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Development of the Product Structure of ECOWAS Merchandise Exports to the European Union for the Period 1995–2016

Abstract

The Economic Community of West African States is a progressive integration organization, as well as an important trading partner for the EU. Their trade relations are traditionally very close. The product structure of their mutual trade flows is affected by existing economic differences. The EU exports to ECOWAS countries, especially manufactured goods, while ECOWAS countries export primary commodities to the EU market. The EU tries to promote transformation of productive capacities of less developed ECOWAS countries. This should boost the product diversification of their merchandise exports, and thus improve the stability of their export revenues, which is necessary for their inclusive and sustainable growth and development. The EU intends to base their trade relations on the Economic Partnership Agreement establishing a free trade area. However, it has not come in force yet. The aim of this paper is to analyse the product structure of ECOWAS exports to the European Union and to identify basic shifts in this structure for the 1995–2016 period. Conclusions of the paper are based on a review of relevant official documents, scientific sources, as well as on own analysis of statistical data concerning ECOWAS-EU trade flows.

Key words: Economic Partnership Agreement, ECOWAS, European Union, primary commodities, product diversification.

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Introduction

The European Union is the market which is the most open to developing countries in the world. Excluding fuels, the EU imports more from developing countries than the United States, China and Japan combined. Moreover, the EU pays special attention in trade relations to the so-called African, Caribbean and Pacific (ACP) countries under the framework of the ACP-EU Cotonou Economic Partnership Agreement. Although this agreement is declared as being concluded by partners, it initiated an unequal partnership in various aspects.

West Africa is usually defined as a poor, low-income region. It is one of the seven ACP regions recognized by the EU. West African countries are unstable and vulnerable in economic and political terms. The Economic Community of West African States (ECOWAS) is the regional integration organization based on cooperation of 15 West African countries, namely Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. For a long time, these countries' development has shown typical symptoms of the curse of natural resources. Although they are rich in natural resources, they exhibit a very low economic level of development, they are highly indebted and their populations live in poverty. Endemic corruption and low effectiveness of local governance impede their progress. The majority of West African countries are not fully competitive in global markets with their industrial production, therefore, they usually export only primary commodities with low value added and fluctuating prices.

The aim of this paper is to analyse the product structure of ECOWAS exports to the European Union and identify basic shifts in this structure for the 1995–2016 period. Based on previous results of our research (focused on trade between ECOWAS and the EU), we know that primary commodities are the most important export items for ECOWAS countries, however, we want to quantify their share in total ECOWAS merchandise exports to the EU and establish, whether the product structure shifts towards a more diversified one. Conclusions to our research are based on a review of relevant official documents prepared by African and European institutions; a review of relevant scientific sources, as well as on our own analysis of statistical data.

1. Formulation of the Research Problem

Economists analyse trade relations between West Africa and the EU in various circumstances, but primarily they pay attention to analyses of potential benefits, risks and losses connected with West Africa-EU Economic Partnership Agreement. See, for example, papers of Busse, Grossman (2007), Karingi et al. (2005), Zouhon-Bi, Nielsen (2007), Nwali, Arene (2015), etc.

In our long-term research, we pay attention to different aspects concerning trade relations between West Africa and the European Union. We try to bring deeper insight and open expert discussion of this topic in Czech research space. We have already identified the most important patterns of these trade relations (see Kovářová 2016), and also some specific matters, such as the level of intra-industrial trade (see Kovářová 2017). However, we have previously not paid attention to the shifts in product structure of West African exports to the EU. Product diversification of exports is recognized to be the precondition for inclusive and sustainable economic growth and for the development of poor developing countries which are rich in natural resources.

As we stated above, the aim of this paper is to analyse the product structure of ECOWAS exports to the European Union and to identify basic shifts in this structure for the 1995–2016 period. In order to accomplish this aim, we divide our analysis into three stages: 1. We briefly introduce the formal framework of the ECOWAS-EU trade relations. 2. We describe basic product structure of ECOWAS merchandise exports to the EU. 3. We identify basic trends and shifts in this structure with the use of two selected indicators – the Herfindahl-Hirschman Product Concentration Index and Trade Intensity Index (see Table 1). Both indicators (HHI, TII) are designed as static; therefore, we calculate them for every year of the examined 1995–2016 period.

In our statistical analysis, we use data available in the online statistical dataset of the United Nations Conference on Trade and Development (UNCTAD). We carry out our analysis at the top level of product groups of the United Nations' Standard International Trade Classification (SITC), revision 3[1]. Finally, we conclude our paper with a discussion on the most important consequences of the uncovered results, with

[1] SITC0 – Food and live animals, SITC1 – Beverages and tobacco, SITC2 – Crude materials, inedible, except fuels, SITC3 – Mineral fuels, lubricants and related materials, SITC4 – Animal and vegetable oils, fats and waxes, SITC 5 – Chemicals and related products, SITC6 – Manufactured goods, SITC7 – Machinery and transport equipment, SITC8 – Miscellaneous manufactured articles, SITC9 – Commodities and transactions, n.e.s.

an indication of future perspectives of the trade relations between ECOWAS and the European Union.

Table 1: Indicators used in data processing

Indicator	Mathematical definition	Variables	Range of Values
Herfindahl-Hirschman Product Concentration Index (HHI)	$\dfrac{\sum_{k=1}^{n_i}\left(\dfrac{x_{ik}}{X_i}\right)^2-\dfrac{1}{n_i}}{1-\dfrac{1}{n_i}}$	X – total exports from export *i* x – value of exports of product group k from exporter *i* n – number of products exported by exporter *i*	0 to 1 A higher index indicates that exports are concentrated in fewer sectors.
Trade Intensity Index (TII)	$100\times\left(\dfrac{\dfrac{x_{ij}}{X_i}}{\dfrac{x_{wj}}{X_w}}\right)$	x – value of exports of primary commodities from exporter i to destination j X – total exports of primary commodities from exporter i w– indicates the world as origin	0 to +∞ A value greater than 100 indicates a relationship more intense than the world average for the partner.

Source: World Bank, 2013.

2. Solution of the Research Problem

African Economic Outlook (2017, 73–95) presents data revealing significant weaknesses of African foreign trade. Trade between Africa and the world has expanded fourfold in two decades. The European Union is the most important trading partner for Africa, because it accounts for 30% of African countries' exports. Product diversification of these exports is insufficient, because 1 out of 4 African countries rely on 1–2 commodities for 75% or more of their export revenues. Patterns of ECOWAS exports are similar, boosted with the presence of countries rich in natural resources, and traditionally close economic relations with Western European countries.

2.1. Formal Framework of the ECOWAS-EU Trade Relations

The Economic Community of West African States is a regional integration organization that was founded already in 1975. Although ECOWAS has operated as a customs union since 2016, the level of the intra-community trade is low and does not exceed 12% of the total ECOWAS trade. Therefore, economic cooperation between 15 member states has not reached its potential yet. West African countries have very close trade relations especially with European countries. Economists consider traditional reliance on the markets of European countries as a barrier for increased intra-regional trade in West Africa, and call for its reduction.

The EU defines West Africa, the home region of ECOWAS, as one of the ACP regions; therefore, alongside other trade measures applied towards less developed West African countries[2], within the framework of Cotonou Agreement, so-called Economic Partnership Agreement (EPA) should be negotiated between the EU and West African countries. Its aim is to open reciprocal trade relations and to establish a free trade area between the signatory parties. West Africa is one of two ACP regions that have already concluded their EPA (European Commission 2017). Nowadays, the region undergoes adoption processes.

West Africa-EU Economic Partnership Agreement brings together 16 West African countries[3], two regional organizations (ECOWAS and WAEMU[4]) and the European Union. ECOWAS Heads of State endorsed EPA in 2014, after ten years of negotiations. Nowadays, the signature process is underway, but two countries, Nigeria[5] and Gambia, have not signed EPA yet. After the agreement is signed by all parties, it will be submitted for ratification. Two other countries, namely Côte d'Ivoire and Ghana ratified the Stepping Stone EPAs that entered into provisional application in 2016 (European Commission 2017).

ECOWAS countries considered their participation in EPA because of its direct and indirect impact on their less developed economies. They expressed their fears of a larger quantity of European goods that would come to their markets in more favourable conditions than so far. They also considered the impact of EPA on their public budgets because of the losses connected with the removal of customs duties. Many studies deal with the effects of the removal of tariff and non-tariff measures imposed on EU imports to West Africa and show that some reforms of fiscal and

[2] West Africancountries, except Cabo Verde, Côte d'Ivoire, Ghana and Nigeria, are classified as the Least Developed Countries, which have duty-free and quota-free access to the EU under the Everything But Arms scheme.

[3] Regional EPA is opened also for Mauritania that is not actually member of ECOWAS.

[4] WAEMU – West African Economic and Monetary Union integrates 8 ECOWAS member states – Benin, Guinea-Bissau, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo using the CFA Franc in common.

[5] In Nigeria, very negative campaign against EPA isled by its mass media (see Arrion 2017), emphasizing potential risks and losses connected with participation in EPA. In spite of the fact that the EU is the top export market for Nigeria's oil and non-oil exports and Nigeria is the key beneficiary of EU foreign investment.

economic policies should follow the signing of EPA, see recommendations of Busse, Grossmann (2007, 808); Nwali, Arene (2015, 72–73); Zouhon-Bi, Nielsen (2007, 16).

The EU realizes that EPA opens partnership between unequal partners. Therefore, EPA is intended to favour West African countries. While the EU would open its markets to West African goods immediately after EPA comes into force, West African countries are given the obligation to remove import tariffs only partially over a 20-year transition period. EPA is also intended to serve as a tool to promote the structural transformation of West African countries' productive capacities (towards production of value-added goods), and to encourage regional economic integration. Attention is also paid to sustainable development.

2.2. Product Structure of the ECOWAS Merchandise Exports to the European Union

ECOWAS countries are richly endowed with mineral resources, such as oil (Nigeria, Guinea-Bissau, Ghana), diamonds (Liberia, Sierra Leone), gold (Ghana, Guinea). Besides extracting industries, agriculture also plays significant role in their economies. In the whole region, agriculture accounts for 65% of employment and 35% of GDP. Therefore, the majority of countries export cash crop, such as cocoa (Côte d'Ivoire) or cotton (Mali, Benin).

In general, ECOWAS exports to the EU increased over the 1995–2008 period. Next, in 2009, in response to global financial and economic crisis, they dropped. However, in 2010 they reached their pre-crisis level and grew further until the year 2012. Since 2012, they have been declining. If we divide the total value of ECOWAS exports to the EU into three basic product groups – primary commodities[6], manufactures[7] and other non-classified products (SITC 9), we notice that primary commodities are the most important items exported from ECOWAS to the EU over the examined 1995–2016 period. Their share in total value of merchandise exports is about 90%. The share of manufactures exceeded 10% only in 2004 and 2005. See Figure 1.

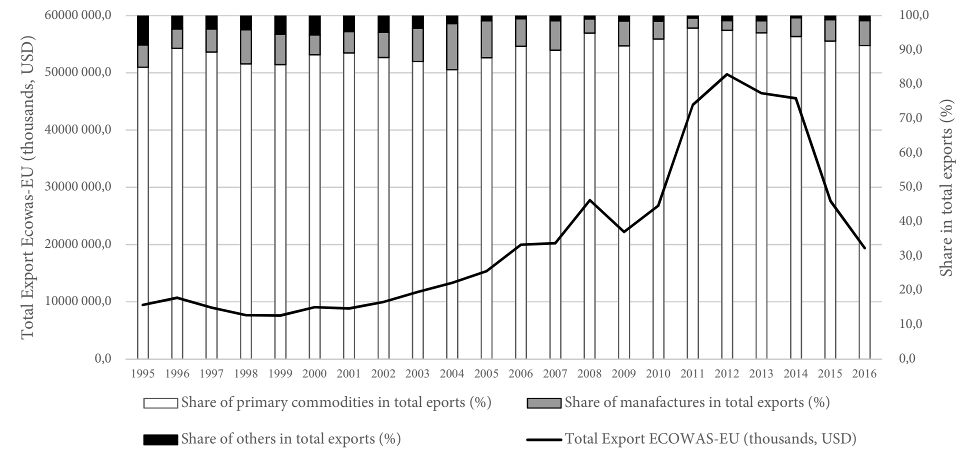
The product structure of ECOWAS-EU merchandise exports is highly influenced by the product structure of exports of three countries, namely Nigeria, Côte d'Ivoire, and Ghana, together accounting for 90% of ECOWAS merchandise exports to the

[6] Defined as the sum of exports within five SITC top levels of product groups (SITC0, 1, 2, 3 and 4).

[7] Defined as the sum of exports within four SITC top levels of product groups (SITC5,6,7 and 8).

EU. Their export capacity is accompanied with foreign investment. Anyanwu and Yameogo (2015, 204) show that between years 1970–2013, Nigeria, Ghana and Côte d'Ivoire were the top 3 receivers of foreign investment in West Africa that together obtained three quarters of total West African inflows of foreign investment.

Figure 1: Basic product structure of ECOWAS-EU merchandise exports



Source: Own processing based on data of UNCTAD, 2017.

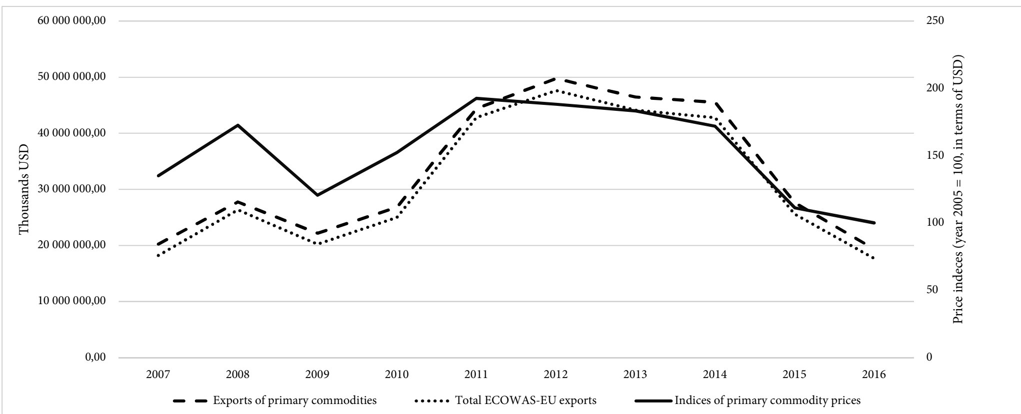
Nigeria, the economic hegemon of ECOWAS, is traditionally focused on exports of fuels. In 1997, fuel exports accounted for 97% of Nigeria's merchandise exports, and in 2016 for 88%[8]. Côte d'Ivoire and Ghana specialize in exports of primary commodities too, but the share of fuels exports in merchandise exports was 4,9% for Côte d'Ivoire and 6,5% for Ghana in 2016. Côte d'Ivoire is known as an exporter of cocoa, palm oil and coffee. Whereas, gold and cocoa are the most important export items of Ghana. However, the share of fuels in their revenues from merchandise exports has increased. In 1997, this share accounted for 1%. This increasing share of fuels exports is connected with foreign investment inflows. Nahr (2015) explains that Ghana benefitted from foreign investment especially during the period of rising prices of minerals and since the discovery of oil in 2007. Therefore, mining and quarrying (including the oil sector) were the major recipients of direct foreign investment between years 2010–2012. Also, Anyanwu and Yameogo (2015, 203) confirm the

[8] Part of the UNCTAD online dataset known as the Merchandise trade matrix – product groups, does not contain data concerning exports of fuels for every ECOWAS country in every year of the observed period, but only for years 1997, 1998, 2014, 2015 and 2016.

importance of foreign investment for the rise of fuels exports because, as they write, oil production in Ghana and Côte d'Ivoire attracted considerable investment from foreign transnational corporations, such as Royal Dutch Shell, Exxon Mobile, China National Offshore Oil Company or China National Petroleum Corporation, in 2013.

In 2016, fuel exports of ECOWAS generated 54% of its merchandise exports. Since 2014, this share has been declining because of declining global prices of oil. Similar effect is accompanied by declining global prices of all primary commodities. Figure 2 reveals tight correlation between the total value of ECOWAS merchandise exports, exports of primary commodities and global prices of these commodities.

Figure 2: ECOWAS-EU merchandise exports and global prices of primary commodities



Source: Own processing based on data of UNCTAD and IMF, 2017.

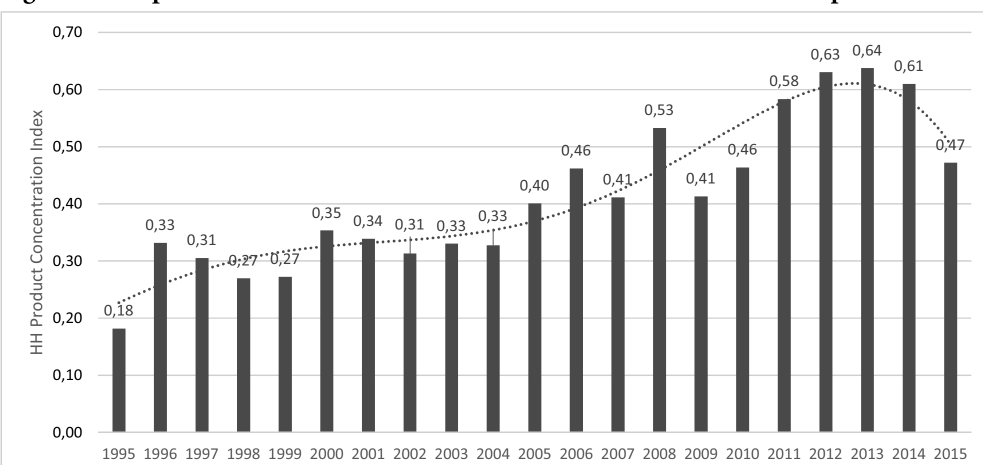
Recent fall in global prices of primary commodities has had a significant impact on foreign exchange earnings of West African countries which are dependent on exports of such commodities. However, this dependence was boosted by foreign investment in past and recent years, because foreign corporations usually concentrated their investment in capital-intensive extractive industries in West Africa (UN Economic Commission for Africa, 2015, 6–12).

2.3. Shifts in Product Diversification of ECOWAS Merchandise Exports to the European Union

Over the 1995–2016 period, primary commodities generated on average 90% of all ECOWAS merchandise exports to the EU. However, we follow product structure only for these three product groups. Deeper insight into the product structure can be achieved through the application of the Herfindahl-Hirschmanproduct concentration index (HHI) that measures dispersion of trade value across the exporter's product groups. Scores of HHI are calculated on a scale from 0 (complete product diversification) to 1 (concentration in only one product group). Methodology of this index allows for the selection of various levels of product groups' aggregation[9].

Figure 3 shows values of HHI calculated on SITC top level of product groups (defined as SITC0–SITC9), i.e. we assume that ECOWAS exports to the EU ten product groups. Although our basic description, presented in previous chapter, indicates low product diversification of ECOWAS-EU exports, HHI reveals that especially between years 1995–2004, it was significantly higher than in recent years. The lowest level of diversification is seen between years 2011 and 2014, however it is again linked to increased global prices of primary commodities as we deal with current values of exports.

Figure 3: HH product concertation index for ECOWAS-EU merchandise exports



Source: Own processing based on data of UNCTAD, 2017.

In order to identify the basic long-term trend in the development of HHI values, we apply graphical statistical analysis based on identification of polynomial trend (order five) in annual levels of HHI (dash line in Figure 3). Final stage of our analysis

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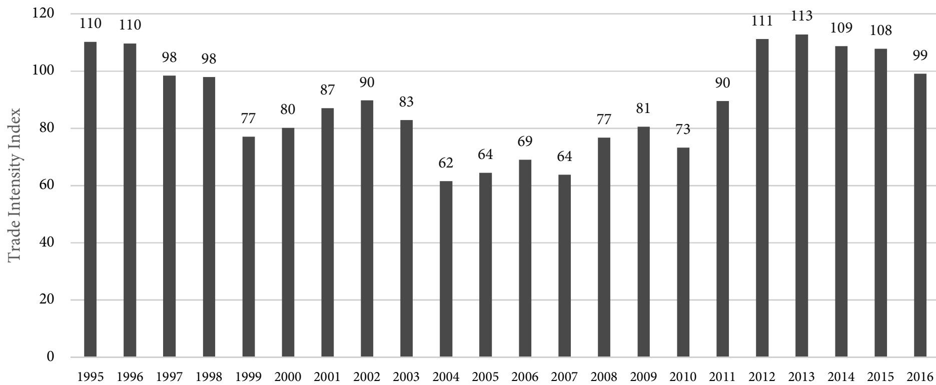
[9] Itis necessary to take into account the fact that aggregation to products groups made for HHI calculation has impact on the value of HHI. If the exported products are aggregated only into few groups, then HHI value will be higher than in the case of lower level of aggregation.

is focused on the intensity of ECOWAS exports of primary commodities to the EU. For its evaluation, we calculate the Trade intensity index (TII), which can indicate whether ECOWAS exports primary commodities more, as a percentage, to the EU than the world does on average. In general, values of TII can range from 0 to +∞. Values for ECOWAS-EU exports of primary commodities vary over the observed period. See Figure 4.

Figure 4: Trade intensity index of ECOWAS-EU exports of primary commodities



Source: Own processing based on data of UNCTAD, 2017.

The lowest value of TII was reached in 2004 and the highest in 2013. A value higher than 100 indicates that the defined relationship is more intense than the world average for the European Union.

2.4. Discussion

The European Union declares that EPA can help West African countries with structural transformation of their productive capacities, which should lead to more diversified merchandise exports and more stable export revenues. Through mutual trade and investment, the EU wants to boost sustainability of their economic growth and development. Many studies confirm that economic partnership offered by the EU is as unambiguously beneficial as it is officially declared. Economists point out that recent foreign investment (also those of European corporations) in West African region was still concentrated on capital-intense extracting industries, which boosted countries' dependence on exports of primary commodities. Since 2011, indexes of primary commodities prices have revealed declining prices of these commodities in global markets, which have affected total export revenues of ECOWAS countries.

We can discuss what would affect the structural transformation of productive capacities in West Africa: would it be market forces (declining prices of primary commodities causing lower returns on investment and thus, investors' reorientation), or adjustment of governmental investment policies (in consequence to market forces), or the economic partnership (and assistance) offered by the European Union?

Conclusions

ECOWAS is one of the most progressive integration organizations in Sub-Saharan Africa and a very important trading partner for the European Union in this region of the world economy. Moreover, West African countries have very close economic relations with West European countries because of their colonial history. Nowadays, ECOWAS-EU trade relations are led by the vision focused on the foundation of a free trade area under the Economic Partnership Agreement.

Potential free trade area between West Africa ACP region and the EU sparks an important economic debate because of the exiting differences between them in many areas. West African countries are low-income countries, with low domestic demand and productive capacity. They are heavily dependent on agricultural and extracting industries for their GDP. The results of our analysis show that we cannot recognize any positive shift in product diversification in ECOWAS merchandise exports to the EU. Primary commodities are the most important export items within the analysed 1995–2016 period. Their declining share in total exports is caused primarily by their declining prices in global markets.

Future trade relations between ECOWAS and the EU will be influenced not only by the Economic Partnership Agreement (after it comes into effect), but also by the future arrangements concerning ECOWAS internal matters. In June 2017, the 51st ECOWAS Ordinary Summit of Heads of State was held. It opened discussion on possible addition to this economic community of Morocco. Morocco officially declared its intention to become a full ECOWAS member and ECOWAS leaders approved its membership after deep consideration (BBC 2017). However, trade relations between Morocco and the EU have a different framework. Since 2012, Morocco–EU trade relations have been based on a free trade zone, and the negotiations concerning a deep and comprehensive free trade area were launched in 2013. Analysts also point out the possibility of Mauritania becoming an ECOWAS member. Mauritania left ECOWAS in 2000, however in May 2017 they signed an Association Agreement paving their way to very close economic relations and defining Mauritania's participation in the ECOWAS trade policy. However, also current Mauritania's trade relations with the EU are based on the same principles as those with ECOWAS. So, Mauritania should participate in the regional West Africa-EU Economic Partnership Agreement, but it has not signed it yet.

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