PRODY values for exports to ECOWAS are also substantially higher than to other regions.

The PRODY methodology attaches a rather high value to crude oil because it is exported by a number of countries with high per capita GDP. This also explains the rather high average PRODY for Nigeria’s exports. Given the past experience of oil and other mineral exporting countries in Africa, it seems questionable whether the high PRODY value for these products is justifiable in terms of their contribution to overall productivity growth. Guinea’s metal exports to BRIC, hiOECD and RoW lead to a relatively low PRODY. Part of the reason for the high PRODY in Guinea’s exports to the ECOWAS region, which are quite low in value, is the high PRODY for fish.

Figure 14.4. Average PRODY values of exports by destination region



Source: Author's calculation, based on trade data from COMTRADE and PRODY dataset from Dani Rodrik's Harvard homepage.

The PRODY levels for regional exports vary substantially across countries and are typically higher for regional exporters of manufactures than for agricultural exporters. However, the analysis presented here suggests that for most ECOWAS countries, regional exports have relatively higher potential to contribute to productivity growth than exports to other main destinations, and thus an expansion of the regional trade share is likely to promote the creation of higher quality jobs.

In some cases, the PRODY results seem to almost mirror inversely the results for direct employment effects. This points to a common problem in dealing with questions of industrial development and structural change in developing countries: A potential short-term trade-off between high employment intensity in agriculture and higher labour productivity and productivity growth potential in manufactures. Both are important development aims, and a successful development strategy will need to find the right balance between promoting enhanced productivity in agriculture and at the same time developing manufacturing sectors. Understanding and exploiting the potential of regional trade can play an important role for both aims.

Export diversification

To conclude the analysis of regional trade composition and its linkages with employment, this section reviews the significance of regional trade for another key aspect of decent work: job and income security. The global economic crisis of 2008/9 has demonstrated that trade can act as a transmission channel of economic shocks with strong repercussions to the labour market, especially for those without access to adequate social protection (Jansen and von Uexkull, 2010). A large body of literature argues that in order to better shield themselves against such shocks, developing countries need to diversify their exports (Lederman and Maloney, 2007) (Hesse, 2009) (Jansen, 2004) (Malik and Temple, 2006) (Haddad, Saborowski and Lim, 2010). This section therefore discusses the contribution of regional trade to export diversification in the ECOWAS region.

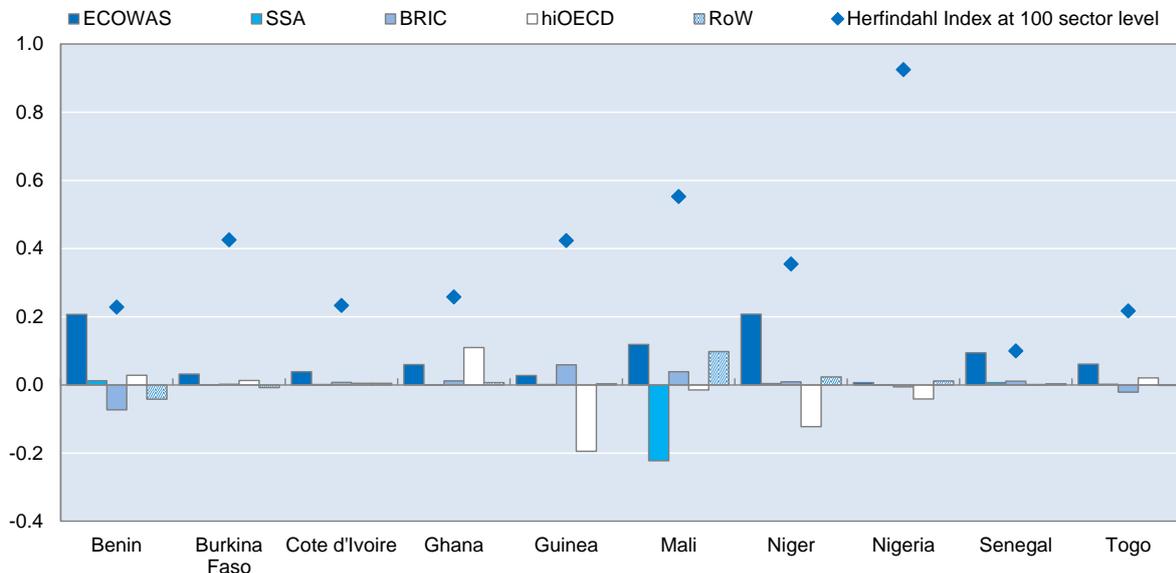
A standard way to measure export diversification is to calculate a Herfindahl index. This index is defined as the sum of squares of the share of each product exported in total exports. This number would be equal to one for a country that exports only one product, and will approach zero if exports are split very evenly among a very high number of products⁹. Figure 14.5 presents the Herfindahl indices for ECOWAS countries, as well as a measure of the contribution of each destination region to export diversification. The bars represent the hypothetical change in the Herfindahl index if exports to the respective region were to be removed from the data. Thus, a high bar indicates that exports to a region make an important contribution to export diversification; if exports to this region were removed, the overall Herfindahl index would be substantially higher. The magnitude of this indicator is determined mainly by two factors: First, the level of diversification within exports to that region, and second, the complementarity of exports to the region with exports to the rest of the world. This measure can be negative if exports to a certain region are very concentrated in a few sectors, indicating that the overall export portfolio would be more diversified if exports to that particular region were dropped from the calculation.

Figure 14.5 shows substantial variation in the degree of export diversification. Nigeria has by far the highest Herfindahl index, which is not surprising given its strong concentration on oil exports. Guinea also has a relatively high concentration index, and so do primarily agricultural exporters Burkina Faso, Mali and Niger. Regional exporters of manufactures (Benin, Cote d'Ivoire, Ghana, Senegal, Togo) are more diversified.

The comparison of regional contributions to export diversification shows unambiguously that regional exports increase the level of diversification, and quite strongly so in most cases. Except for Ghana, Guinea and Nigeria, the contribution to export diversification of exports to the ECOWAS region is higher than for exports to any other region. The largest contributions are for Benin, Mali, Niger, and Senegal. Thus, regional exports contribute substantially to economic diversification in most ECOWAS countries. This is the case for both manufacturing and agricultural exporters. Export diversification is likely to enhance these countries' resilience against economic shocks, increase their growth prospects, and reduce the exposure of workers to job and income insecurity.

⁹. A crucial factor in calculating the Herfindahl index is the level of product aggregation of the underlying data: A Herfindahl index calculated across the close to 6 000 products of the six digit level of the Harmonized System (HS) will measure something very different than the same index calculated across more aggregated industrial sectors. Differences will arise in particular for countries that export a high number of products (low Herfindahl at HS6 level) that fall into just a few sectors (high Herfindahl at sectoral level). Both can be interesting, and there is no clear-cut better or worse: The question is whether one is more interested in developing new products within similar sectors, or progress in developing entirely new industries. For this note, a middle ground is used and the Herfindahl index is calculated over the 100 industrial sectors of the 2 digit level of the Harmonized System. This means that, for instance, all cereals fall into the same product group, but are separate from other agricultural products. There are a few different categories for textiles of different degrees of finishing (plus one for footwear and one for headwear), but for example no differentiation between shirts, pants, or coats.

Figure 14.5. Herfindahl index of export concentration and contribution of different regions to export diversification



Source: Author's calculation, based on trade data from COMTRADE.

14.4. A “New New Trade Theory” approach: firm-level employment characteristics of regional exporters

Heterogeneous firm models

In a seminal paper, (Melitz, 2003) proposed a trade model that, instead of focusing on comparative advantage, introduces heterogeneous firms and focuses on differences between exporters and non-exporters at the firm level. In Melitz' dynamic industry model, only the most productive firms find it profitable to become exporters while less productive producers remain in the domestic market due to fixed costs of exporting. Subsequent extensions of the model that have introduced labour market frictions and search costs (e.g. Helpman, Itskhoki, and Redding, 2010) explain the often observed empirical finding that exporters tend to be larger, more productive, and pay higher wages than non-exporters (e.g. Bernard and Jensen, 1999; Seker, 2009).

Recent extensions to Melitz type models suggest that firm level characteristics may differ depending on the type of export markets they serve. For example, in (Helpman, Melitz and Rubinstein, 2008), export markets can differ in terms of trade costs. The higher the trade costs to access a specific market, the higher is the threshold for firm productivity above which market entry is still profitable. Empirically, (Eaton, Kortum, Kramarz and Sampognaro, 2011) observe that the wage premium for French firms increases significantly with the number of markets a firm exports to, and with exporting to more remote markets.

The above described findings suggest that regional exporters may differ from global exporters in terms of size, productivity and employment characteristics. If for some reason regional trading costs were lower (e.g. due to proximity, common language, preferential markets access), one would expect that less productive firms may find it profitable to export regionally, but not globally. In the framework of the above mentioned papers, this would imply for regional exporters to fall in between domestic firms and global exporters in terms of size, productivity,

and wages. It would also imply that even within the same industry, employment effects of regional trade may differ from employment effects of global trade.

Empirical application to ECOWAS

In order to empirically analyse potential differences between regional and global exporters, a pooled firm level dataset for ECOWAS countries is constructed with data from the World Bank's Enterprise Surveys. Comparable firm level data is available for seven ECOWAS countries, with the surveys carried out between 2007 and 2010, as shown in Table 14.1. This leads to a sample of 2 815 firms, although response rates vary for different parts of the survey.

The survey covers both manufacturing and services firms, including micro enterprises, but no mining or agricultural companies. Sample size varies between countries, with larger economies showing a larger sample size. The surveys are typically stratified by industries, and weights are provided that are also meant to control for non-response. However, it is not clear whether the weighting method is suitable for cross-country comparisons. Furthermore, some observations receive weights up to 237 times the minimum weight, which creates substantial problems with outliers if the weights are applied. Therefore, the summary statistics below were calculated with unity weights for each observation. This implies that the sample is not representative of the underlying economies in terms of the distribution across industries and any potential sampling bias arising from non-response. However, the results are valid as a comparison of companies based on their exporting characteristics within this subsample of the seven economies.

Table 14.1. Pooled World Bank enterprise survey data

	Year	Number of purely domestic firms	Number of exporting firms	Number of indirect exporters	Total number of firms
Benin	2009	120	14	16	150
Burkina Faso	2009	341	23	28	392
Côte d'Ivoire	2009	485	20	20	525
Ghana	2007	541	26	49	616
Mali	2010	296	36	26	358
Niger	2009	122	18	9	149
Senegal	2007	558	40	27	625
Total		2 468	177	175	2 815

Source: Author's calculations based on World Bank Enterprise Survey Data.

Based on their survey responses, firms can be classified according to their exporting status. The survey contains information on the share of total production that is sold domestically, exported through intermediaries, or exported directly. All companies with more than 0% of directly exported sales are classified as exporters. While this may appear a rather generous definition, it is consistent with the theoretical framework presented above that assumes that firms have to overcome a fixed cost to enter export markets. Once this investment has been made and a share of production – even if it is small – is exported, the firm is classified as an exporter. On the other hand, a firm that exports only indirectly may be able to avoid making these upfront investments itself by exporting through a larger supplier and is therefore not classified as an exporter. However, results for these indirect exporters are shown separately from results for purely domestic firm in the following analysis. As shown in Table 14.1, this

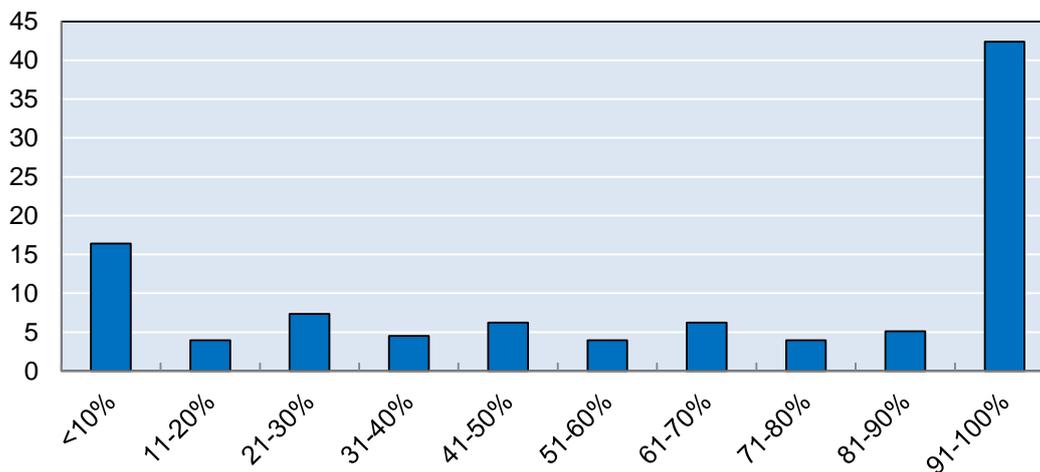
splits the total sample of 2 815 firms into 2 463 purely domestic firms, 177 direct exporters, and 175 firms that only export indirectly.

The exporting firms in the sample are subdivided once more into regional and global exporters. This classification is based on a question in the survey that asks firms what share of their exports goes to “neighbouring countries within Sub Saharan Africa”. Obviously, this is an imperfect definition of regional trade and possibly subject to some differences in interpretation among respondents. If it is interpreted strictly, this definition would not classify all within-ECOWAS trade as regional because not all member countries share a border. On the other hand, it may also include exports from Senegalese firms to Mauritania and from Niger to Chad, which are not ECOWAS members. Mali and Niger also share a border with Algeria and Niger with Libya, but neither is classified as a Sub Saharan country, so these exports should not be included. In any case, the classification of regional exports remains rather conservative and probably does not cover all ECOWAS trade, but gives a reasonable sample of firms whose exports are restricted to the geographical proximity of their home country.

The distribution of firms based on their regional export share is shown below in Figure 14.6. Over 40% of exporting firms in the sample have a regional export share above 90%. These firms are classified as regional exporters, and all others as global exporters. The rationale for this rather low cut-off line is similar to that for the classification of exporters vs. non-exporters and lies in the theoretical foundation that once a firm has overcome the costs of exporting beyond the boundaries of the region (even in small quantities) it can be considered a global exporter.

The global exporters are distributed rather evenly between different shares of regional versus global exports, except for a significant clustering around the other extreme of the distribution of firms whose exports are destined entirely outside of the region. The clustering of firms at the extremes of the distribution indicates substantial segmentation between regional markets and the rest of the world.

Figure 14.6. Distribution of exporting firms in the sample by regional export share (n=177)

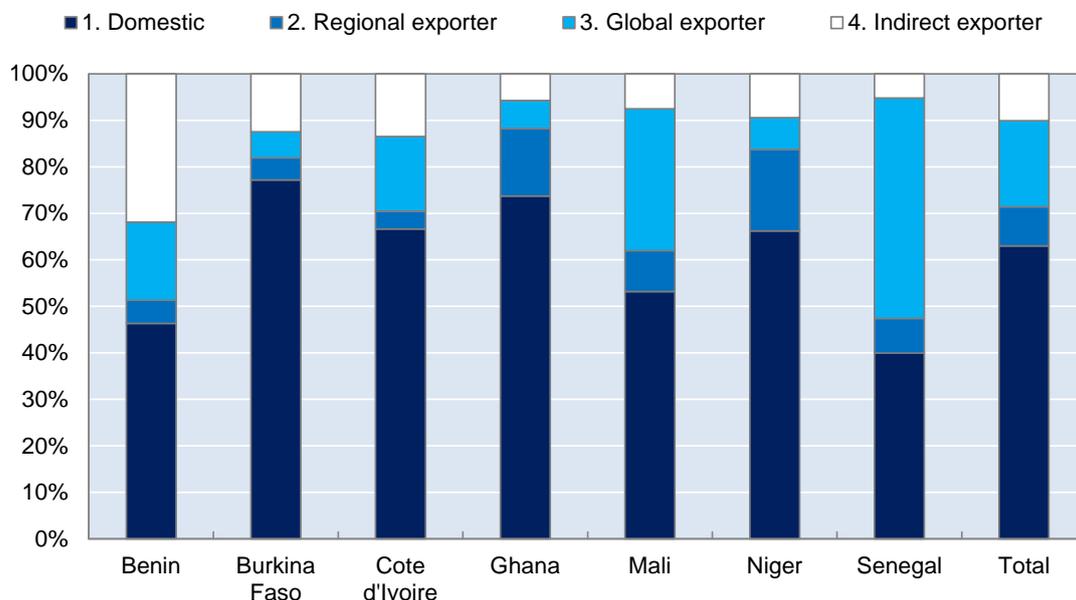


Source: Author's calculations based on World Bank Enterprise Survey Data.

Figure 14.7 shows the distribution of firms in the sample by category across countries. For all countries, purely domestic firms are by far the largest group, ranging from 80% (Benin) to 92% (Cote d'Ivoire). Regional exporters only account for a relatively small share of total firms, but there is substantial heterogeneity between countries, ranging from 1.5% (Cote d'Ivoire) to

7.4% (Niger). These findings are consistent with the underlying theoretical framework of entry costs into exporting, which restricts most firms to their home market.

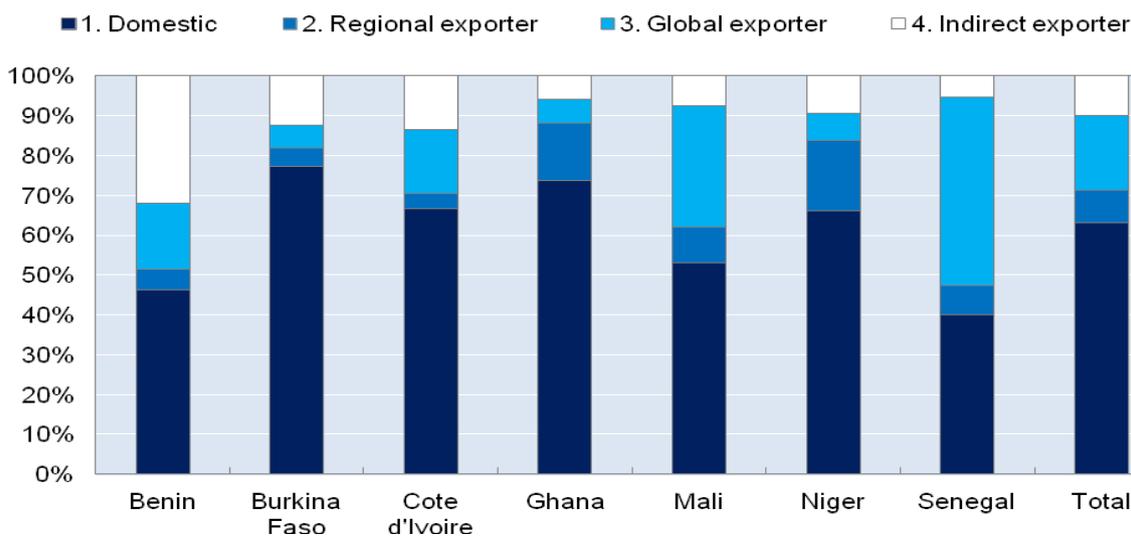
Figure 14.7. Firm type distribution by country



Source: Author's calculations based on World Bank Enterprise Survey Data.

Despite their relatively small numbers, exporting firms account for a significant share of employment in all countries. Figure 14.8 shows that the share of employment within the sample in purely domestic firms ranges from 40% (Senegal) to 77% (Burkina Faso), and firms classified as regional exporters account for between 4% (Cote d'Ivoire) and 17% (Niger) of employment by firms in the sample.

Figure 14.8. Employment distribution by firm type and country



Source: Author's calculations based on World Bank Enterprise Survey Data.

To the extent possible, the data was cleaned from obvious outliers. Two observations with extreme values for employment were removed from the sample for the calculation of these and all following statistics. In both cases, firms reported employment above 100 000 three years before the survey and less than 100 in the survey year. Remaining employment statistics were reviewed thoroughly and do not appear to be affected by obvious outliers. The single largest employer after removal of the above mentioned firms has 3 000 employees.

Unfortunately, data consistency is much weaker for sales and other accounting statistics reported by firms. In this case, five extreme values were removed. Nevertheless, some values remain questionable due to large discrepancies between sales reported for the survey year and the value reported for three years before or impossibly high or low values for sales/worker. The standard treatment for this problem in the literature is to construct averages over the log of the figures, which greatly reduces the weight given to extreme values in the calculation of the mean. This has two advantages: First, it reduces the noise resulting from very high values that are due to data entry or other errors. Second, it produces summary statistics that are more representative of the typical firm in the distribution and less influenced by few very large firms. Given that the sample combines firms of very different sizes, this is desirable for obtaining representative results. For easier readability, the log was reversed after calculation of the averages presented in the next section. This is what the expression ln-average refers to in the titles and explanations of subsequent figures¹⁰.

Firm level characteristics

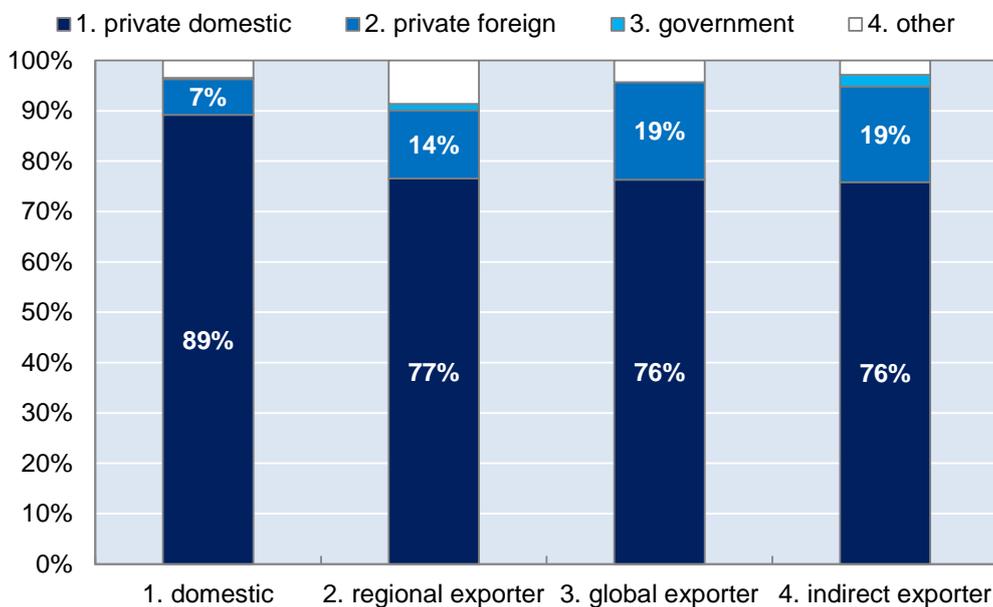
Figure 14.9 characterises firms by ownership status. Non-surprisingly, there is a higher share of foreign ownership among exporters than among non-exporters. This share is slightly higher for global (19%) than for regional exporters (14%). This seems intuitive given that Foreign Direct Investment often flows into export oriented firms, but overall, the share of foreign ownership does not appear to be very high in the region. Regional exporters exhibit a higher share of “other” types of ownership, but unfortunately the questionnaire does not specify what is meant by this. Government ownership is very rare across all firm types.

With respect to the sectoral distribution of firms, the share of service providers is significantly larger among domestic firms (53%) than among exporting firms, but nearly identical between regional (24%) and global (24%) exporters and only slightly higher among indirect exporters (29%) (Figure 14.10). This is not surprising given that many services are non-tradable. Annex 14.A3 presents a more detailed perspective on the distribution of firms in the sample across sectors. It shows that the industry distribution of regional and global exporters is in fact similar. The industries that more than 5% of regional or global exporters in the sample are classified into are identical with only two exceptions: More global than regional exporters are in the textile sector, and more regional than global exporters are in the furniture sector. This is remarkable with respect to the previous finding of rather different product composition among regional and global exports. Apparently, while these differences are quite prominent at the macro level and in particular for the distribution of exports across broad economic categories (agriculture, mining, manufacturing, *etc.*), they are much less pronounced within the manufacturing and tradable services sectors. This suggests that within these sectors, firms’ decisions on whether to export regionally or globally (or both) are not necessarily determined by the type of product they produce. The finding supports the usefulness of a model based on

¹⁰. Formally, the ln average of – for instance – total sales is thus defined as $\ln AVGY = e^{\sum_{i=1}^n \left(\frac{\ln(Y_i)}{n} \right)}$, where Y_i is sales of firm i and n is the total number of firms in the sample.

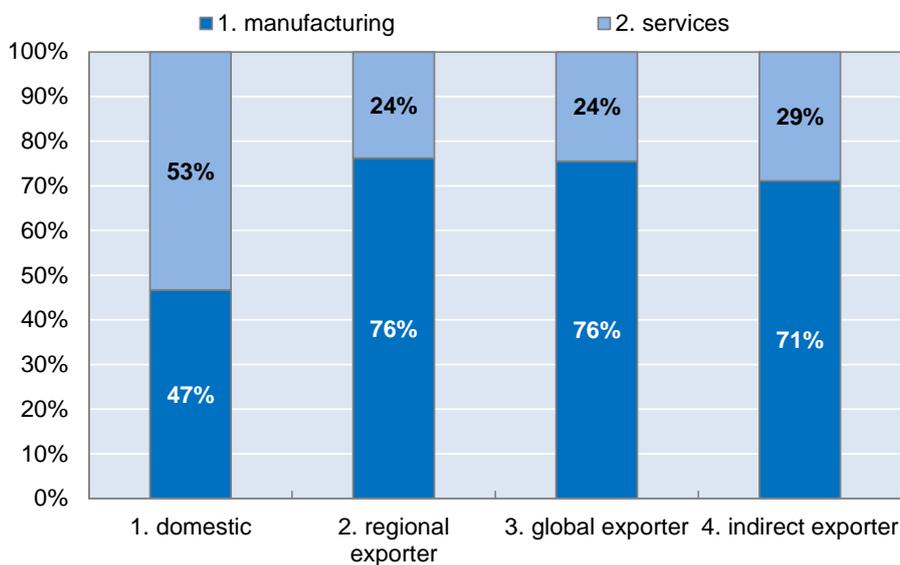
firm-level rather than industry characteristics for explaining export behaviour among these firms.

Figure 14.9. Ownership distribution by firm type



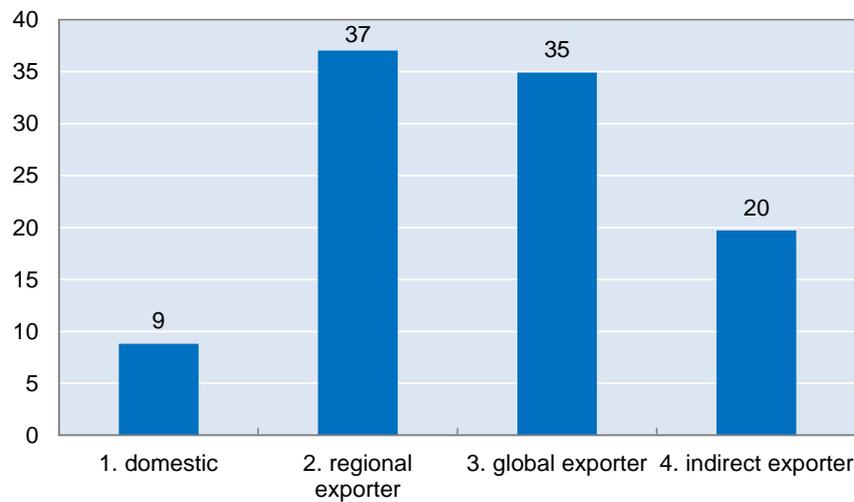
Source: Author's calculations based on World Bank Enterprise Survey Data.

Figure 14.10. Sectoral distribution by firm type



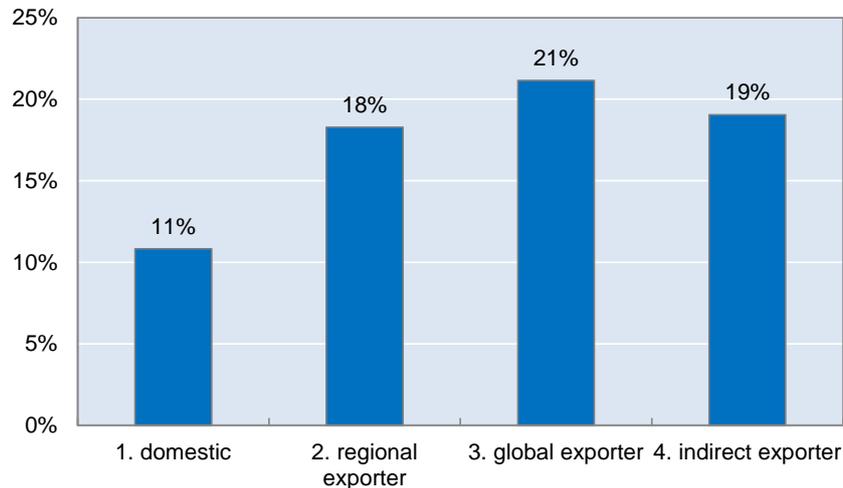
Source: Author's calculations based on World Bank Enterprise Survey Data.

Figure 14.11 presents summary statistics on the ln-average number of full-time employees by firm. Consistent with previous research, exporters are much larger in terms of employment than non-exporters. However, there does not appear to be a significant size difference between regional and global exporters. Indirect exporters fall in between domestic firms and direct exporters.

Figure 14.11. Ln-average permanent full-time employees by firm type

Source: Author's calculations based on World Bank Enterprise Survey Data.

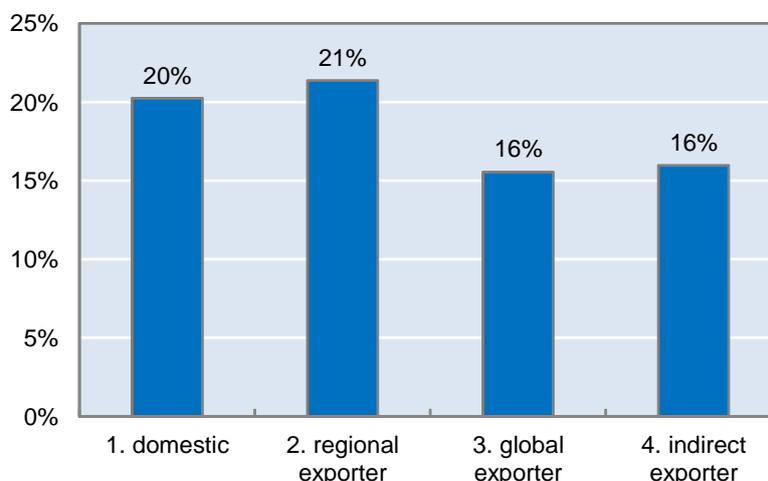
Figure 14.12 shows the average shares of temporary employment by firm type. This variable is an important indicator of decent work as temporary employees often face substantial vulnerability and less access to social protection than their colleagues with permanent work contracts. The share of temporary employees is higher for exporters than for non-exporters, but again there does not appear to be a significant difference between regional and global exporters. Entrepreneurs in Senegal and Benin interviewed in the context of this research indicated that exporters often use temporary workers to react to sudden orders from large international buyers, which would otherwise exceed their capacity.

Figure 14.12. Average share of temporary/total employees by firm type

Source: Author's calculations based on World Bank Enterprise Survey Data.

The World Bank surveys also ask firms for their employment three years ago. This information is exploited in Figure 14.13 for all firms who report data for both observation points. Regional exporters reveal the highest average employment growth rate (21%), followed by domestic firms (20%) and global and indirect exporters (16%).

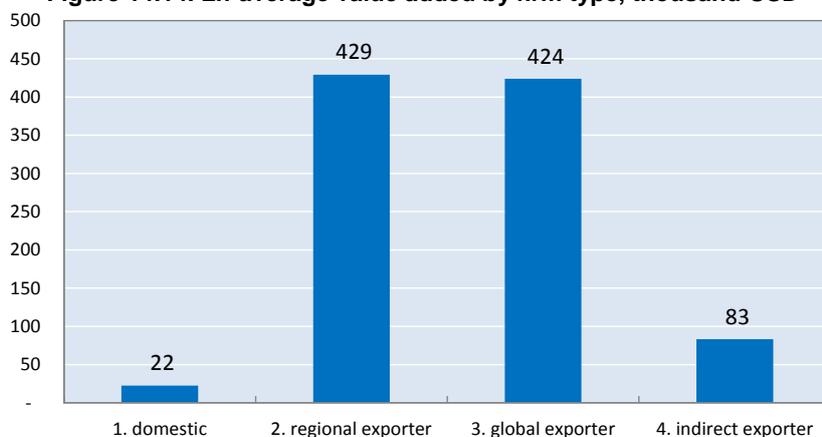
Figure 14.13. Percentage changes in ln-average employment over three years by firm type (only firms reporting data for both observation points)



Source: Author's calculations based on World Bank Enterprise Survey Data.

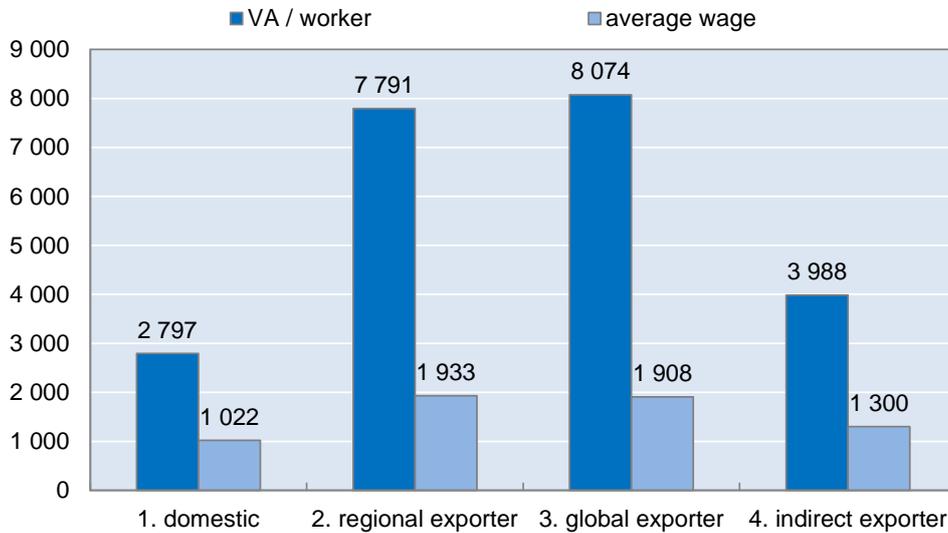
Figure 14.14 shows the ln-average of value added (sales – cost of inputs) by type of firm. As with employment, direct exporters are substantially larger than non-exporters and indirect exporters fall in between. However, there again does not appear to be a significant difference between global and regional exporters.

Figure 14.14. Ln-average value added by firm type, thousand USD



Source: Author's calculations based on World Bank Enterprise Survey Data.

Finally, Figure 14.15 shows ln-average results for firm level productivity in terms of value added per worker as well as the average wage paid (total wage costs/total employment). Both regional and global exporters are found to be much more productive than domestic firms, with indirect exporters again falling in between. However, as with the previous indicators, there is no significant difference between regional and global exporters. The same applies to average wages, although the dispersion in this case is less pronounced; both regional and global exporters pay average wages roughly twice as high as domestic firms. Unfortunately, the survey does not contain sufficient information on labour force composition to determine whether this wage premium is determined by worker characteristics (e.g. because exporters hire more skilled workers), or whether it represents a wage premium due to the higher productivity of the firm.

Figure 14.15. Ln-average value added/worker and average wage by firm type

Source: Author's calculations based on World Bank Enterprise Survey Data.

To confirm that the above reported findings are actually driven by firm-specific characteristics rather than country- or industry differences, a simple OLS regression is used with employment, VA, VA/worker, or average wage in log form as the dependent variable and dummy variables for exporting status, country location, and ISIC 2 digit industry. The results are reported below in Table 14.2. For all four variables, they confirm that global and regional exporters are significantly larger (in terms of value added and employment), more productive, and pay higher wages than domestic firms, but that there is no significant difference between regional and global exporters.

Table 14.2. OLS Regression results on firm level characteristics

	ln (employment)	ln (VA)	ln (VA / worker)	ln (average wage)
Domestic	-1.02 (0.00)**	-1.96 (0.00)**	-0.67 (0.00)**	-0.46 (0.00)**
Regional exporter			Dropped	
Global exporter	0.11 (0.54)	0.36 (0.32)	0.14 (0.57)	0.09 (0.67)
Indirect exporter	-0.37 (0.03)*	-0.98 (0.004)*	-0.31 (0.19)	-0.22 (0.25)
Control variables		Country, ISIC 2 digit sector		
Constant	3.71 (0.00)**	13.85 (0.00)**	9.76 (0.00)**	7.92 (0.00)**
Observations	1 957	1 002	1 000	1 960
R-squared	0.30	0.46	0.32	0.17

p values in parentheses

* significant at 5%; ** significant at 1%

Source: Author's calculations based on World Bank Enterprise Survey Data.

Interpretation

The firm level characteristics described in the previous section confirm that exporters in the ECOWAS region tend to be bigger, more productive, and pay higher wages than non-exporters. There has been relatively high employment growth across firm groups, and in particular for regional exporters and domestic firms. Exporters exhibit a higher share of temporary workers than non-exporters.

Perhaps surprising is the high degree of similarity between regional and global exporters. The only significant difference in firm level characteristics appears to be slightly faster employment growth for regional exporters.

The interpretation of these findings is double-edged; on one hand, it is certainly good news and an encouragement for regional integration that regionally exporting firms contribute significantly to the creation of jobs with wage and productivity levels on par to those of global exporters.

However, in the context of the above described firm level models of international trade, the reason for productivity differences between exporters and non-exporters is typically the presence of high trading costs, which only the most productive firms are willing to incur due to prospects for higher profits in international markets. In this scenario, the findings shown above would suggest that firms face similarly high trading costs to regional as to global markets. This, however, is somewhat at odds with the observation in Figure 14.6 that almost half the firms in the sample export to regional markets only. After all, if trading costs were the same, these firms should also be able to access global markets, especially given that regional and global exporters are found to produce similar products. A possible explanation could be that while investments required to access global markets are of a similar magnitude, they may be of a different nature than those required to access regional export markets. Accessing both regional and global markets at the same time would then require a double investment which few firms are prepared to undertake.

To shed light on this question and to better understand the real-life stories behind the data, structured interviews were conducted with both globally and regionally exporting firms in Senegal and Benin in February 2011¹¹. It focuses in particular on differences in the constraints faced by exporters to regional and to global markets, and how these differ from one another. While the sample of firms is rather small and evidence remains anecdotal (a total of ten companies from the processed food, palm oil, fresh fruit, handicraft, clothing, and cosmetics industries), main results were also confirmed through discussions with employers' federations and export promotion bureaus in both countries as well as an exporter network in Senegal.

Most companies mentioned difficulties to access finance as a major obstacle to their operations, regardless of the destination of their exports. However, beyond that, answers regarding main constraints differed greatly from regional to global exporting. For global exports, most firms mentioned that they would have to make very high up-front investments in machinery and production procedures in order to comply with buyers standards in international markets (in particular Europe and the United States). Companies that were currently exporting only to the region were usually reluctant to undertake these investments and argued that there would be few spillovers with their regional exports. In one case, a company even reported

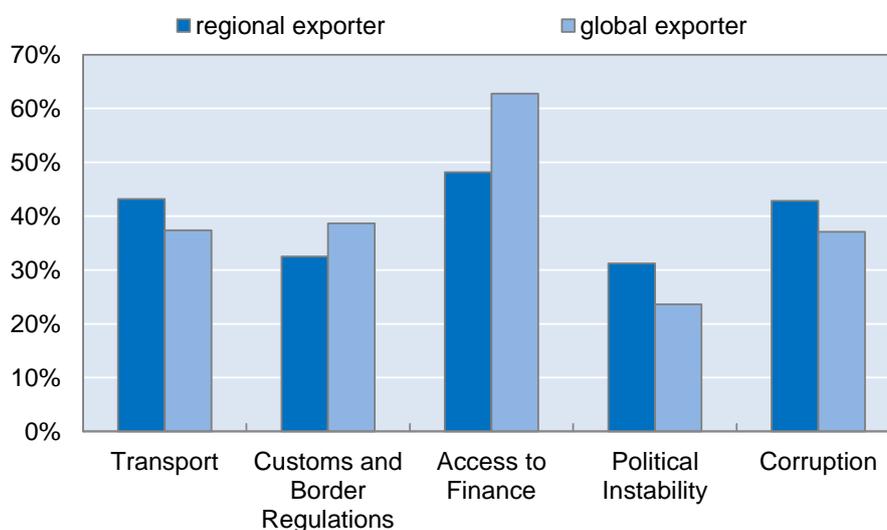
¹¹. The questionnaire used for those interviews can be found on page 36ff of *ILO Employment Working Paper No.114* (2012) available here: www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_175415.pdf

running two completely separate plants to produce the same product, one in compliance with buyer standards for the US market, and one for regional exports only.

On the other hand, global exporters were less concerned with transport logistics and getting their products to market than regional exporters. Several companies reported that shipping a container from Benin or Senegal to a European or American port was less cumbersome for them than shipping it across a land-border to a neighbouring country. The main obstacles mentioned were poor infrastructure as well as harassment, long waits and charges at intra-ECOWAS borders and sometimes even along the road. Companies frequently complained about arbitrary charges at the border and customs charges on products that should not carry any customs duty under the ECOWAS agreements. One company director pointed out that due to the EU's "Everything but Arms" initiative, market access conditions were more favourable for his products in Europe than within the region.

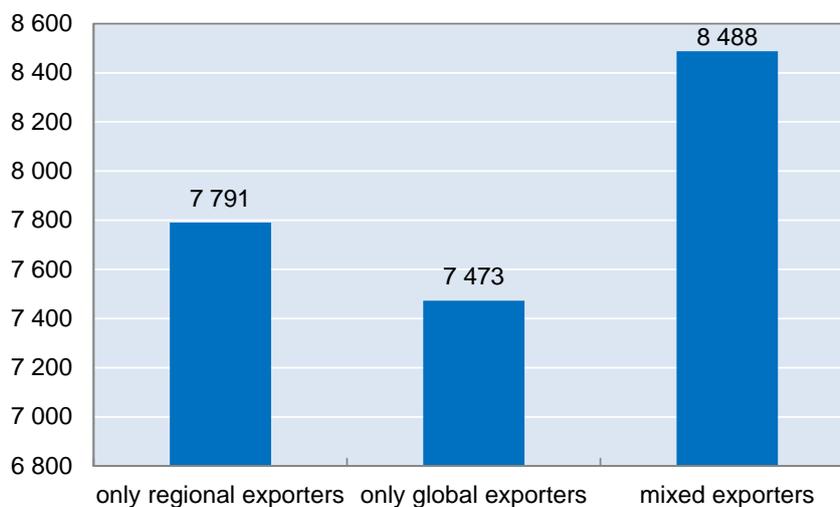
In summary, interviews with exporters confirmed that up-front costs to reach foreign markets are in fact high, but rather different between global and regional exporting. Thus, a company may indeed face the choice between engaging in one or the other type of trade, but find it too costly to invest in both. While this hypothesis cannot be explicitly tested in the available firm level data, the survey contains a number of questions that ask firms to rank the severity of constraints (unfortunately, compliance with standards is not among the issues covered). Figure 14.16 reports these indicators for the sample of firms presented above. While the differences are not very pronounced, regional exporters do in fact more frequently rank transport, political instability (which may to some extent reflect the reliability of political commitments in ECOWAS) and corruption as an obstacle. Global exporters are more likely to complain about customs procedures, but the relatively high share of regional exporters complaining about this remains remarkable given that ECOWAS is – at least on paper – a customs union.

Finally, global exporters are more likely to rank access to finance as a major or very severe obstacle. It seems unlikely that global exporters find it indeed more difficult to raise a given amount of money from a bank than a comparable regional exporter. More likely, this ranking reflects a higher demand for external finance among global exporters. This adds an interesting perspective to the structure of trade costs; while the necessary investments in upgrading of machinery and processes required for global exporting typically have to be made up-front, high costs associated with transport, border crossing, *etc.*, which are most common at the regional level accrue with each individual shipment. This could explain a higher demand for external finance among global exporters, and it could also mean that the decision between regional and global exporting by firm may to some extent be determined by their access to external finance: If finance is readily available, firms may more readily decide to undertake the large upfront investments associated with global exporting.

Figure 14.16. Share of firms ranking an issue as a major or very severe obstacle

Source: Author's calculations based on World Bank Enterprise Survey Data.

If it is indeed correct that regional and global exporting entails different types of costs, which would add up for a firm exporting to both regional and global markets, a heterogeneous firm model would predict that only the most productive firms would find it profitable to invest into accessing both the regional and the global market. This hypothesis can be tested by further subdividing the group of global exporters in the data between firms that export only to global markets and firms that export to both the regional and global markets. Figure 14.17 presents the results. It appears that indeed, firms exporting to both regional and global markets are more productive than firms exporting to only one or the other, confirming the hypothesis. This finding also highlights the particular challenges faced by landlocked countries in the region; exporters from these countries will have to deal with both the regional and the global trading costs in order to access overseas markets, and are thus likely to face an even higher productivity threshold below which exporting is not profitable.

Figure 14.17. In-average value-added per worker, by firm type

Source: Author's calculations based on World Bank Enterprise Survey Data.

14.5. Conclusions

This paper has analysed the impact and potential of regional trade in the ECOWAS region for the creation of decent employment from two different perspectives. First, following classic trade models, product composition of regional versus global exports and their linkages with decent employment were analysed. This revealed that regional comparative advantage is quite different from global comparative advantage for most countries in the region, but there are different pattern of regional vs. global comparative advantage across countries with different implication for employment:

- For regional exporters of agricultural products like Mali, Niger, and Burkina Faso, an expansion of regional trade could be expected to have a relatively strong direct employment effect. The flipside is that these jobs would probably have relatively low productivity levels. Direct employment creation from regional trade is likely to be lower, but in more productive jobs for regional exporters of manufactures (Benin, Cote d'Ivoire, Ghana, Senegal, Togo), and very low for mineral exporters (Guinea, Nigeria).
- The PRODY methodology to analyse export composition with respect for its potential for future productivity growth suggests that regional exporters of manufactures on average have higher potential for productivity growth than agricultural exporters in the region. However, in both cases, the composition of regional exports suggests higher potential for productivity growth than the composition of global exports.
- For all countries (except Nigeria), regional trade is found to contribute significantly to export diversification, and it thus plays an important positive role to reduce these countries' vulnerability to external shocks that may result in job and income insecurity for workers.

The second part of the paper focuses on differences at the firm level between domestic firms, regional and global exporters. The findings suggest that exporting firms in ECOWAS are larger, more productive, and pay higher wages than non-exporters, but regional and global exporters are remarkably similar in terms of these categories. Regional exporters did exhibit slightly faster employment growth in the years prior to the survey. These findings are good news in the sense that they show that regional exporter do create productive jobs. However, in the context of heterogeneous firm trade models, these findings on firm level characteristics suggest that trade costs in the region are similarly high as global trade costs, although they appear to be of a very different nature. Thus, the costs of exporting to regional and global markets seem to add up, which explains the relatively high number of firm that export to only one or the other market, but not to both. This suggests that lowering regional trade costs has strong potential to allow more firms in the region to benefit from the opportunities of regional trade and create jobs.

In conclusion, regional trade for most ECOWAS members is quite different from global trade in terms of its impact on decent employment creation, but it is not generically “better” or “worse”. Instead, the employment effects of regional trade expansion can be expected to be quite heterogeneous across countries in terms of both the number and quality of jobs created. If these effects are well understood, ECOWAS countries are in a better position to combine the potential of both global and regional trade in a way that fosters decent work creation, and to implement targeted and coherent supplementary policies that maximise the benefits of trade. For example, regional exporters of primarily agricultural products can expect a relatively strong employment effect of regional trade, but would be well advised to support this through policies that enhance the productivity of agricultural employment. Regional exporters of manufacturing, on the other hand, can expect creation of higher productivity jobs from regional than from global trade, but these may be more limited in number. For oil and mineral exporters, diversification into new export products with higher employment effects is key.

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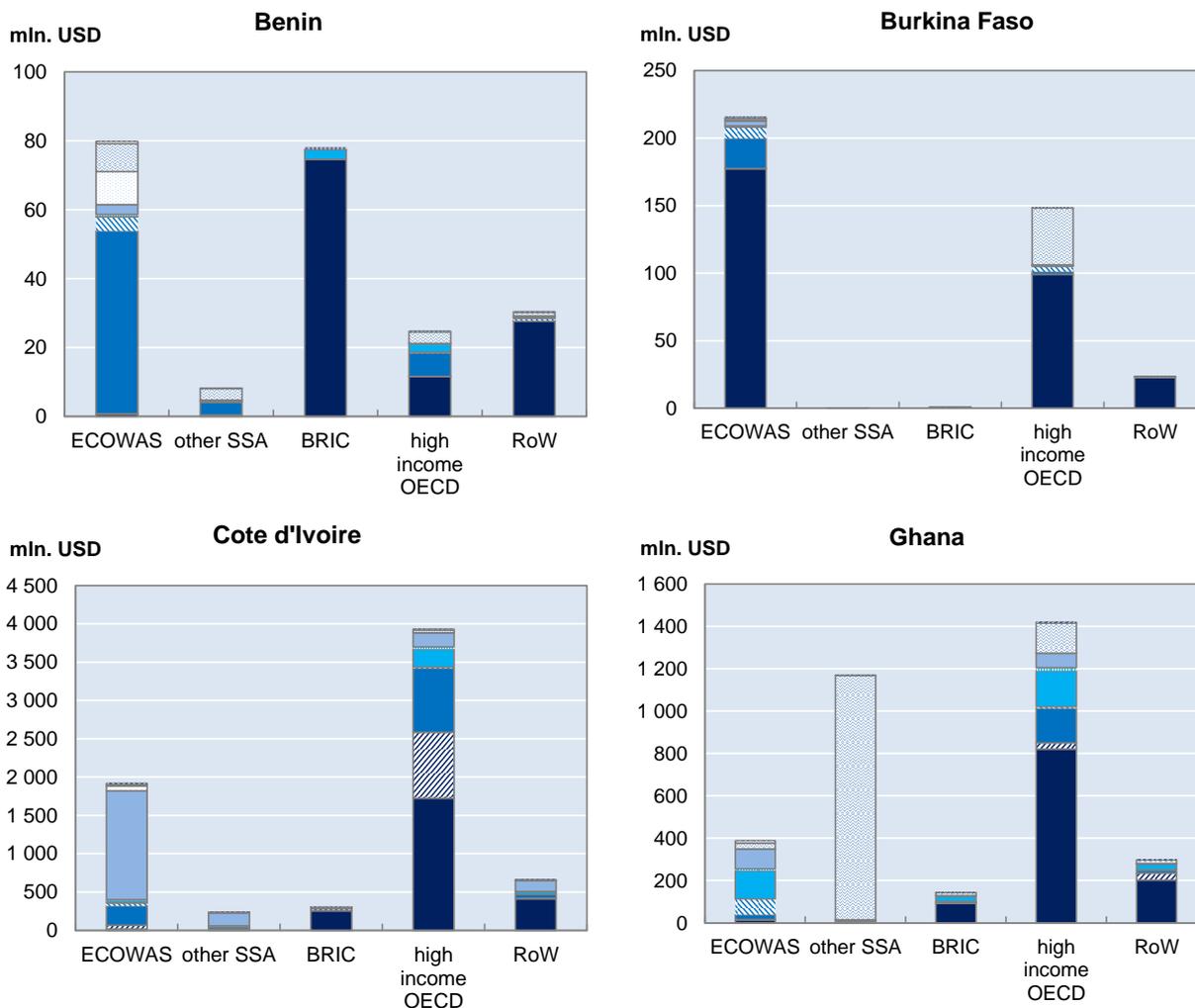
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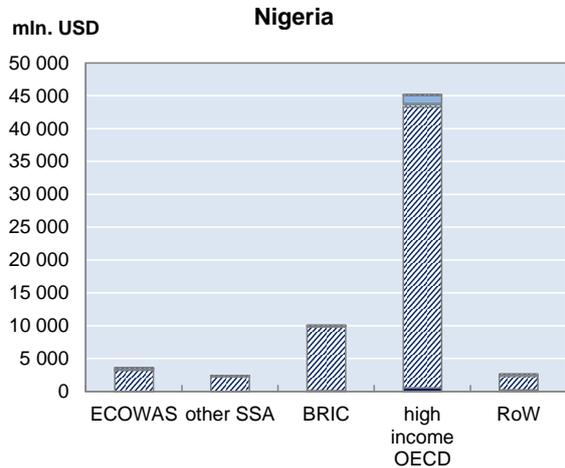
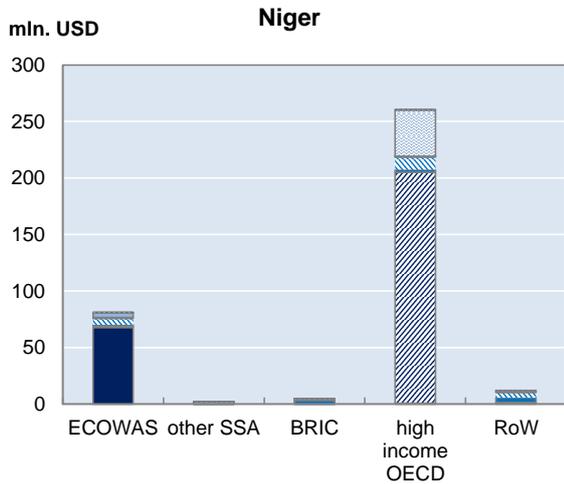
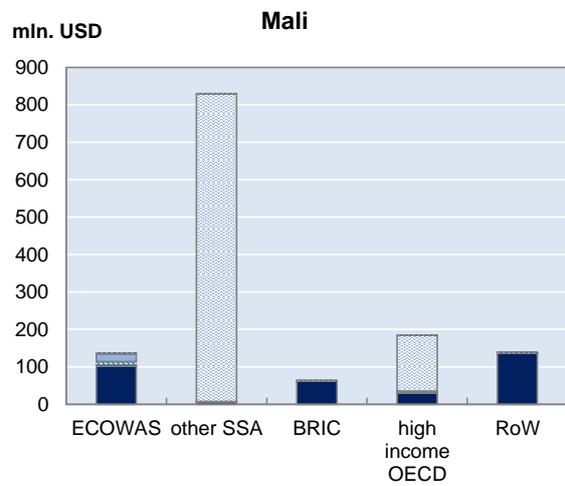
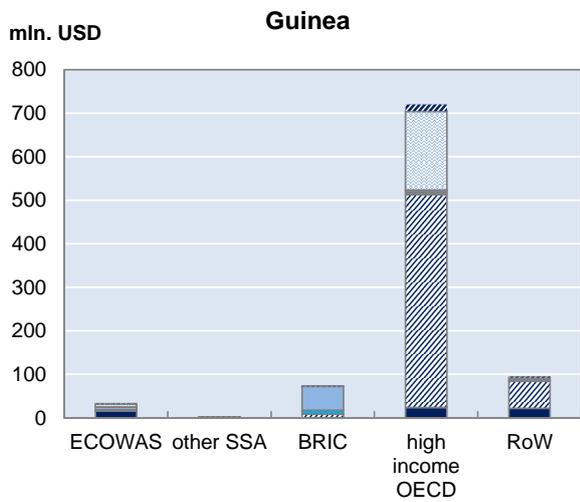
Annex 14.A1.

Figure 14.A1.1. Export composition by destination of exports for ECOWAS countries

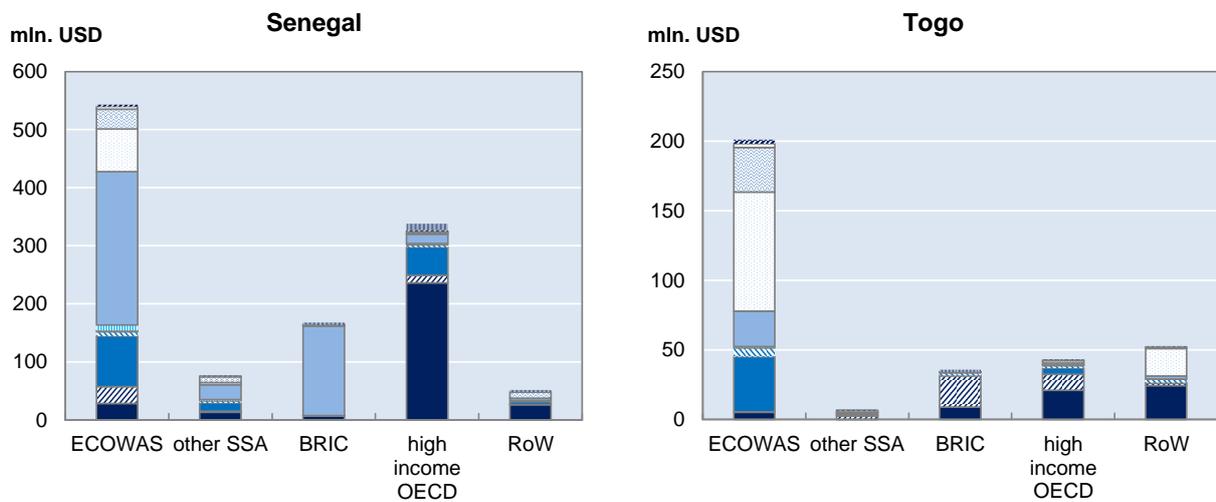
- ISIC 99: Unclassified
- ▨ ISIC 39: Manufacturing: Other
- ISIC 38: Manufacturing: Fabricated Metal Products, Machinery and Equipment
- ▩ ISIC 37: Manufacturing: Basic Metal
- ISIC 36: Manufacturing: Non-Metal Mineral Products, exc. of Petroleum and Coal
- ISIC 35: Manufacturing: Chemical, Petroleum, Coal, Rubber and Plastic Products
- ▨ ISIC 34: Manufacturing: Paper and Paper Products
- ISIC 33: Manufacturing: Wood and Wood Products incl. Furniture
- ▨ ISIC 32: Manufacturing: Textile, Apparel and Leather
- ISIC 31: Manufacturing: Food, Beverages and Tobacco
- ▨ ISIC 21-29: Mining and Quarrying
- ISIC 11-13: Agriculture, Hunting, Forestry and Fishing



- ISIC 99: Unclassified
- ▨ ISIC 39: Manufacturing: Other
- ISIC 38: Manufacturing: Fabricated Metal Products, Machinery and Equipment
- ▩ ISIC 37: Manufacturing: Basic Metal
- ISIC 36: Manufacturing: Non-Metal Mineral Products, exc. of Petroleum and Coal
- ISIC 35: Manufacturing: Chemical, Petroleum, Coal, Rubber and Plastic Products
- ▨ ISIC 34: Manufacturing: Paper and Paper Products
- ISIC 33: Manufacturing: Wood and Wood Products incl. Furniture
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- ▨ ISIC 21-29: Mining and Quarrying
- ISIC 11-13: Agriculture, Hunting, Forestry and Fishing



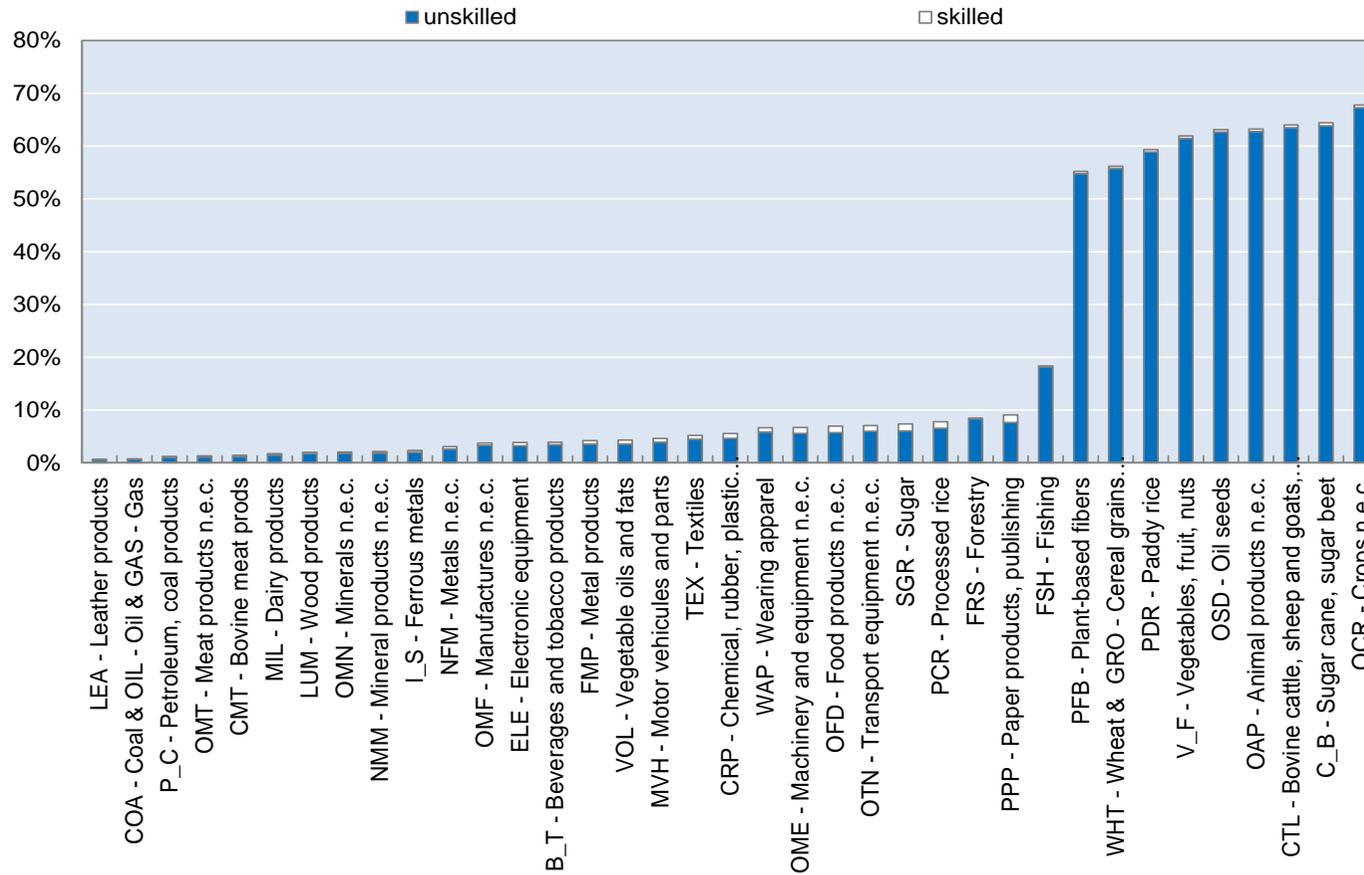
- ISIC 99: Unclassified
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- ISIC 11-13: Agriculture, Hunting, Forestry and Fishing



Source: Authors' calculation based on data from COMTRADE, average between all years with data availability between 2004 and 2008.

Annex 14.A2

Figure 14.A2.1. Average wage shares from GTAP Nigeria, Senegal and West Africa SAMs



Source: Author's calculation based on data from GTAP.

Annex 14.A3.

Table 14.A3.1. Sectoral distribution of firms in sample by exporting status

ISIC sector	1. domestic (n=2017)	2. regional (n=80)	3. global exporter (n=94)	4. indirect exporter (n=149)
15 - Manufacture of food products and beverages	12.2%	7.5%	17.0%	10.7%
17 - Manufacture of textiles	0.9%	2.5%	5.3%	2.7%
18 - Manufacture of wearing apparel; dressing and dyeing of fur	9.7%	7.5%	12.8%	24.8%
19 - Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	1.1%	0.0%	4.3%	0.0%
20 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	2.4%	3.8%	4.3%	1.3%
21 - Manufacture of paper and paper products	0.3%	3.8%	1.1%	0.7%
22 - Publishing, printing and reproduction of recorded media	3.9%	3.8%	4.3%	4.0%
23 - Manufacture of coke, refined petroleum products and nuclear fuel	0.3%	0.0%	0.0%	0.7%
24 - Manufacture of chemicals and chemical products	2.5%	10.0%	6.4%	6.0%
25 - Manufacture of rubber and plastics products	0.7%	13.8%	6.4%	3.4%
26 - Manufacture of other non-metallic mineral products	1.3%	1.3%	2.1%	0.7%
27 - Manufacture of basic metals	0.5%	2.5%	0.0%	4.0%
28 - Manufacture of fabricated metal products, except machinery and equipment	3.4%	5.0%	2.1%	3.4%
29 - Manufacture of machinery and equipment n.e.c.	0.6%	3.8%	3.2%	3.4%
30 - Manufacture of office, accounting and computing machinery	0.0%	0.0%	0.0%	0.0%
31 - Manufacture of electrical machinery and apparatus n.e.c.	0.3%	2.5%	2.1%	2.7%
32 - Manufacture of radio, television and communication equipment and apparatus	0.1%	0.0%	0.0%	0.7%
33 - Manufacture of medical, precision and optical instruments, watches and clocks	0.2%	0.0%	0.0%	0.0%
34 - Manufacture of motor vehicles, trailers and semi-trailers	0.1%	0.0%	0.0%	0.7%
35 - Manufacture of other transport equipment	0.1%	0.0%	0.0%	0.7%
36 - Manufacture of furniture; manufacturing n.e.c.	5.6%	8.8%	4.3%	0.7%
37 - Recycling	0.0%	0.0%	0.0%	0.0%
40 - Electricity, gas, steam and hot water supply	0.0%	0.0%	0.0%	0.0%
41 - Collection, purification and distribution of water	0.0%	0.0%	0.0%	0.0%
45 - Construction	4.9%	2.5%	2.1%	1.3%
50 - Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	4.8%	1.3%	1.1%	2.7%
51 - Wholesale trade and commission trade, except of motor vehicles and motorcycles	9.4%	8.8%	7.4%	10.1%
52 - Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	21.8%	2.5%	4.3%	6.7%
55 - Hotels and restaurants	6.0%	2.5%	4.3%	2.7%
60 - Land transport; transport via pipelines	1.5%	2.5%	3.2%	2.7%
61 - Water transport	0.1%	1.3%	1.1%	0.0%
62 - Air transport	0.3%	1.3%	0.0%	0.0%
63 - Supporting and auxiliary transport activities; activities of travel agencies	0.7%	0.0%	0.0%	1.3%
64 - Post and telecommunications	0.8%	0.0%	1.1%	1.3%
65 - Financial intermediation, except insurance and pension funding	0.0%	0.0%	0.0%	0.0%
72 - Computer and related activities	2.0%	1.3%	0.0%	0.0%
74 - Other business activities	0.8%	0.0%	0.0%	0.0%

Source: Author's calculation based on data from GTAP.