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Changes in the Value of Exports of Agricultural Products from Selected ACP Countries

Abstract. The process of globalization creates and stimulates the network of mutual economic and trade relations between countries through cooperation within international organizations. Export of agricultural products has a measurable and significant impact on the development of world trade, and therefore it is important to examine the changes that have occurred in exports of selected ACP countries from 2002 to 2013.

Key words: export, ACP, agriculture, food, EU

Introduction

The European Union and African, Caribbean and Pacific (ACP) countries have a special relationship, which was established in the 1960s. The EU relations with Africa date back to colonialism. It is important to understand that for the European Communities it was to preserve their zones of influence in Africa as is shown through the regulation of economic relations with former colonies directly by the Treaty of Rome. Newly established relations with these countries have become the basis for developing cooperation of the Union. In the Caribbean region, there have also been significant results on the path to increasing economic growth and bringing the society out of poverty. In 1995, only 10% of EU trade was made with the ACP countries, of which more than half of the exchange were oil, diamonds, cocoa beans, timber, coffee, copper and fruit. In 2012, exports and imports between the EU and ACP decreased to 5%.

The interesting issue of the formation and evolution of export value with selected ACP countries, may come from possible new approaches with the European Union, which plays a significant role among selected countries and may in fact shape their development in the future. There is still relatively little motion in this arena, especially when it comes to the economic aspect of these relations. Perhaps especially important is the context of a better understanding of the European Union's development policy and the further development of its trade and economic relations in this region of the world. Also, in recent years, one can observe the desire of some EU countries to rebuild a sphere of influence in ACP, as well as a tendency to strengthen the Union's policy in this region of the world. This is largely associated with the growing importance of the Eastern Partnership, whose emergence and development is associated with the last major enlargement of the Union to the countries of Central and Eastern Europe, for which the East is a historic area of interest. There is also increasing interest in the USA toward the ACP countries. Therefore, also for Poland, as a member of the Union, it is important to understand the mechanisms governing the EU's development policy, which are at present connected with trade, so that Poland can actively

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participate in and benefit from it. It may focus, as has already been mentioned, primarily on the economic aspects of the EU-ACP relationship, which indeed is the core of the relationship. It is possible to trace the evolution of African, Caribbean and Pacific countries' exports, referring to their economies as well to general theories of development. The starting point for consideration is the already mentioned developing economics. An undoubted advantage would be to show the EU's policy on development cooperation as an expression of support for developing countries and embedding these issues in theory regarding development of emerging economies. Debate by economists on this issue date back to World War II and stemmed from the ongoing dismantling of colonialism, which entailed the creation of new, mostly underdeveloped countries.

The challenge for these countries was to stimulate their own growth and the progressive processes of globalization. Historically, the relationship has not been one of pure interregionalism, as defined by Aggarwal, as the ACP Group is not a region as defined either by geography or by law (in the sense of a WTO-sanctioned regional preferential trade agreement under Article XXIV of the GATT). The ACP Group was a creation of the European Union at the time of the signing of the first Lomé Convention in 1975 and has had little presence outside of the interregional partnership, which is one of the problems for the unwieldy grouping. That the relationship is one of hybrid interregionalism caused increasing problems for the EU with the strengthening of the rules of the global trade regime when the WTO replaced the GATT. The EU has made strong efforts to bring its trade relations with members of the ACP Group back into the nest, that is, to make them compatible with WTO rules, by signing regional preferential trade arrangements with ACP sub-groupings under Lomé's successor, the Cotonou Agreement [Ravenhill 2002].

Deepening division of the world into so-called rich and poor countries led in the 1950s to the emergence of theories of development economics, which not only tries to answer the question of how the less developed countries can enter the path of rapid economic development, but also looks for the sources of their backwardness in their specific problems and conditions. In this context, the author attempts to explain the failure of the European Union in the efforts undertaken to develop these countries. Efforts that, rather than improving the economic situations in these countries, have only deepened the differences between them and the EU.

Statement of main material

One of the most important stages of economic globalization is the expansion of international trade. While some developing countries have performed well in world markets, many have struggled to become fully integrated in the world trading system. The liberalization of world trade through successive rounds of the General Agreement on Tariffs and Trade (GATT) negotiations and the establishment of the World Trade Organization (WTO), however, has created opportunities for developing countries to access developed country markets more easily. In particular, recent efforts to reduce barriers to trade in agricultural and food products, including tariffs, quantitative restrictions and other trade barriers, through the Uruguay Round, provide opportunities for enhanced export performance for both traditional and non-traditional products [Henson Loader 2001]. The selected specific objective would be to assess trends and intensify the analysis of the dynamics of exports of selected ACP countries.

The method used to elaborate the stated issue was analysis of dynamics trend. It examines the distribution of the statistical characteristics over time (here, years). Dynamic series represent the development of phenomena in time – here, export for chosen African, Caribbean and Pacific countries. In general, we can point out that the number of ACP countries is 89. The detailed list is given below. It is worth mentioning that Cuba is treated as an ACP state, by World Trade Organization methodology, but ACP countries do not recognize it as one of their members (Table 1).

Table 1. Member list of the African, Caribbean and Pacific Group of States according to WTO

Angola	Congo, Dem. Rep.	Ghana	Mali	Mozambique	Sudan
Antigua and Barbuda	Cook Islands	Grenada	Marshall Islands	Saint Kitts and Nevis	Suriname
Bahamas	Côte d'Ivoire	Guinea	Mauritania	Saint Lucia	Seychelles
Barbados	Cuba	Guinea-Bissau	Mauritius	Saint Vincent and the Grenadines	Tanzania
Belize	Djibouti	Guyana	Micronesia	Samoa	Timor Leste
Benin	Dominica	Haiti	Mozambique	Sao Tome and Principe	Togo
Botswana	Dominican Republic	Jamaica	Namibia	Senegal	Tonga
Burkina Faso	Equatorial Guinea	Kenya	Nauru	Seychelles	Trinidad and Tobago
Angola	Eritrea	Kiribati	Niger	Sierra Leone	Tuvalu
Cameroon	Cook Islands	Lesotho	Nigeria	Solomon Islands	Uganda
Central African Republic	Fiji	Liberia	Niue	Somalia	Vanuatu
Chad	Gabon	Guinea-Bissau	Palau	South Africa	Zambia
Comoros	Gambia	Malawi	Papua New Guinea	South Sudan	Zimbabwe
Congo					

Source: author's own work.

The source of the data for analyses is the official WTO Statistics Database. The time frame for the research is data chosen from 2000 to 2013. Trade relations with ACP countries is regulated by the *Cotonou Partnership Agreement*, signed in 2000. However, more recent studies of the effects of liberalization of customs duties on agricultural products from the WTO point of view, come from 2011. So we can say, that there is a lack of recent studies on agricultural goods exports from ACP countries. Furthermore, agricultural trade plays an important role as an aspect of the global trade, in the holistic approach on this issue in relation to export goods group. The quantity of examined countries will be set as nine countries, which has selection method of purposeful selection: The countries which will be examined: Angola, Barbados, Belize, Benin, Dominican Republic, Fiji, Haiti, Jamaica, Mauritius.

First, it is important to select export commodities - agricultural products. Agricultural products according to the AOA (WTO Agreement on Agriculture) definition refer to HS chapters 1 to 24 (excluding fish and fish products) and a number of manufactured agricultural products. A detailed list of the agricultural products is listed below.

Table 2. WTO agricultural products classification

01	Live animals
02	Meat and edible meat offal
03	Fish and crustaceans, molluscs and other aquatic invertebrates [EXCLUDED]
04	Dairy produce; bird eggs; natural honey; edible products of animal origin, not elsewhere specified or included
05	Products of animal origin, not elsewhere specified or included
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage
07	Edible vegetables and certain roots and tubers
08	Edible fruit and nuts; peel of citrus fruit or melons
09	Coffee, tea, mate and spices
10	Cereals
11	Products of the milling industry; malt; starches; inulin; wheat gluten
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder
13	Lac; gums, resins and other vegetable saps and extracts
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates
17	Sugars and sugar confectionery
18	Cocoa and cocoa preparations
19	Preparations of cereals, flour, starch or milk; pastry cook products
20	Preparations of vegetables, fruit, nuts or other parts of plants
21	Miscellaneous edible preparations
22	Beverages, spirits and vinegar
23	Residues and waste from the food industries; prepared animal fodder
24	Tobacco and manufactured tobacco substitutes

Source: author's own work.

After selecting which countries to analyze, we can start to construct a dynamic series for each country. The dynamics of the studied phenomenon are called the changes - increases or decreases in the phenomenon over the distinguished unit of time. For the presentation level of the phenomenon observed in subsequent periods (moments) are the ranks of dynamic. A number of dynamic is a sequence of the observed levels of a given phenomenon (X) ordered by a unit of time [Parlińska 2001]. Marking periods (moments) next numbers 1, 2, n .. n (where n is total number of periods - moments) and by xt – levels observed the phenomenon, we get a series of dynamic tabular form. Below is the example for Mauritius

Table 3. Dynamic series for Mauritius

Years	Export of agricultural products in USD	Individual indexes	
		Leaner 2000=100	chain
2000	282628135	1	*
2001	389294642	1,377	1,377
2002	475840180	1,684	1,222
2003	485175786	1,717	1,02
2004	550297928	1,947	1,134
2005	582962670	2,063	1,059
2006	656646770	2,323	1,126
2007	650240766	2,301	0,99
2008	688570440	2,436	1,059
2009	619025457	2,19	0,899
2010	704090589	2,491	1,137
2011	776310413	2,747	1,103
2012	829871600	2,936	1,069
2013	934420767	3,306	1,126

Source: own calculations.

To study the dynamics of Mauritius we use the statistical indexes. They are metrics that allow the evaluation of the changes that occur at the level of the phenomenon studied, in the analyzed periods (moments) compared with the level of phenomena in time adopted as the basis of the study. Depending on whether it is calculated for a single collective entity or entities for the team collectivises the share index of individual (straight) and aggregate (team) [Parlińska and Parliński 2011]. Example of calculations for Mauritius in Table 3.

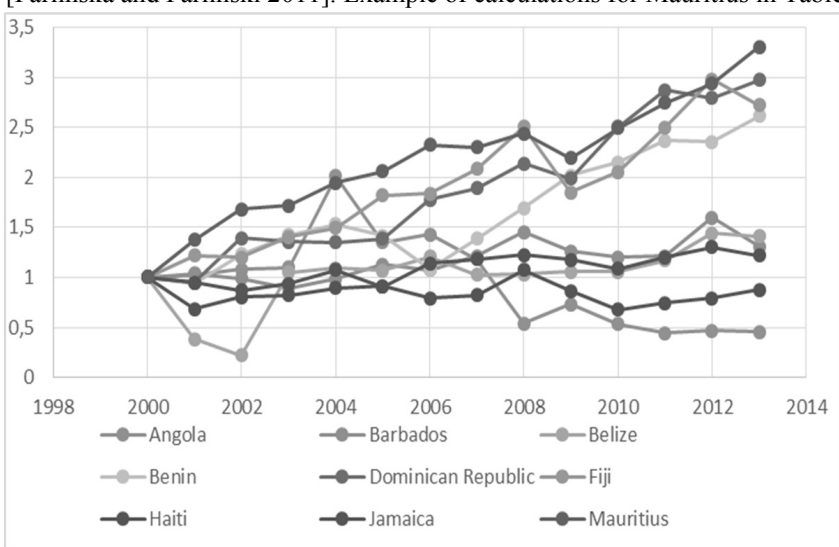

Fig.1. Changes in export of selected ACP countries Expressed by Means of Statistical Indices

Source: author's own calculations.

A string indexes chain (like a string of relative increments chain) informs us about the changing dynamics in time of observed phenomena. Then we have an important question, how to calculate the average level of change in the period considered. The proper mean here is the geometric mean G which is the root of the nth degree of product *n* observations [Parlińska and Parliński 2011].

After completing all individual indices, we are able to see how export value has changed during the time. Thus, we can point out that from simple research we are able to distinguish two groups. First, is the group associated with states that have constant rising export. By which we can recognize: Mauritius, Dominican Republic, Fiji, Benin. Second, we can describe export stagnation or downward trend. The countries describe are: Belize, Barbados, Jamaica, Haiti, Angola.

The average level of the interesting changes taking place during the relevant period (the average size of the chain index) is expressed in the formula:

$$G_n = \sqrt[n]{a_1 * a_2 * \ldots * a_n} \quad g_n = a_1 \cdot a_2 \cdot \ldots \cdot a_n \text{----------} \sqrt{n} \tag{1}$$

Therefore, we are calculating the geometric mean G for each of selected ACP countries. The Figure 2 gives a better graphical understanding of the received result.

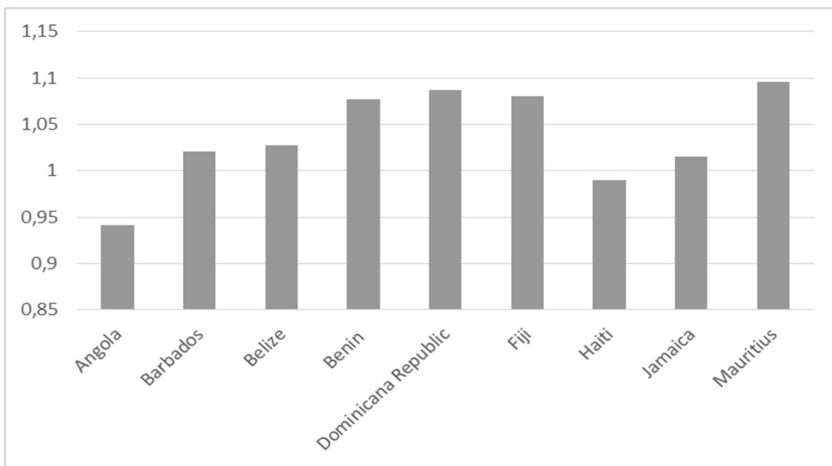

Figure 2. Comparison of the Geometric Mean for selected ACP countries

Source: author's own work.

After comparing the average rate of change in exports for selected ACP countries, we can divide them into three groups by which they have been examined.

Table 4. Grouped selected ACP countries according to the geometric mean

Group I	High dynamics trend	Mauritius, Benin, Fiji, Dominican Republic
Group II	Average dynamics trend	Barbados, Jamaica, Belize
Group III	Low dynamics trend	Angola, Haiti

Source: author's own work.

An interesting issue occurs after comparing research results when we compare the collate indices and the Geometric Mean for selected ACP countries. In the first, we can observe two groups of countries and in the second, there are three other groups. This gives us interesting feedback, with more detailed outcome.

Thus we can make a statement that Mauritius has the highest growth rate trend. If we would scope how it is possible, we would need to focus on several issues. The basis of the economy of Mauritius is the plantation cultivation of sugar cane, tea, bananas and tobacco. Mauritius accounts for 27% of the non-traditional exports identified in this study and in that sense cannot be regarded as a "typical" ACP country. However, this success is of very recent origin and until the mid-1970s, Mauritius was almost wholly dependent on sugar for its merchandise exports [McQueen 1990].

Unlike Mauritius, Benin is one of the poorest countries in the world. The economy is based on agriculture. The structure of land: arable land accounted for 21% of the country, grasslands (mostly pasture) - 4%, plantations 4%. Grown: cotton, cocoa, coffee, palm oil and coconut, corn, cassava, sorghum, millet, yam, beans and jam. Raising sheep, cattle, and goats developed mainly in the north due to the presence of the tsetse fly in the south.

Fiji is a country where the agricultural sector plays a dominant role. Agriculture is primarily focused on the production of sugar cane. Sugar is the most serious item in the balance of exports of the country. To meet the internal needs there is grown mainly rice, tobacco and coconut palm, bananas, lemons, coffee, cocoa, rubber. In animal production pig breeding is vital. Of great importance for the economy is the exploitation of valuable trees in humid equatorial forests, which cover up to 65% of the country. Fishing is also a substantial addition to the national food balance sheet. Canned fish is produced largely for export.

The Dominican Republic belongs to the group of countries less advanced in economic development. Agriculture is an important sector of the economy, and is the main source of livelihood for over one fifth of the population. The most important crops grown to meet the internal needs include corn, rice, cassava, cotton, peanuts, bananas, legumes, cocoa and coffee. The main industrial crop, grown mainly for export, is sugar cane. Animal breeding consists mostly of cattle, and to a lesser extent, pigs. Fishing also plays an important role in the national food balance.

The lowest growth rate trend is found in Angola. If we analyze land use structure, farmland occupy 2.6% of the country. Grown: coffee, sugar cane, palm oil, corn, cassava, jam, sweet potatoes, bananas, millet, cotton. Breeding is done with cattle, pigs, sheep (mostly Caracul), goats. Fishing is mainly mackerel and sardines.

The structure of land: arable land accounted for 77% of the country, grassland, mainly pastures - 9%. Sugarcane is cultivated in 80% of the area, citrus fruit, cotton, cassava, sweet potato, wheat, corn is also grown. Breeding consists of cattle, pigs, goats, donkeys and sheep. It should be remembered that islands suffer from isolation, remoteness and small size (even in the case of archipelagos), which gives these countries' economies a greater fragility [Garcia et lege 2010]. In the example of Jamaica, traditionally an important element of its economic system is agriculture, which employs almost a quarter of the economically active population. The most important crop is sugarcane and coconut palms, bananas, coffee, cocoa, citrus trees. Livestock plays a decidedly secondary role.

Belize's economy is based on agriculture and forestry. Farmland accounts for 4% of arable land, and grassland 2%. Grown: sugarcane, citrus crops (oranges, grapefruit), bananas. corn, rice, beans, yams, tobacco and marijuana illegally. There is some small

breeding of cattle, pigs, horses, and exploitation of forests (mahogany, chicle - the raw material for the production of chewing gum).

It is interesting that 66% of the population in Haiti depend on farming, supplying 30% of national income. Haitian villages are characterized by massive overcrowding and archaic methods of land cultivation. In order to meet the internal needs they cultivate yams, cassava, rice, millet, corn, beans and peas. The main crops grown in farm commodities are sugar cane, coffee, cocoa, sisal, mangoes. In vast areas of the country cultivation is possible thanks to artificial irrigation.

Conclusions

We can observe from previous elaboration that there is variation in average export growth. In examining the effects of exports on economic growth in countries which have established an industrial base, we test the hypothesis that export-oriented policies lead to better growth performance than policies favouring import substitution. This result is said to obtain because export-oriented policies, which provide similar incentives to sales in domestic and in foreign markets, lead to resource allocation according to comparative advantage, allow for greater capacity utilization, permit the exploitation of economies of scale, generate technological improvements in response to competition abroad and, in labor-surplus countries, contribute to increased employment [Balassa 1978].

Policies to promote trade, including lower tariff barriers, market-determined exchange rates, and deregulation of international trade, have created opportunities for developing countries to export agricultural commodities, both to high-income countries and to other developing countries. The lowering of import barriers in developed countries has probably facilitated the growth of high-value exports such as fish and seafood products. But perhaps more important is the fact that developing countries themselves have reduced import tariffs and moved toward market-oriented exchange rates, which increase the incentives to export. Since high-value agricultural commodities and processed foods represent a larger share of the food budget of high-income consumers, it is natural that, as farmers in developing countries shift from meeting domestic demand to meeting international demand, they also shift production from staple crops toward high-value agricultural commodities [Gulati 2005].

The rights formulated and tested by the theory of international economic relations are part of a universal nature. Common to all disciplines dealing with the economy, and partly specific to the discipline of science. The universal character is primarily classical economic theory and related principles advantage absolute and relative (comparative) determining the directions of international specialization of production. The common denominator for both of these principles is the principle of free trade considered today (with minor changes) by many economists as a basis for the development of international trade. The universal character they also have a right of determining the impact of foreign trade on national income, including the theory of the export multiplier, as well as many others depending still current, despite changing external and internal conditions.

Future changes in average rate of change can be stimulated by the program Aid for Trade. Aid for Trade (AfT) is assistance provided to support partner countries' efforts to develop and expand their trade as leverage for growth and poverty reduction. This can include support for building new transport, energy or telecommunications infrastructure,

investments in agriculture, fisheries and services, as well as assistance in managing any balance of payments shortfalls due to changes in the world trading environment. The contribution of trade for achieving inclusive growth and sustainable development is also emphasized in the EU development policy [European Commission 2015].

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