Effects of Trade on Democracy:

How does the European Union Foster Democracy in ACP-states via Trade?

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Abstract: Democratization process in developing countries is in the center of several researches and foreign policy of Western governments. Furthermore, the questions how political regimes effect on economic development and how developed states can promote democratization are still essential and base for important debate in economic and political science. At the same time, more and more studies and researchers claim that international trade can foster not only the development but also the democratization process in developing countries. In this paper we aim to analyze whether international trade can promote democracy in ACP-states due to their close trade ties with the European Union. For answering the research question a gravity model is applied with 9 indicators and with the involvement of 53 ACP-states for the period between 1995 and 2014. The results of the empirical analysis show that there is significant relationship between trade and democracy, and exports to the EU result in higher democratization in ACP-states, nevertheless, this relationship is really weak.

Key words: international trade, democracy, ACP-states, European Union

JEL codes: F13, F14, F5, P16

1 Introduction

In recent decades extremely fast globalisation process can be experienced whose central elements are increased trade flows and trade liberalisation. Effects of globalisation on developing countries have a relatively wide economic literature, and theories on globalisation investigate this question from several aspects. The fact that trade may have positive impact on economic development and growth, is an accepted judgment, though other effects of trade are also analysed nowadays.
Inter alia, more and more studies investigate the relationship between trade and democracy. According to the majority of analyses, democratic political system and democratic institutions are essential conditions for economic growth and development, thus it should be an important question how globalisation may contribute to democratic process especially in developing countries. A group of studies about this question argue that indirect relationship exists between globalization and democracy: globalization results economic development, then economic development contributes to democratization process in some countries. Others find evidence that there is a direct link between international trade and democracy and participation in free trade agreements (FTAs) may promote democratization process.

Trade as a democracy building tool appears for example in the trade policy of the USA (towards Central-American countries) and also in the trade policy of the European Union, especially in the case of ASEAN and ACP-states (in the framework of Lomé Conventions and Cotonou Partnership Agreement): they are trying to promote and foster democratization process by implementing trade preferences and free trade agreements in some of the target countries.

In our research we investigate whether and how trade would contribute to democracy building and the promotion of democratization process in developing countries. The raised questions will be analysed from the aspect of the European Union and its target countries (namely, African, Caribbean and Pacific countries) where trade is used for democratic promotion. For answer the research question, gravity model is used.

The paper is organized as follows: in Section 2 presents the links between trade and democracy, Section 3 discusses the EU-ACP relations. In Section 4 presents the method and data of our analyses and finally Section 5 summarises the results and concludes.

2 Exploring the linkage between democracy and trade

Democratization process and role of political democracy were a central issue in social sciences and policy in the past few decades, especially in the context of economic development. The majority of scholars and policy makers believe that democratic political system and institutions are essential conditions for economic growth and development. Meanwhile the fact that trade may have positive impact on development has become an accepted judgment. Inter alia, a strong relationship between developed and developing countries appears in also the financial flows and the international financial market which may effect on the currencies and the competitiveness of the developing countries (Kiss 2015). Therefore, it is evident to explore the
relationship between international trade and democracy and raises the question how international trade can promote democracy and vice versa.

The question whether democracy goes hand in hand with international trade is relevant on at least three reasons from an economist’s perspective: (1) as mentioned above, a democratic political system may be necessary to the process of development, and promoting closer economic integration may help achieve better economic outcome by building better institutions; (2) the suspected positive causal link between trade and democratic governance is a good reason for policy makers to deepen trade liberalization at both global and regional level; (3) from a long-run perspective it would be instructive to analyse whether engagement with international trade contributes to the current status of the most economically advanced democracies (López-Córdova – Meissner 2006).

It is true that there is no unique factor or single cause of democracy and democratization process, but according to some arguments, one of the most important factors is economic openness and the progression of a middle class (Acemoglu and Robinson 2000, Nottebaum 2012), and hence the linkage between democracy and trade seems to be a relevant research topic. Based on all these arguments, the purpose of this chapter is exploring the nexus between democracy and trade from the both directions: how trade can foster democratization process and how democracy affects on trade.

2.1 How can trade foster democratization?

The question of how globalization and international trade flows help to build democracy is a central issue in economic literature based on an indirect causal linkage in the past: globalization is a fundamental factor of economic development and economic development fosters democracy (López-Córdova – Meissner 2006). Nowadays, more and more researchers analyse the direct link between international trade and democracy or try to explain the relationship through different trade models. Few examples will be discussed below.

There exist several models and theories, which explain how trade relations can promote democratization process, especially in developing countries. Two of the most frequently mentioned and widely accepted theorems are the Heckscher-Ohlin and Stolper-Samuelson theorems. The Heckscher-Ohlin model is based on Ricardo’s theory on comparative advantage and consists of two countries which produce two goods; one country is relatively labour abundant and the other is relatively capital abundant – these relative endowments (labour and
capital) determine a country’s comparative advantage. A country’s comparative advantage depends on locally abundant factors of production (Nottebaum 2012). Generally, a capital-abundant country is usually more developed than a labour-abundant one, and obviously the former will produce and trade the capital-intensive good and the latter one specialize in the labour-intensive goods, thus both countries will gain from trading with each other and the abundant factor of production will benefit (Nottebaum 2012). The Stolper-Samuelson model is an extension of the Heckscher-Ohlin model, which describes a link between the relative prices of goods and relative factor of rewards, real wages and real returns of capital. The model states that a rise in the relative price of a good will lead to a rise in the return to that factor used most intensively in the production of the good, and conversely, to a fall in the return to the other factor (Nottebaum 2012).

In the context of relation between democracy and trade, the Heckscher-Ohlin-Stolper-Samuelson theorem claims that democratization should lead to more liberal trade policies in countries where workers are able to gain from free trade and to more protectionist policies in countries where workers will benefit from the implementation of tariffs and quotas (O’Rourke 2006). These factors mentioned above are very important especially in developing countries, because the rising of the working or middle class is one of the key elements in democratization processes (Diamond 1992, Gill 2000, Nottebaum 2012). As the Heckscher-Ohlin-Stolper-Samuelson theorem shows, international trade can foster democratization process via rising of middle class. Furthermore, the empirical results of these theorems show that in land scare countries tariffs are high when democracy is limited, but low when democracy is full; and in land abundant countries tariffs are low when democracy is limited, but high when democracy is extensive (O’Rourke 2006).

These trade theorem used for example in the study of Nottebaum (2012). The author – similarly to us – investigates whether trade with EU promotes democracy in ACP-states and finds positive and significant change in democracy scores in ACP-states between 1991 and 2008. Acemoglu and Robinson (2005) also approach the Stolper-Samuelson effects: the authors investigate the relationship between trade and democracy. They find globalization should improve income distribution (through Stolper-Samuelson effects for example) and should reduce political conflict and favour democratization, but they also emphasize where gains from trade accrue to an elite, perhaps in commodity exporting countries or where land is the abundant factor, increased trade could hinder the emerge of democracy.
Other aspect of the democracy-trade relationship showed by Macedo (2001): **globalization can improve governance because trade openness reduces corruption, thus it contributes to establish good governance and ultimately democracy.** López-Córdova and Meissner (2006) find that in short-term international trade does not affect significantly on democracy, but in long term, moving towards openness can improve it. Contrary to the opinions above, for example, Li and Reuveny (2003), Bussman (2001), Rigobón and Rodrik (2004) find a negative relationship between trade openness, globalization and democracy when they analysed this question empirically.

Tchouassi (2013) analyses not only the relationship between trade and democracy but the interaction between democracy, trade and development in Central-African region, namely how democracy effects on trade and development in these countries. He finds that economic development, democracy, import, export and regional integrations interact each other: for example the import affects positively on HDI and the import and democracy affect positively on development. Based on these results, it can be stated that trade liberalization and democracy are a possible drivers of economic development and **political regime can influence on the participation in international trade network** (Tchouassi 2013).

Macedo et al. (2013) also investigate that how globalization, democracy and development interact with each other for 89 countries over the period 1970-2005. Their starting point was the results of Eichengreen and Leblang (2006) who find long-term positive two-way relationships between trade, globalization and democracy. Macedo et al. (2013) show similar results: the authors generally find a clear, strong two-way relationship between globalization and development, as well as between democracy and development. However, the authors highlight that these results not likely to be uniform across time and principally space: they separated the analysed countries into two groups, OECD and non-OECD countries and they find the following evidences (Macedo et al., 2013):

- OECD countries are characterized with positive two-way relationships;
- globalization displays significant positive effects on both democracy and development, but indicates a strong negative impact of democracy on development in non-OECD countries;
- the English and Spanish colony dummies, the socialist origin negatively affects democracy; and
- in the Middle East’ and Africa’ countries have a negative impact on democracy.
2.2 How does democracy affect trade?

Democratic regimes – from the perspective both the importer and exporter countries – may affect trade through several channels, and from different aspects. First, a more democratic exporter can increase bilateral trade by improving product quality and reducing trade costs (Yu 2010). The main reason of highly democratic regime can increase trade is associated with better maintenance of the rule of law and stronger property rights protection, helping to provide better market conditions, create a fair and competitive market (Abeliansky-Krenz 2015, Barro 1996, 1999). Second, if an exporter is engaged in strong democratic institutions, the international community will trust its products (Levchenko 2007, Yu 2010). Lastly, politically free societies apply minimal restrictions on the mobility of goods and services across borders (Eichengreen-Lebalng 2006). To sum up these statements: a more democratic exporter has better institutions respecting consumer rights, food and product regulations and legal enforcement. These factors will improve product quality and reputation of an exporter country, more precisely a highly democratic exporter would be a reliable trading partner due to better product quality; thus democracy could improve product quality, and thereby helps exports (Yu 2010).

On the other hand, from the viewpoint of the importing countries, democracy does not necessarily contribute to increased trade, because democratization in the importing country may increase trade barriers and thus reduces import, but it may be true especially in developed countries (O’Rurke and Taylor 2006, Yu 2010). In contrast, if the importer is a less developed country (LDC), the impact of democracy on trade will not be the same as in a developed one. Whereas most LDC is labour-abundant as discussed above, they should import relatively capital-intensive products (because of their comparative advantages), and, a decrease in the import tariff of capital intensive good decreases the real return on capital – through the Heckscher-Ohlin-Stolper-Samuelson effect – therefore, labour will benefit from trade, not capital owners (Yu 2010).

The impact of democratization on trade may be more important when countries trade less; the benefit of democratization decreases as countries trade more (Abeliansky-Krenz 2015). In accordance with these statements, Aidt and Gassebner (2010) also establish that autocracies
trade less than democracies, but it is important to note that countries with a high trading activity are not necessarily the most democratic states in the world (Abeliansky-Krenz 2015). Empirically investigating the question how political democracy links trade and globalization, Eichengreen and Leblang (2006) find a long-term positive two-way relationship between trade and democracy, similarly to Yu (2010) who finds a robust empirical evidence that democracy can foster trade: democratization contributes 3-4% overall to bilateral trade growth. In contrast, Balding (2011) empirically analyses 150 countries between 1950-1999 to answer the question whether democracies trade more and the author finds that democracy and economic freedom does not have a significant impact on international trade, and the relationship between democracy and international trade is weak and is not robust. According to Balding (2011), the theory that democracy can increase international trade is fragile because of two reasons: democracy is a weak proxy for attributes of underlying institutions that provide well-run government, and when using more explicit measurement of what democracy means instead of broad measures, the results show that international trade is promoted by a well-managed and governed economic environment; second, the gravity equations are estimated not correctly in previous researches, thus the impact of democracy on international trade levels is overestimated.

In this section, we explored the relationship between democracy and international trade, showing both ways of the linkage between them. According to the relevant literature of this topic, trade may influence either democratization process or democratic institutions on international trade flows (Figure 1).

Although, some results show that the relationships are fragile because of many reasons but the majority opinions claim that democracy and international trade may go hand in hand. However it is important to underline that the results are not uniform: for example the effects of trade on democracy not the same for each countries or time-periods, which is beneficial for a developing country, it is not sure that beneficial a developed one, or perhaps vice versa. With regard to the developing countries trading developed states, most of studies state that it will be help to promote democratization process. This statement is analysed in this paper through EU-ACP-states trading relations, thus in the next section the EU-ACP relations will be discussed.
Figure 1 The two-way relationship between trade and democracy

Source: authors’ own construction

3 The EU-ACP relations

The EU distinguishes the developing countries and grants them preferences in different extent: the main beneficiaries are the so called African, Caribbean and Pacific (ACP) countries
(Persson and Wilhelmsson 2006). These countries could enjoy trade and other preferences granted by the four Lomé Conventions and now by the Cotonou Partnership Agreement. Although the effectiveness of the EU’s activity is widely criticized (for instance, Slocum-Bradely and Bradely 2010), these agreements seem to be a unique attempt to integrate the ACP states into the world economy.

3.1 The Lomé Conventions

The four Lomé Conventions were the first attempts of the European Union to integrate the ACP countries into the global economy. Although it was not declared at that time but these conventions belong to the EU’s development policy tool sets (Horváth 2005). The first convention was signed in 1975 and three other followed it. They expired after five years, excluding the fourth one which has a 10-year lifetime. Consequently, between 1975 and 2000 the ACP countries could enjoy great preferences in the framework of these agreements. The EU granted not only trade preferences, but interventions on other economic areas, for instance diversification and investment, as well (Babarinde-Faber 2004, Bjornskov-Krivonos 2001, Nunn-Price 2004). Trade preferences ensured the ACP countries’ free access to the European markets in a non-reciprocal way. These were complemented by the possibility of technology transfer, industrial cooperation, the free movement of capital, modernization of the economy and financial support mainly from the European Development Fund and partly from the European Investment Bank and the EU budget. These interventions were assumed to contribute to the economic and social development of the contracting ACP countries. Although the trade preferences are the key element of the Lomé Conventions, we believe that they were more than simple trade conventions, since they contained (development) elements linked to industrialization and foreign direct investments, as well as elements about financial assistance. All aimed to diversify the economy and hinder the ACP countries’ dependence on (generally agricultural) export product while enable them to decrease the risk deriving from fluctuating products price of their exported goods. Altogether the importance of the Lomé Conventions is that their two key elements, namely the trade preferences and long-term free access to the European market, were granted to the recipient countries in contractual form (Babarinde and Faber 2004, EC 1996).

Most researchers accept that the Conventions were not so effective, but without them the situation would be worse (Babarinde and Faber 2004, Persson and Wilhelmsson 2006, Udvari
Nevertheless, the relationship between the two partners has become significant: the EU has been the most significant trade partner of the Sub-Saharan African countries with having important effects on their economic development (Hinkle and Schiff 2004). At the same time, the EU-ACP trade became neither diversified nor more in volume, consequently the export-led growth in these countries did not have any sign (Curran, Nilsson and Brew 2008). After the Lomé Conventions had expired, their basic concepts have appeared in the Cotonou Agreement signed in 2000 for 20 years. However, the main challenge for the ACP countries is to meet the WTO obligations as the trade preferences under the new Agreement have to be reciprocal (Babarinde and Faber 2004, Hinkle and Schiff 2004, Meyn 2008). Consequently, the trade capacity and trading ability of these countries become more significant as they have to compete with several more developed countries. The Cotonou Agreement gives an opportunity to sign Economic Partnership Agreements which maintain the aim to integrate the ACP countries into the global economy (Curran, Nilsson and Brew 2008, Slocum-Bradely and Bradely 2010). The EU also would like to use them as a part of its development policy (Hinkle and Schiff 2004). The potential impacts of EPAs are still under analysis. Hinkle and Schiff (2004) claim that these initiatives create opportunities for African countries to integrate into the global economy. Anania (2010) emphasizes that the ACP countries are to benefit much from the EPAs regarding the banana trade. Moreover, the ACP states expressed their needs that the Aid for Trade should connect to the EPAs for helping their implementation (Meyn 2008). Consequently, trade remains an important factor in the EU-ACP relationship and in the EU’s development policy in the future. Therefore, it is important to investigate how the Aid for Trade initiative can contribute to these processes.

In the 1990s, other developing countries and the international community – mainly the USA – forced the EU to eliminate the non-reciprocal trade preferences of the Lomé Conventions to meet the obligations of the World Trade Organization (WTO). To comply with these challenges, the partner countries signed the Cotonou Partnership Agreement in 2000.

3.2 The Cotonou Partnership Agreement

The main focus and objective of the Cotonou Partnership Agreement is to promote economic, social and cultural development in ACP countries along with eradicating (Borrmann and Busse 2007, Nurse et al. 2008, EC 2010). This agreement is a milestone in the EU’s development policy and has brought several changes in the international development cooperation regarding

- in the context of the new relationship, *partnership* became an important factor (as the official name of the agreement shows);
- *political conditionality* is introduced: countries hurting human rights will be excluded from the cooperation;
- broader *political dialogue* is ensured between the partner countries, concerning the fields of development cooperation, migration, arms trade and security;
- involvement of non-governmental actors into the development processes is in focus;
- the overall objective is to decrease poverty, provide sustainable development and integrate developing countries into world trade;
- countries in most need are eligible for financial assistance, and the EU prefers *good performers*; and
- the two pillars of the EU’s development cooperation continued to be trade and aid.

As a result, Cotonou Agreement requires providing aid for the most eligible countries and for those which can use these financial resources in the most efficient way. However, there is a risk that countries which are not in the direct interest of the EU will not obtain Community assistance. Altogether, laying down conditions and aiming at reducing poverty, the new agreement complies with the challenges of international development policy, however, there are fears that partner countries may suffer some losses. Ensuring a transition period, Lomé Conventions were in effect till the end of 2007, and during this period countries should have agreed on new types of partnership, called Economic Partnership Agreements, but they failed to do so (EC 2014).

**Regarding democracy issues, the Cotonou Partnership Agreement says the following (EC 2000, p. 13):** “ACP-EC cooperation strategies shall aim at: (…) promoting institutional reforms and development, strengthening the institutions necessary for the consolidation of democracy, good governance and for efficient and competitive market; and building capacity for development and partnership”.

Regarding political dialogue, the Cotonou Partnership Agreement lays down that “*The parties are to engage regularly in a comprehensive and balanced political dialogue conducted in a flexible manner at the appropriate level in order to exchange information, establish priorities*”.
and common principles. The objectives of the dialogue include regional cooperation, conflict prevention and peaceful settlement of disputes. Through dialogue, the parties contribute to the strengthening of democracy and sustainable development” and “the dialogue will focus on specific issues such as the respect for human rights, democratic principles, the rule of law and good governance, the arms trade, anti-personnel landmines, military expenditure, corruption, drugs and organised crime and ethnic, religious or racial discrimination. The EU provides assistance for capacity building to promote democracy, transparency, improved access to justice and more efficient law enforcement procedures.”

These issues prove that the EU emphasize the importance of democracy in developing countries including the ACP-countries.

3.3 Economic Partnership Agreements

From 2002 onwards, several negotiations started between the ACP and EU partners. The main aim is to negotiate with different ACP regions in order to sign agreements which really contribute to their economic development and to foster their share in world trade (Vollmer et al. 2009, Ukpe 2010). Consequently, EPAs are not traditional trade agreements, but agreements that aim at real development through trade policy and by promoting regional integration of ACP countries1 (Szent-Iványi 2008, Vollmer et al. 2009). Its concept includes reciprocal trade preferences and free trade, though it may at the same time contain a large risk for ACP countries, as they have to ensure access for European companies to their own market – though only to a smaller extent (averagely 80 percent in 15 years) (Vollmer et al. 2009, EC 2014).

Negotiations are going forward, but several problems have occurred. As a result, though EPA negotiations should have been finished by the end of 2007, only Caribbean countries were able to conclude them (Nurse et al. 2008, Vollmer et al. 2009), while other regions signed only transition (interim) agreements aiming at gradual liberalization of merchandise up to 80-95 percent in the next 15-20 years, but the EU ensures ACP countries free access to European markets (Table 1) (Szent-Iványi 2008).

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1 In Africa the overlapping integration process hinders deep integration (Shams 2005).
### Table 1: Rate of market opening and deadline in the ACP regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of agreement</th>
<th>Rate of market opening (%)</th>
<th>Deadline (within years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean</td>
<td>final</td>
<td>61</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>82.7</td>
<td>15</td>
</tr>
<tr>
<td>East African Community</td>
<td>interim EBA</td>
<td>64</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>82</td>
<td>25</td>
</tr>
<tr>
<td>Eastern and Southern Africa</td>
<td>interim EBA</td>
<td>differs among members from 80 to 97</td>
<td></td>
</tr>
<tr>
<td>Southern Africa</td>
<td>interim EBA (Angola)</td>
<td>86</td>
<td>2</td>
</tr>
<tr>
<td>Pacific: Papua New Guinea, Fiji</td>
<td>interim EBA</td>
<td>88 (PNG)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80 (Fiji)</td>
<td>15</td>
</tr>
<tr>
<td>Central Africa</td>
<td>bilateral (Cameroon) EBA</td>
<td>80</td>
<td>15</td>
</tr>
<tr>
<td>West Africa</td>
<td>bilateral (Ghana and Cote d'Ivoire) EBA</td>
<td>70 (CI) 80 (Ghana)</td>
<td>15</td>
</tr>
</tbody>
</table>

*Note: EBA stands for Everything But Arms initiative*

*Source: author’s own construction based on Vollmer et al. (2009)*

Several reasons may be listed why the Economic Partnership Agreements could not be concluded in time. Szent-Iványi (2008) and Ukpe (2010) argue that the largest problem is the lack of confidence and growing scepticism towards the European Union: ACP countries do not trust the EU any more. But the main economic risks of EPAs for ACP countries are the following (Szent-Iványi 2008, Boysen and Matthews 2009, Vollmer et al 2009, Ukpe 2010):

- economic structure of ACP countries cannot adjust to the new circumstances on time because of the problematic supply side capacity;
- decreasing income from tariffs leads to the postponement of development projects;
- regional integrations have trade creating and trade diversion effects, consequently, countries may not gain the same results from a regional integration;
- the new competition that arises with the appearance of European products may deteriorate companies in ACP countries;
- interim agreements concluded so far may hinder the regional integration process between African countries;
- the significant agriculture subsidy in European agriculture may cause losses in the agricultural exporting countries (and they face unequal competition);
- referring to sanitary regulations, the EU may not let in ACP agricultural export;
- the six regions export mainly natural resources: diamond, mineral oil and palm oil, which account for more than 40 percent of the regions’ exports;
- there are regulations which unambiguously serve the interests of the Community (for instance, the protection of intellectual property, trade in services, or investment).

There are many studies investigating the potential effects of EPAs on welfare and trade promotion, though their results are mixed because of the trade creation and trade diversion effects (ODI 2006). Regarding the welfare impacts of EPAs on African countries, the EU would gain the most on this business, and the expanded trade is the consequence of trade creation and trade diversion from the rest of the world, as well (Karingi et al. 2005; Vollmer et al. 2009). Furthermore, African countries are likely to face a decrease in government revenues owing to tariff reduction (or elimination). This requires higher adjustment costs (tax reforms, administration changes) that African countries need to pay, on the one hand, and which jeopardizes African development, on the other hand (Karingi et al. 2005). However, there could be some African countries which will enjoy positive effects of tariff reduction and the EPAs provide more preferences than the simple GSP scheme (Vollmer et al. 2009) but only countries with a high quality institutional system can benefit from the economic changes arising during the EPA-era (Busse and Grossman 2007). Altogether, researchers (Busse and Grossman 2007, Fontagné et al. 2008), Vollmer et al. 2009) agree that complementary reforms should be implemented before EPAs come into force, otherwise African countries may become the largest losers of these free trade agreements.

4 Empirical analysis of how European Union foster democracy in ACP-states via trade?

As the previous sections presented, two-way relationship may exist between international trade and democracy: trade can promote democratization process and democratic regimes can increase international trade flows. Recognizing this fact, more and more developed states believe in power of international trade and try to promote democratization process via trade. Inter alia for the European Union promoting development and democratization in third countries has become a priority since 1990’s and agreements with developing countries include the expectation of the respects of these values (Nottebaum 2012). One of the groups of developing countries with the EU has trade agreements are ACP-states as the previous section presented.
The purpose of the study is to analyse whether trade with the European Union can increase the level of democracy in ACP-states. To attain this objective, a gravity model is used for 53 ACP-states and with 9 indicators between 1995 and 2014.

4.1 Selected countries and indicators

During the selection of indicators, our main objective was finding variables which are closely related to our research question, namely how trade can effect on democracy and primarily the relevant literature helped to achieve this purpose. As a result, we used data on the following variables:

- **Democracy score** as a depended variable. For measuring democracy, we use Polity IV data set which is one of the most widespread sources in the literature for measuring democracy. It is a combined polity score computed by the autocratic and democratic scores of a country; the scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).

- **Export of ACP countries** into the European Union and **trade openness** of ACP-states which variables related to trade relations with the EU and the participation in international trade network. Trade openness is the sum of exports and imports divided by the GDP. Trade data were collected from UNCTADStat database.

- **GDP and GDP per capita** which were collected from World Bank Database. GDP is closely related to development, and also to the development of democracy (Nottebaum 2012) and GDP per capita can be a proxy for poverty in ACP-states.

- **Landlocked** and **small island developing country** (SIDS) status of ACP-states as dummy variables. These geographic factors could influence trade relations and the process of development and also democratization. These data were collected from UNCTAD and CEPII.

- The **oil exporter** status of ACP-states as dummy variable. The data were gained from the CIA World Factbook database.

- **Geographical distance** between the European Union and ACP-states. Distance between two countries can largely influence trade and it is a fundamental variable of all gravity models as a proxy for trade costs. In our analysis the European Union was represented by Germany, so the distance is determined between Germany and the developing countries concerned. The data were collected from CEPII.
We aimed to involve as many ACP-states as possible in our analyses, but unfortunately, we had to exclude 26 from 79 ACP-countries because of lack of data. As a result, 53 ACP-states were involved into the empirical analysis for the period of 1995 and 2014.

4.2 Methodology

The aim of the investigation is to analyse whether trade with the EU can contribute to the democratization process of ACP-countries. For this purpose, a gravity model was performed. Gravity models are appropriate methods to investigate trade flows (Carey et al. 2007), and assume that trade is positively affected by the income of the partner countries and negatively affected by their distance as the proxy of transport costs (Africano and Magelhães 2005). However, generally, gravity models estimate trade flows, in our case, a gravity model is used to test how much trade flows contribute to democratization. The specification in present paper was based on the work of Nottebaum (2012) with slight modifications:

\[
Dem_i = \beta_0 + \beta_1 \ln Y_{i,t-1} + \beta_2 \ln Yc_{i,t-1} + \beta_3 \ln Dist_{i,eu} + \beta_4 \ln trade_{op_{i,t-1}} + \beta_5 Landlocked + \beta_6 Oil + \beta_7 SIDS + \beta_8 \ln eu_{exp_{i,t-1}} + \varepsilon,
\]  

- \(Dem_i\) denotes democratization level in \(i\) developing country;
- \(Y_{i,t-1}\) is the total GDP in country \(i\) in year \(t-1\) referring to the market size;
- \(Yc_{i,t-1}\) denotes GDP per capita in country \(i\) in year \(t-1\) showing the income level in the country;
- \(Dist_{i,eu}\) means the distance between country \(i\) and the European Union (here, Germany was used as a reference country);
- \(Landlocked, Oil, SIDS\) are dummy variables for landlocked, oil exporting-countries and small island developing countries, respectively, where zero means that country \(i\) does not belong to this group;
- \(eu_{exp}\) refers to export value of country \(i\) into the EU.

The original model contained some pieces of information on colonial past but this variable does not have significantly different content in our investigation: almost all selected countries were a colony of any of the EU member states. The same problem occurred in the case of WTO-
membership: more than 90% of our sample countries are members of the World Trade Organization, therefore there is no sense to involve this indicator into the model, though it was one variable in the original model. As a result, we left these two indicators out of our model. Regarding distance as an independent variable, Germany was chosen as a reference country to determine the distance between country \( i \) and the EU. As in present analysis the EU is considered as an integrated whole, a fix point was needed to which the distance of sample countries could be related. The mean of the nearest and furthest points could have been another potential point of reference, but it resulted in different ‘capital’ for the EU, therefore this solution was rejected.

Handling endogeneity problems of regression models and give an economic sense to our model, the independent variables are lagged by one year. We follow the method of Nottebaum (2012). We assume that the performance in the previous year determine the democratization level of the following year. Autocorrelation was tested by Durbin-Watson test, while multicorrelation was checked with VIF. If the result of Durbin-Watson is around 2, we can accept the model without any distorting effects of autocorrelation, while in the case of VIF, value below 5 is totally acceptable.

### 4.3 Results

Before going into details and conducting the regression model, we performed a correlation analysis to investigate whether there is relation between the dependent and independent variables or not (Table 2). The results indicate that there is significant relationship, but this relationship is really weak.

The results of the correlation analysis strengthened that it is worth to perform the regression model we introduced in the previous chapter. We built up three models with involving the variables continuously into the model (Table 3). According to the ANOVA results, the models can be appropriate to describe the process but regarding the \( R^2 \) the level of explanation is very low: only 20 percent of the differences of democratization level could be explained by the variables we involved into the model (in similar studies, the \( R^2 \) is relatively low).
Table 2 Correlation between democracy (dependent variable) and the independent variables

<table>
<thead>
<tr>
<th></th>
<th>EU_Export</th>
<th>GDP</th>
<th>GDP_capita</th>
<th>Trade_OP</th>
<th>Distance</th>
<th>Landlocked</th>
<th>SIDS</th>
<th>Oil_Export</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlation</strong></td>
<td>.166</td>
<td>.126</td>
<td>.205</td>
<td>.097</td>
<td>-.073</td>
<td>.051</td>
<td>.152</td>
<td>.087</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.002</td>
<td>.026</td>
<td>.017</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>1067</td>
<td>1067</td>
<td>1067</td>
<td>1067</td>
<td>1067</td>
<td>1067</td>
<td>1067</td>
<td>1067</td>
</tr>
</tbody>
</table>

Source: own calculation

Table 3 Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.293</td>
<td>.088</td>
<td>.085</td>
<td>20.64535</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.410</td>
<td>.168</td>
<td>.103</td>
<td>19.74919</td>
<td>1.807</td>
</tr>
</tbody>
</table>

Source: own calculation

Regarding the coefficients, we can say that most of the included variables are significant – especially in the second and third model. Altogether we can say according to our sample that the larger and more open a country is, the higher the democratization is. A bit surprisingly, landlocked and small island developing countries are more democratized that countries which do not belong to this group. Furthermore, oil exporting countries are less democratized. From our point of view, exports to the EU result in higher democratization.
Table 4 Coefficients (dependent variable: democracy)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-21,622</td>
<td>22,302</td>
<td>-970</td>
<td>.333</td>
<td>.329</td>
</tr>
<tr>
<td>gdp_capita</td>
<td>4,938</td>
<td>5,115</td>
<td>.266</td>
<td>8,018</td>
<td>.000</td>
</tr>
<tr>
<td>trade_op</td>
<td>1,921</td>
<td>1,140</td>
<td>.069</td>
<td>1,685</td>
<td>.097</td>
</tr>
<tr>
<td>distance</td>
<td>-2,977</td>
<td>2,328</td>
<td>-.050</td>
<td>-1,279</td>
<td>.201</td>
</tr>
<tr>
<td>eu export</td>
<td>560</td>
<td>502</td>
<td>.041</td>
<td>1,156</td>
<td>.240</td>
</tr>
<tr>
<td>2 (Constant)</td>
<td>-42,280</td>
<td>22,696</td>
<td>-3,625</td>
<td>.000</td>
<td>.557</td>
</tr>
<tr>
<td>gdp_capita</td>
<td>5,237</td>
<td>694</td>
<td>.282</td>
<td>7,543</td>
<td>.000</td>
</tr>
<tr>
<td>trade_op</td>
<td>4,228</td>
<td>1,137</td>
<td>.152</td>
<td>3,718</td>
<td>.000</td>
</tr>
<tr>
<td>distance</td>
<td>624</td>
<td>2,306</td>
<td>.010</td>
<td>.271</td>
<td>.787</td>
</tr>
<tr>
<td>eu export</td>
<td>2,933</td>
<td>543</td>
<td>.046</td>
<td>4,276</td>
<td>.000</td>
</tr>
<tr>
<td>landlocked</td>
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<td>1,589</td>
<td>.158</td>
<td>4,868</td>
<td>.000</td>
</tr>
<tr>
<td>SIDS</td>
<td>9,575</td>
<td>2,130</td>
<td>.159</td>
<td>4,495</td>
<td>.000</td>
</tr>
<tr>
<td>oil_exp</td>
<td>-10,319</td>
<td>1,589</td>
<td>-.216</td>
<td>-6,483</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: own calculation

5 Conclusion

The purpose of this study was to investigate whether international trade can promote democratization process in developing countries. To answer the question, the trade relations between ACP-states and the European Union were analysed between 1995 and 2014. In current paper we applied a gravity equation method involving 9 different variables into our model. As the results indicate, there is significant relationship between democracy and trade and the other variables, but these relationships are really weak, the explanatory power of regression is only 20 percent. Furthermore, based on our result, we can highlight some concluding remarks: first, the larger and more open a country is, the higher the democratization is; second, a bit surprisingly, landlocked and small island developing countries are more democratized than countries which do not belong to this group, and oil exporting countries are less democratized. Finally, from our point of view, one of the most important statements is that ACP-exports to the EU result in higher democratization in ACP-states.

Altogether, our results are relatively consistent with the literature saying international trade play an important role in promoting democracy in developing states. These ideas and results should drive developing countries to involve heavily themselves to international trade networks and developed one to support them by trade because it seems that international trade can foster not only economic development but also the emergence of democratic regimes. These two factors may be essential in developing countries to bridge the gap between developed and least developed states.
References


