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**THE AID FOR TRADE INITIATIVE AND THE EXPORT  
PERFORMANCE OF THE IBERIAN EU-COUNTRIES**

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# The Aid for Trade initiative and the export performance of the Iberian EU-countries

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# The Aid for Trade initiative and the export performance of the Iberian EU-countries<sup>1</sup>

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## Abstract

As a result of the global economic crisis and crisis in the EU, Iberian exports have been temporarily directed towards other regions such as Africa or Asia, meaning that developing countries have gained larger share in their trade. Nevertheless, trade performance of EU Members is influenced by several EU policies directly or indirectly. Among others, industry policy and international development cooperation policy may have impact on it. Regarding the European international development cooperation development policy, the Aid for Trade (AfT) initiative has a crucial role aiming to improve the supply side capacities in recipient countries. Its overall objective is to help developing countries participate in international trade more effectively. According to Udvari (2013), Aid for Trade assistance provided by the EU generally increases trade between the EU and the recipient countries: 1 percent growth in AfT provided by the EU increases trade 0.1 percent between the EU and the recipient countries. However, there is no information how this increase is distributed among the EU Members, and whether the larger colonizers are in a better position or not. Consequently, **this research aims to respond the question how Aid for Trade initiative influences the trade performance of Spain and Portugal.** The research – besides analysing the existing literature – is based on an empirical investigation using a gravity model. The results show that Aid for Trade provided by the EU to ACP-countries have a small significant impact on the exports of Spain and Portugal.

*JEL:* F14, F35

*Keywords:* Aid for Trade, export performance, Spain, Portugal

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## 1 Introduction

Since the 70s, economic literature has been dealing with the role of exports in economic growth. Export orientation undoubtedly proved to be successful in several countries, while in others growth was based on domestic factors. The international

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*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

recession after 2008 increased the importance of exports as a source of economic growth again in the European Union member countries.

As a result of the crisis in the EU, a part of Iberian exports have been directed towards other regions such as Africa or Asia, meaning that developing countries have gained larger share in their trade. Nevertheless, the EU Members' trade performance is influenced by several EU policies. Among others, industry policy and the development policy may have impact on it. Regarding the EU's development policy, the Aid for Trade (Aft) initiative has a crucial role. Aid for Trade is an international initiative emerged in the framework of the World Trade Organization in 2005. The EU prepared an own Aft strategy in 2007 and tries to put it into its development cooperation program. The initiative aims to improve the supply side capacities of the developing countries. The overall objective is to help developing countries participate in international trade more effectively. Although Aft is a new type of aid activity, the empirical literature on its potential effects on trade costs (e.g. Cali and teVelde, 2011; Naito, 2010) and export expansion (e.g. Helble et al., 2009; Bearce et al., 2013; Moreira, 2010; Pettersson and Johansson, 2011; Vijil and Wagner, 2010) are going to positive directions. Furthermore, Bearce and co-workers (2013) present that besides trade expansion of developing countries, exports of the USA as donor increased too owing to the Aft. As the EU has wide relationship with developing countries, Member States can gain additional trade too. According to Udvari (2013), Aid for Trade assistance provided by the EU generally increases trade between the EU and the recipient countries: 1 percent growth in Aft provided by the EU increases trade 0.1 percent between the EU and the recipient countries. However, we do not have information how this increase is distributed among the EU Members, and whether the larger colonizers are in better situation or not. Consequently, this research aims to respond the question how Aid for Trade initiative influences the trade performance of Spain and Portugal.

The research – besides analysing the existing literature – is based on an empirical investigation. The gravity model (where the dependent variable is extra-trade, and the independent ones are GDP, GDP per capita, distance and Aid for Trade and some dummy variables) covers the period of 2002-2014. As a result of the analysis, we can gain information how the export performance of Spain and Portugal was influenced by the

Aid for Trade activity of the EU and of their own. In more general, how an EU's policy could influence the trade performance of these Member States.

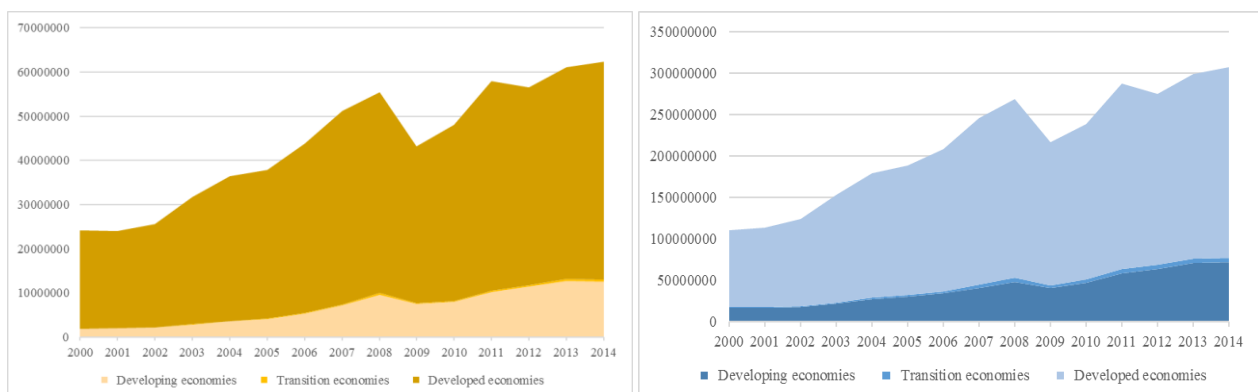
The structure of the paper is as follows. The next section details the changing trade relations of Spain and Portugal with developing countries, then an introduction to Aid for Trade is presented. After it, the empirical analysis is detailed emphasizing the results of the applied models.

## **2 Changing trade relations with developing countries**

In this part we introduce how trade relations of Spain and Portugal changed. The emphasis will be based on the analysis of the change of focus owing to the crisis of 2007/2008. In this part, we detail the trade relations and aid relations of these two nations.

According to UNCTADStat (2016) data, both the Portuguese and Spanish exports have continuously been increasing from 2000 onwards (Figure 1), but there were cuts after the 2007/8 crisis: in the case of Spain, this decrease was 19.5%, while in Portugal exports decreased by 22.3%. Both countries prefer developed countries to other country groups (which is not so surprising because their trade with EU-countries is high) but we can experience a growing role of developing countries in the exports of both Spain and Portugal.

*Figure 1* Portuguese (left) and Spanish (right) exports to country groups, 2000-2014 (thousands of USD)



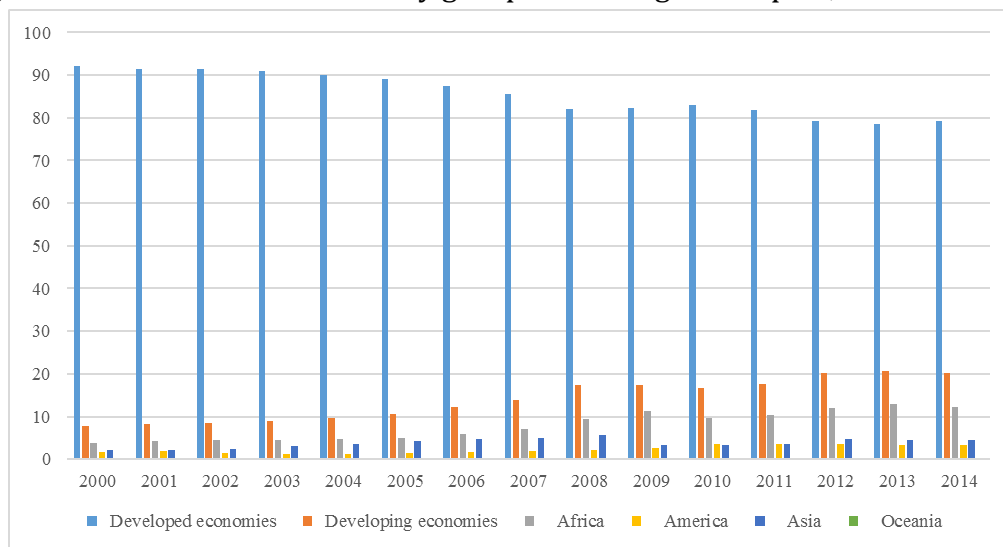
*Source:* UNCTADStat (2016)

The growing role of developing countries can be realized if we analyse the share of different country groups of the total trade of the Iberian EU-countries (Figure 2 and

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

Figure 3). Looking at the data of Portugal (Figure 2), we can see that in 2000, Portugal exported less than 10% of its total exports to developing countries while developed countries enjoyed more than 90%. These shares have changed during the years: developing countries reached 20% of the total Portuguese exports. However, this increase is uneven between the different continents: the main trading partners of Portugal among developing economies are the African countries (12% of total trade in 2014) happened, then come the Asian and American countries with 3-4% in 2014.

*Figure 2 Share of different country groups of Portuguese export, 2000-2014 (%)*



*Source: own calculation, UNCTADStat (2016)*

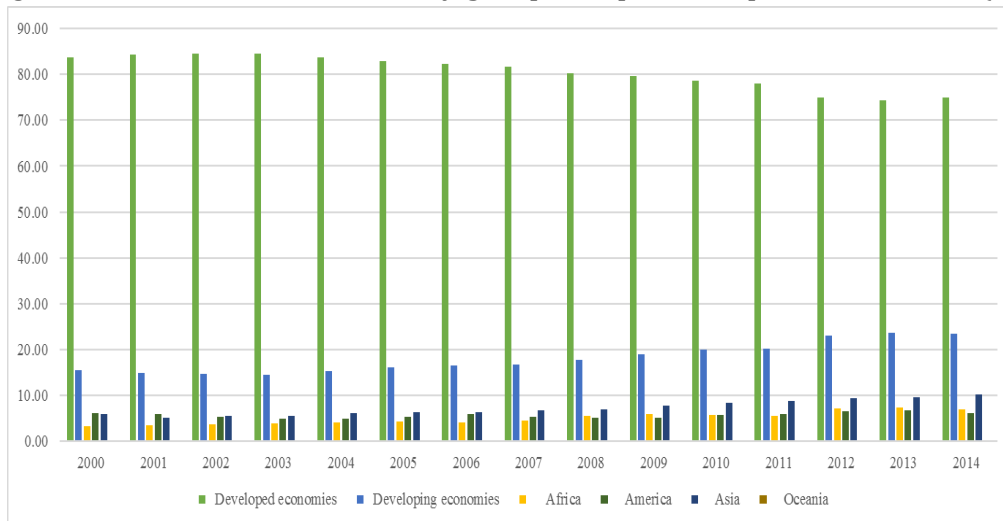
Regarding Spain, similar trend can be noticed: during the years, developing countries gained more role in the Spanish exports (Figure 3). However, there is a significant difference between Spain and Portugal: in the case of Spain, developing economies were more important in 2000 than in Portugal, hence Spain exported ca. 16% to developing countries of its total exports (it is double than the Portuguese value). Although the base value is higher in Spain than in Portugal, similar increase can be experienced in Spain, too: developing countries reached more than 23% of the total Spanish exports by 2014. It is still 3 percentage point higher than the Portuguese value. As for the continents, Asia is dominant nowadays (10% of the total Spanish exports are directed to these countries), while Africa and America have similar values (6-7% of the total Spanish exports).

Altogether, we can see from these figures that after the crisis, both countries attempted to promote exports and the role of developing countries is continuously

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

increasing in both nations. As Moreira (2015) detailed, new export markets were essential for the Portuguese economic recovery, but – looking at the figures detailed above – we would add that Spain needed it, too. This can be one reason why developing countries gained more space in the trade of these Iberian countries. We must add that this is not a new thing. For example, in Portugal economic growth was caused by inward FDI and exports in the period of 1977-2004 (Andraz and Rodrigues 2010).

*Figure 3 Share of different country groups of Spanish export, 2000-2014 (%)*



*Source: own calculation, UNCTADStat (2016)*

The need for export promotion in both Spain and Portugal resulted in the fact that structural reforms were implemented in order to increase the competitiveness and productivity and to decrease external debt of these countries (Arnold 2015, EC 2016a). External debt caused more problems in Portugal (EC 2016a), but the current account surplus in Spain is due to the decreasing oil prices resulting in cheaper imports for Spain (EC 2016b). In Spain, for instance, so-called regional export promotion offices were settled in order to promote Spanish exports (Gil-Pareja et al. 2015). As a result, Spain seems to be in a better position with stronger export performance than Portugal, and “Spanish export miracle” exits after the collapse of trade during the global crisis of 2007/8 (Eppinger et al. 2015).

Trade flows are determined by a lot of factors. For instance, innovation and investment and a cut in internal barriers (Correai and Gouveia 2016); price elasticity in the target country compared to the other euro area countries (Cabral and Manteu 2013); export variety in the case of technology advanced sectors (Rebelo and da Silva 2013).

Nevertheless, one should remember that Portugal and Spain are members of the European Union, therefore policies of the EU have large impact on their trade performance. These policies include, for example, trade policy, innovation policy, environment policy or international development cooperation policy. This latter one refers to, among others, aid activity of the European Union and its Member States. Among different types of aid, we can find the so-called Aid for Trade (AfT) as a relatively new initiative aiming to promote export of developing countries and to improve the supply-side capacity of underdeveloped countries to be able to participate in international trade more effectively. Although AfT aims to increase the exports of developing countries, there are studies which show that not only developing countries but also developed countries gain from this financial assistance. Therefore, it is worth to analyse more deeply this initiative and to investigate how the AfT activity of the EU influences trade performance of the Iberian countries.

### **3 The Aid for Trade initiative**

Developing countries have strong relations with developed countries which appear in the form of financial flows and this may have impacts on the exchange rates of developing countries (Kiss 2015). Since many countries were unable to follow the liberalization process and to adjust to the new international trade environment, the World Trade Organization (WTO) launched the Aid for Trade initiative in 2005. AfT may be essential for developing countries, since they would be the main losers if Doha Round fails (Abbott et al. 2009, Deardorff and Stern 2009).

The programme aims to help developing countries *expand* their exports, *participate* in the multilateral trade system more effectively, and also *benefit* from liberalisation. In order to meet these goals, *six areas of financial assistance* were determined (WTO 2006): *trade policy and regulation; trade development; trade-related infrastructure; building productive capacity; trade-related adjustment; and other trade-related needs*. As a result, the primary objective of AfT is to improve the supply-side capacity (Hallaert and Munro 2009), which may lead to the development of the business environment. And business environment with high quality is essential to enjoy positive effects of participating in international trade (Freund and Bolaky 2008, Dreger and Herzer 2011). However, the



*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

program has also been sharply criticized: though AfT aims to support the least developed countries, there are empirical evidences showing that in practice aid allocation does not follow this expectation (Udvari 2011, Uhrin and Schuszter 2013). For instance, the European Union has implemented more AfT projects in China (as one of the largest exporters in the world) than in Sub-Saharan Africa (Udvari 2013).

Although AfT belongs to the financial assistance group, its economic impacts seem to be more spectacular and persuasive than the effects of general development assistance, but the overall evaluation is mixed (Haynes and Holden 2016). According to the official documents, it is not expected that AfT would behave as a tied aid, that is, recipient countries do not have to follow the conditions of donor countries. However, relevant literature analysing the potential impacts of AfT assumes this statement. Studies discussing these impacts can be grouped as follows: studies which analyse the impacts of AfT on export volumes regardless of donors (Cali and te Velde 2011, Pettersson and Johansson 2013); or studies which investigate the impacts of AfT provided by a donor on trade between the recipient and the donor (Bearce et al., 2013; Udvari, 2013; Uhrin and Schuszter, 2013). Furthermore, only few studies have dealt with the European Union's AfT-activity. Udvari (2013) showed with a gravity model that AfT provided by the EU might cause trade expansion between donors and recipients, though in her analysis total trade (sum of exports and imports) was the dependent variable. Consequently, these results may be distorting as her model does not answer the question whether AfT contributes to export or import expansion in developing countries, that is, which party (the EU or the developing countries) gain more. In her later study, Udvari (2014) showed that trade expansion between the EU and the ACP countries is due to the old EU member states.

Cali and te Velde (2011) analysed the export volume changes by involving 100 developing countries in their empirical investigation. According to their econometric results, AfT assistance on the development of economic infrastructure results in growing exports. Pettersson and Johansson (2013) have similar results: supporting the development of trade infrastructure results in export growth, however, the authors do not give as large emphasis to AfT as Cali and te Velde (2011) did. Helble et al. (2009) found the assistance on trade policy as a significant factor: one percent growth in trade

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

policy aid results in 818 million USD trade expansion worldwide. Bearce et al. (2013) narrowed their analysis to the aid activity of the USA. Their results indicate that one dollar growth in AfT results in 65 dollar trade expansion in the recipient country, but this impact may be higher in countries most in need (poorer, landlocked). Vijil and Wagner (2010) found that 10 percent growth in aid for improving trade infrastructure results in 1.22 percent growth of the recipient's export. Regarding trade costs, Lanz et al. (2016) and Melo and Laurent (2016) showed that AfT may contribute to decrease the very high trade costs of both merchandise and services trade.

Furthermore, Vijil (2013) analysed how AfT may contribute to economic integration. According to her results, AfT has positive effects on both South-South and North-South integrations. However, there is no answer how AfT influences intra-trade within an integration. Huchot-Bourdon et al. (2009) analysed these processes in another way. They analysed the relationship between FDI, trade and development, and they created groups of developing countries reflecting the different needs developing countries have and determining the priorities of recipient countries to help donors in their aid allocation. Their results indicate that trade-related needs, especially infrastructure development, are more highlighted in East and West Africa. Consequently, Aid for Trade may have significant effects in the region's development process, including the integration process, too. Nevertheless, AfT impacts on integration process is still not proved. For example, the empirical results of Udvari and Kis (2014) proved that AfT provided to the member countries of the Economic Community of West African States (ECOWAS) does not have significant impact on expanding intra-integration trade.

Some empirical analyses (Udvari 2013, Uhrin and Schuszter 2013) justify the claim that though AfT has several good objectives, economic, political and strategic interests are more important for donor countries than real needs. For example, Iraq and Afghanistan are among the most supported countries. Or in the USA's aid policy, the USA's own interests are the most important factor. All these may hinder the effectiveness of AfT. This may be proved by the followings. There are studies investigating the effects from a donor's perspective. These analyses may be more reliable since the good performing countries would not cover the less good performing countries' achievements (or vice versa). Brayzs (2013) dealt with four donors (USA,

Japan, Germany and Norway) in four recipient countries (Indonesia, Philippines, Timor-Leste and Vietnam). The author stated that the AfT had different impacts depending on the donor and the recipient. Another example is the study of Bearce et al. (2013) in which it is proved that the US exports are growing due to AfT assistance! This statement refers to the fact that aid activities (including AfT) need to be analysed in a donor-specific way.

Effects of AfT may appear not only in trade expansion, but in investments, too, as Lee and Ries (2016) emphasized. Their argument shows that improvement in the business environment, supply-side capacity and development, and decreasing trade costs may attract more greenfield investments in the recipient countries. Altogether, AfT may contribute to the development of recipient countries through direct and indirect channels. Furthermore, it is worth to investigate whether the better business environment and better position in international trade result in more imports in developing countries or not. To respond to this question, the Aid for Trade provided by the EU and the trade between developing countries and Spain / Portugal are taken into consideration. The EU is one of the largest donors and provide relatively high amount of AfT to developing countries and we could see that AfT results in more trade between developing countries and old EU member states. Furthermore, we could see that developing countries have growing role in the exports of these Iberian countries. So the question is: has AfT any impact on this process?

#### **4 Effects of AfT on the exports of Spain and Portugal**

This section details the methodology and the results of the empirical analysis concerning the trade expansion impacts of Aid for Trade provided by the EU. First, the process of selecting recipient and donor countries and indicators is detailed including the measurement questions of Aid for Trade. Then, the gravity model is discussed followed by the analysis of the results.

##### ***4.1 Countries and indicators***

As a first step, potential recipient and donor countries were selected. The goal was to involve as many developing (recipient) countries as possible into the analysis. Out of the

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

123 developing countries in the world<sup>3</sup>, 78 countries were involved – out of them 39 countries belong to the ACP group<sup>4</sup>. 29 countries are least developed countries<sup>5</sup>, and out of them 24 belong to the ACP block. The remaining developing countries were left out as there was no available data regardless whether they received any AfT assistance from the EU or not between 2005 and 2012.<sup>6</sup> The most recent available data were used in the empirical analysis.

In the centre, the analysis of export performance of Portugal and Spain stands. Trade data were collected from the UNCTADStat database and cover the years between 2006 and 2013. Calculating Aid for Trade was a bit complicated, we had to decide the donors and how to calculate the total amount of AfT:

- 1) **Donors:** the OECD's Development Assistance Committee was the starting point. All old EU member states (EU-15) are members of this organization, and since 2013, three new member states (Czech Republic, Slovenia, Slovak Republic) have become members, too. Since the analysis covers the aid activity in the period between 2006 and 2012, the donor activity of the EU-15 was considered as the entire EU's donor activity. This cannot have a distorting effect, as the EU-15 has experience in development policy and has built up a widespread aid activity, while NMS have less relationship with developing countries.<sup>7</sup> Furthermore, *Article 210* of the Lisbon Treaty also supports this approach, as it says that in order to establish a more effective development policy, member states and the community work together and harmonize their development activity in the scene of international organizations. As a result, the EU's donor activity is in fact the sum of the EU-15's activity and the aid data of EU Institutions.

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<sup>3</sup> There are 144 low and middle income countries (generally developing countries), but some of them are the so called transition economies (see UN 2011). These countries were left out.

<sup>4</sup> ACP countries refer to African, Caribbean and Pacific countries. Most of them were former colonies of any of the EU member states, and by now the EU has built up special relation with these countries, see, for example, the Lomé Conventions or recently the Cotonou Partnership Agreement.

<sup>5</sup> Least developed countries were determined according to the list of the United Nations (UN OHRLLS 2016).

<sup>6</sup> Although there are several statistical methods to overcome the missing data problem (see, for instance, Sávai and Kiss 2016), we decided to take these countries out of the analysis because of the large proportion of missing data which likely could cause distortions in the analysis.

<sup>7</sup> List of both the recipient and donor countries can be found in the Appendix.

2) **Total amount of AfT:** Calculating current Aid for Trade trends, recommendations of Turner (2008) and OECD-CRS (2016) were followed. According to them, AfT amounts are equal to the sum of assistance on several sub-sectors on which the OECD collects data. Both commitments and disbursements were available to analyse, but disbursed aid was used as basis for calculation, as this amount covers already paid amounts. In this analysis, the following sectors appeared as the sum of AfT:

- *Trade related infrastructure* appears in the OECD database as *economic infrastructure* containing the subsectors of transport and storage; communications; and energy supply.
- The categories of *building productive capacity* and *trade development* appear in the OECD database as *building productive capacity* and consist of three subcategories: bank and financial services; business and other services; agriculture and industry.
- The category of *trade policy and regulations* is the same in the OECD database.<sup>8</sup>

A cross-sectional analysis was prepared because of the short (official) existence of Aid for Trade. Data were collected for the years between 2005 and 2013 (the official existence of Aid for Trade), but in order to handle the endogeneity problem (which will be discussed later), there was a one-year-lag in the case of independent variables. The trade and GDP data originated from the on-line database of UNCTADStat (UNCTAD 2016), the aid data from OECD-CRS (2016) and the distance, common language and colonial past data from CEPII database (Mayer and Zignago 2011).

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<sup>8</sup> Helble et al. (2009), Cali and te Velde (2011), Hoekman and Wilson (2010), and Vijil and Wagner (2010) have similar approach in their empirical investigation.

#### 4.2 Methodology

The aim of the investigation is to analyse whether Aid for Trade provided by the EU contributed to the improvement of the Iberian export performance significantly or not. For this purpose, a gravity model was performed. Gravity models are appropriate methods to investigate trade flows (Carey et al. 2007), and they assume that trade is positively affected by the income of partner countries and negatively affected by their distance as the proxy of transport costs (Africano and Magalhães 2005). In order to conduct the best analysis, we run three models. The ground specification in present paper is as follows:

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Yc_{i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \varepsilon, \quad (1)$$

- $EXP_{j,t}$  denotes export from  $j$  country (Portugal or Spain) to developing countries;
- $Y_{i,t-1}$  denotes the GDP in country  $i$ , and this shows the market size;
- $Yc_{i,t-1}$  denote the GDP per capita in country  $i$  referring to the income level;
- $Dist_{i,j}$  means the distance between country  $i$  and Portugal or Spain;
- $Crisis$  variable is a dummy variable where 0 denotes the years before and after the crises and 1 represents the years in crisis (2007-2009);

In the second model, a dummy variable for common colonial past (*colony*) was added, so the specification is as follows:

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Yc_{i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \beta_6 Colony + \varepsilon, \quad (2)$$

In order to analyse what kind of direct effects the Aid for Trade has in the different country groups (ACP, LDC, oil-exporting and Latin-American countries), equation (3) contains the following interactions: the coefficient of  $\ln AfT*LA$  shows how much impact the Aid for Trade has on the trade expansion if a certain recipient country belongs to the Latin American countries. The other interactions ( $AfT*LDC$ ,  $AfT*Oil$  and  $AfT*ACP$ ) can be solved similarly.

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

$$\ln EXP_{j,t} = \beta_0 + \beta_1 \ln(Y_{i,t-1}) + \beta_2 \ln(Y_{c,i,t-1}) + \beta_3 \ln Dist_{i,j} + \beta_4 \ln AfT_{i,t-1} + \beta_5 Crisis + \beta_6 Colony + \beta_7 \ln AfT^* ACP + \beta_8 \ln AfT^* LDC + \beta_9 \ln AfT^* Oil + \beta_{10} \ln AfT^* LA + \varepsilon, \quad (3)$$

It was a great challenge how to handle the case if AfT was zero in a certain country in some of the investigated – but not in all – years. Wagner (2003) and Cali and te Velde (2011) mention a solution: if the aid is zero, one can calculate as  $(1+aid)$ , but they add that it may have distorting effects. To handle this situation, Wagner (2003) – who Cali and te Velde (2010) follow – recommends dummy variables (1 if aid is zero, and 0 if aid is above zero), which methodological device was partly accepted during this analysis. Consequently, calculating the logarithm of aid, the following specification was used as Wagner (2003) recommends:  $\ln(\max(1, aid))$ . But the dummy variables contained no more information, so they were left out. As a result, this calculation was able to keep aid level zero where it was that originally.

Aid-related regression models always raise the question of endogeneity, meaning that dependent variables highly correlate with the error term. In the present case it means that it is not sure whether aid results in increasing trade or better trade performance has an impact on aid allocation. Since it has a distorting effect, it is needed to be solved. A solution is to involve instrumental or proxy variables in the analysis (for instance, Angeles and Neanidis 2009, or Grange et al. 2009), though these instruments may describe the original variable incorrectly, this way causing further distortion (Younas 2008). In aid studies the most common tool for handling the endogeneity problem is to calculate with lagged independent variables (Younas 2008, Kimura et al. 2012). However, there is no consensus in this question. Cali and te Velde (2011) calculated with lagged aid data in their regression model, while Wagner (2003) analysed the aid effect on trade both lagged and not lagged. He concludes that current (and not previous) year's development assistance contributes to the trade performance in the current year. According to these, in present analysis all independent variables are lagged by one year. Its economic sense is that earlier economic performance determines present trade performance, and AfT received in the previous year leads to trade expansion which appears in the following year's performance.

These calculations were prepared for Portugal and Spain. The models were tested whether they met the requirements of regression models (heteroskedasticity, multicollinearity, autocorrelation).

### **4.3 Results**

The results will be introduced as follows. The Iberian countries' export performance and their determinants are analysed separately and the analyses start with correlation analysis showing how strong the connections between the variables and proving the necessity of their involvement into the model.

#### **4.3.1 Portugal**

The correlation analysis shows relatively strong connection between the Portuguese export performance and the independent variables (Table 1). As it was expected, the relationship is negative in the case of distance: the farther a country is, the less the trade between the country and Portugal is. In the other cases, the relationship is positive.

*Table 1* Correlations with exports of Portugal

		aft	gdp	gdp_capita	distance
export	Pearson Correlation	,261**	,538**	,487**	-,313**
	Sig. (2-tailed)	,000	,000	,000	,000
	N	624	624	624	624

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*Source:* own calculations

Regarding the regression analysis, we received relatively good results (Table 2). The R-square is relatively high in the case of all three models, and the result of the Durbin-Watson test shows that there is no distorting effect of autocorrelation. The ANOVA-test strengthened that the gravity model can be used.



*Table 2 Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,731	,534	,530	1,7046365	
2	,860	,740	,738	1,2734377	
3	,866	,750	,745	1,2545574	1,998

*Source:* own calculations

Table 3 contains the coefficients of the gravity models. In the case of the first model, which contains only the basic indicators, shows that crisis and aid for trade had not significant impact on export expansion of Portugal, but GDP and GDP per capita of the recipient countries together with the distance are significant variables. In the second model, the results are similar but colonial past as a new indicator has also significant impact on the export of Portugal: Portuguese exports are more with former Portuguese colonies. The third model contains the direct impacts of aid provided to different country groups. Out of the three relevant variables, only the Aid for Trade provided to ACP countries is significant, while Aft to Latin-American countries is not. That shows that the relatively strong ties of the EU with ACP countries affect the relations of the member states.

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

Table 3 Coefficients of the gravity models (Dependent variable: Portuguese exports)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
1	(Constant)	12.280	1.582		7.764	0.000	
	crisis	-0.179	0.141	-0.035	-1.264	0.207	0.995
	aft	0.087	0.066	0.047	1.328	0.185	0.613
	gdp	0.554	0.056	0.428	9.917	0.000	0.405
	gdp_capita	0.710	0.090	0.307	7.899	0.000	0.500
	distance	-1.880	0.126	-0.444	-14.931	0.000	0.852
2	(Constant)	9.541	1.188		8.031	0.000	
	crisis	-0.178	0.106	-0.035	-1.682	0.093	0.995
	aft	0.030	0.049	0.016	0.610	0.542	0.611
	gdp	0.742	0.043	0.573	17.419	0.000	0.389
	gdp_capita	0.481	0.068	0.208	7.084	0.000	0.488
	distance	-1.812	0.094	-0.428	-19.254	0.000	0.851
	colony	4.353	0.197	0.467	22.145	0.000	0.947
3	(Constant)	7.389	1.394		5.300	0.000	
	crisis	-0.157	0.104	-0.031	-1.504	0.133	0.986
	aft	0.004	0.049	0.002	0.084	0.933	0.594
	gdp	0.807	0.047	0.623	17.237	0.000	0.312
	gdp_capita	0.535	0.089	0.231	6.022	0.000	0.277
	distance	-1.774	0.099	-0.419	-17.942	0.000	0.748
	colony	4.229	0.200	0.454	21.122	0.000	0.886
	LA_aft	0.002	0.008	0.005	0.222	0.824	0.689
	acp_aft	0.036	0.008	0.126	4.675	0.000	0.564
	oil_aft	0.006	0.008	0.015	0.692	0.489	0.837
ldc_aft	-0.002	0.010	-0.005	-0.159	0.874	0.376	

Source: own calculations

### 4.3.2 Spain

The correlation analysis shows relatively strong connection between the Spanish export performance and the independent variables (Table 4). It seems that the correlation is bit stronger between the variables than in the case of Portugal. With this difference, every other feature is similar to the results of the Portuguese correlation analysis.

As for the regression models, we received relatively good results (Table 5) as in the case of Portugal. The R-square is relatively high in the case of all three models (and

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

higher than in the case of Portugal), and the test of Durbin-Watson shows that there is no distorting effect of autocorrelation. The ANOVA-test strengthened that the gravity model can be used.

*Table 4 Correlations*

		export
distance	Pearson Correlation	-,218**
	Sig. (2-tailed)	,000
	N	624
aft	Pearson Correlation	,354**
	Sig. (2-tailed)	,000
	N	624
gdp	Pearson Correlation	,789**
	Sig. (2-tailed)	,000
	N	624
gdp_capita	Pearson Correlation	,597**
	Sig. (2-tailed)	,000
	N	624

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: own calculations

*Table 5 Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,890	,791	,790	,9724041	
2	,903	,815	,814	,9157007	
3	,906	,821	,818	,9042201	2,013

Source: own calculations

Table 6 contains the coefficients of the models. The first model shows that crisis and aid for trade were not significant variables (that is, they did not influence exports of Spain to developing countries significantly), but GDP and GDP per capita of the recipient countries together with the distance are significant variables. In the second model, the results are similar but colonial past as a new indicator has also significant impact on the export of Spain (just as in the case of Portugal). In the third model, we can analyze the direct impacts of aid provided to different country groups. In the case of Spain, both Aft offered to ACP countries to Latin-American countries are significant. That means that the aid that the EU provides to these countries created more markets to Spain and

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

contributed to the Spanish export improvement. This is an opposite result of the Portugal performance.

*Table 6 Coefficients of the gravity models (Dependent variable: Spanish exports)*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	7.048	0.926		7.614	0.000		
	crisis	0.067	0.081	0.015	0.834	0.404	0.995	1.005
	aft	0.050	0.038	0.031	1.306	0.192	0.602	1.662
	gdp	0.768	0.032	0.696	24.272	0.000	0.411	2.434
	gdp_capita	0.495	0.051	0.251	9.677	0.000	0.502	1.991
	distance	-1.370	0.072	-0.378	-18.904	0.000	0.842	1.188
2	(Constant)	9.085	0.901		10.084	0.000		
	crisis	0.049	0.076	0.011	0.649	0.517	0.994	1.006
	aft	0.067	0.036	0.042	1.861	0.063	0.600	1.666
	gdp	0.776	0.030	0.703	26.039	0.000	0.410	2.436
	gdp_capita	0.363	0.050	0.184	7.207	0.000	0.459	2.178
	distance	-1.570	0.072	-0.434	-21.863	0.000	0.760	1.316
3	colony	0.973	0.109	0.181	8.939	0.000	0.731	1.368
	(Constant)	9.263	1.020		9.085	0.000		
	crisis	0.052	0.075	0.012	0.690	0.491	0.986	1.014
	aft	0.036	0.036	0.022	0.992	0.322	0.575	1.739
	gdp	0.836	0.034	0.757	24.829	0.000	0.314	3.183
	gdp_capita	0.303	0.062	0.154	4.921	0.000	0.299	3.348
	distance	-1.651	0.073	-0.456	-22.519	0.000	0.711	1.407
	colony	0.789	0.170	0.147	4.647	0.000	0.292	3.420
	LA_aft	0.023	0.009	0.077	2.555	0.011	0.318	3.143
	acp_aft	0.012	0.006	0.051	2.111	0.035	0.499	2.004
ldc_aft	-0.005	0.007	-0.021	-0.767	0.443	0.393	2.547	
oil_aft	-0.016	0.006	-0.050	-2.697	0.007	0.834	1.199	

Source: own calculations

As an addition, we should highlight that neither in the case of Portugal, nor in the case of Spain, the years of the crisis were significant. That means that the crisis did not reduced (or increased) trade with developing countries. This suggests that both countries tried to find new partners and markets out of the European Union in order to boost their exports. Aid for Trade as a financial assistance contributed to trade more with some developing countries.

## **5 Conclusions**

The aim of this study was to investigate whether international development cooperation policy of the European Union contributes to the export expansion of the Iberian EU Member States. As an example, the Aid for Trade initiative was taken into consideration for several reasons. On the one hand, the AfT improves trade capacity in developing countries and promotes economic development there. On the other hand, it is shown that AfT contributes to export expansion of not only recipient but donor countries through the developed business environment. This research with empirical results showed that Aid for Trade assistance provided to ACP countries contributed to the trade expansion of Portugal and Spain, moreover, AfT to Latin American countries resulted in higher trade with Spain (that is, Spain exported more to Latin American countries). Altogether, the results are more significant in the case of Spain – which makes us assume that AfT might contribute to the Spanish trade miracle after the crisis.

Altogether, this study showed that an external (foreign) policy of the EU has large influence on the trade performance of the member states, though the impact is mainly indirect. However, while analysing trade performance of EU members, other policies than trade policy should be taken into consideration. At the same time, we should remember that multinational corporations and global value chain have large influence on the exports of the Iberian countries.

## References

- Abbott, P. – Bentzen, J. – Tarp, F. (2009): Trade and development: lessons from Vietnam's past trade agreements. *World Development*, 37(2): 341–353.
- Africano, A. P. – Magalhães, M. (2005): FDI and trade in Portugal: a gravity analysis. *FEP Working Papers*, 174, Faculdade de Economia de Porto.
- Andraz, J. M. – Rodrigues, P. M. M. (2010): What causes economic growth in Portugal: exports or inward FDI? *Journal of Economic Studies*, 37(3), pp. 267-287
- Angeles, L. – Neanidis, K. C. (2009): Aid effectiveness: the role of the local elite. *Journal of Development Economics*, 90(1): 120-134.
- Arnold, J. (2015): Boosting export performance in Portugal. OECD Economics Department Working Papers, No. 1257, OECD Publishing, Paris.
- Bearce, D. H. – Finkel, S. E. – Pérez-Linán, A. S. – Rodríguez-Zependa, J. – Surzhko, L. (2013): Has the New Aid for Trade Agenda been Export Effective? Evidence on the Impact of US Aft Allocations 1999–2008. *International Studies Quarterly*, 57(1): 163–170.
- Brazys, S. R. (2013): Evidencing donor heterogeneity in Aid for Trade. *Review of International Political Economy*, 20(4): 947–978.
- Cabral, S. – Manteu, C. (2013): THE PRICE ELASTICITY OF EXTERNAL DEMAND OF PORTU-GUESE EXPORTS: A COMPARISON WITH OTHER EURO AREA COUNTRIES. *Economic Bulletin*, 19(4), pp. 73-83.
- Cali, M. – te Velde, D. W. (2011): Does Aid for Trade really improve trade performance? *World Development*, 39(5): 725-740.
- Carey, K. – Gupta, S. – Jacoby, U. (2007): *Forging new trade links with Asia. Sub-Saharan Africa*. International Monetary Fund, Washington, D. C.
- CEPII Working Paper 2011-25.
- Correia, A. L. – Gouveia, A. F. (2016): What Determines Firm-level Export Capacity? Evidence from Portuguese firms. *GEE Papers*, 57,
- Deardorff, A. V. – Stern, R. M. (2009): Alternatives to the Doha Round. *Journal of Policy Modeling*, 31(4): 526–539.
- Degnbol-Martinussen, J. – Engberg-Pedersen, P. (2005): *Aid: understanding international development cooperation*. London: Zed Books.
- Dreger, C. – Herzer, D. (2011): A further examination of the export-led growth hypothesis. *Discussion Paper*, 305, European University Viadrina Frankfurt.
- EC (2016a): Country Report Portugal 2016. SWD (2016) 90 final, European Commission, Brussels.
- EC (2016b): Country Report Spain 2016. SWD (2016) 78 final, European Commission, Brussels.

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

- Eppinger, P. S. – Meythaler, N. – Sindlinger, M-M. – Smolka, M. (2015): The Great Trade Collapse and the Spanish Export Miracle: Firm-level Evidence from the Crisis. IAW Discussion Paper, 120, Institut für Angewandte Wirtschaftsforschung, Tübingen.
- Freund, C. – Bolaky, B. (2008): Trade, regulations, and income. *Journal of Development Economics*, 87(2): 309–321.
- Gil-Pareja, S. – Llorca-Vivero, R. – Martínez-Serrano, J. A. – Requena-Silvente, F. (2015): Regional export promotion offices and trade margins. *Review of Economy*, 151, pp. 145-167.
- Grange, L. de – Troncoso, R. – Ibeas, A. – González, F. (2009): Gravity model estimation with proxy variables and the impact of endogeneity on transportation planning. *Transportation Research Part A*, 43(2): 105-116.
- Hallaert, J. J. – Munro, L. (2009): *Binding constraints to trade expansion: Aid for Trade objectives and diagnostic tools*. OECD Trade Policy Working Paper, 94, OECD.
- Helble, M. – Mann, C. – Wilson, J. S. (2009): Aid for Trade Facilitation. *Policy Research Working Paper*, 5064, The World Bank.
- Hoekman, B. – Wilson, J. S. (2010): Aid for Trade: Building on progress today for tomorrow's future. *Policy Research Working Paper*, 5361, The World Bank.
- Huchot-Bourdon, M. – Lipchitz, A. – Rousson, A. (2009): Aid for Trade in developing countries: complex linkages for real effectiveness. *African Development Review*, 21(2): 243–290.
- Hynes, W. – Holden, P. (2016): What future for the Global Aid for Trade Initiative? Towards an assessment of its achievements and limitations. *Development Policy Review*, 34(4), pp. 593–619.
- Kimura, H. – Mori, Y. – Sawada, Y. (2012): Aid proliferation and economic growth: A cross-country analysis. *World Development*, 40(1): 1-10.
- Kiss, G. D. (2015): African Floating Currencies and the EUR/USD fluctuation. In Hrabal, M. – Opletalová, M. – Orlitová, G. – Haltofová, B. (eds.): DOKBAT 11th Annual International Bata Conference for Ph.D. Students and Young Researchers. Tomas Bata University in Zlín, Faculty of Management and Economics, pp. 406-414.
- Lanz, R. – Roberts, M. – Taal, S. (2016): Reducing trade costs in LDCs: The role of Aid for Trade. WTO Staff Working Papers, ERSD-2016-05, World Trade Organization.
- Lee, H-H. – Ries, J. (2016): Aid for Trade and Greenfield Investment. *World Development*, 84(8), pp. 206-218.
- Mayer, T. & Zignago, S. (2011): Notes on CEPII's distances measures: the GeoDist Database
- Melo, J. – Laurent, W. (2016): Aid for Trade and the Trade Facilitation Agreement: What they can do for LDCs. Working Paper, P153, FERDI.
- Moreira, P. (2015): The Role of Seaports for Portuguese Economic Recovery: The Port of Sines. MPRA Paper No. 66287, Munich Personal RePEc Archive

*Beáta Udvari /The Aid for Trade initiative and the export performance of the Iberian EU-countries*

- OECD-CRS (2016): *Aid for Trade Statistical Queries*. Available: [http://www.oecd.org/document/21/0,3343,en\\_2649\\_34665\\_43230357\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/21/0,3343,en_2649_34665_43230357_1_1_1_1,00.html) (Downloaded: 21 July 2016)
- Pettersson, J. – Johansson, L. (2013): Aid, Aid for Trade, and bilateral trade: An empirical study. *Journal of International Trade and Economic Development*, 22(6), pp. 866-894.
- Rebelo, F. – da Silva, E. G. (2013): Export variety, technological content and economic performance: The case of Portugal. FEP Working Papers, 491.
- Sávai, M. – Kiss, G. D. (2016): Pénzügyi idősorok hiányzó adatainak kezelése – afrikai devizaárfolyamok példáján. *Statisztikai Szemle*, 7, pp. 736-756.
- Turner, L. (2008): Quantifying Aid for Trade: a case study of Tanzania. *Economic Paper Series*, 82., Commonwealth Secretariat, London.
- Udvari B. – Kis K. (2014): Az Aid for Trade szerepe az ECOWAS belső kereskedelmének ösztönzésében. *Külgazdaság*, 58 (3-4): 77-106.
- Udvari B. (2013): *Az Európai Unió nemzetközi fejlesztéspolitikája: a kereskedelempolitikai eszközök eredményessége*. Szeged: JATEPress.
- Udvari, B. (2011): The role of the Aid for Trade in the European Union's development policy. *Virtual proceedings*, European Trade Study Group 2011 Thirteenth Conference, Copenhagen, pp. 23 (Downloadable: <http://204.3.197.155/ETSG2011/Papers/udvari.pdf>)
- Udvari, B. (2014): Impacts of Aid for Trade on Trade with the EU The Role of Old and New Member States. *Journal of Global Policy and Governance*, 3(1), 77-93. o.
- Uhrin Á. – Schusztér T. (2013): Az USA Aid for Trade politikája. *Külgazdaság*, 57(11–12): 48–82.
- UN (2011): *List of Country Grouping and Sub-Grouping for the Analytical Studies of the United Nations World Economic Survey and other UN Reports*. Available: <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan008092.pdf> (Downloaded: 14 January 2011)
- UNCTADStat (2016): *UNCTADStat*. <http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx> (Downloaded: 20 July 2016)
- UN-OHRLS (2016): List of Least-Developed Countries. Available: [http://www.un.org/en/development/desa/policy/cdp/ldc/ldc\\_list.pdf](http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf) (Downloaded: 1 July 2016)
- Vijil, M. – Wagner, L. (2010): Does Aid for Trade enhance export performance? Investigating on the infrastructure channel. *Virtual proceedings*, European Trade Study Group International Conference, 42 o. Available: [http://www.etsg.org/ETSG2010/papers/Vijil\\_Wagner.pdf](http://www.etsg.org/ETSG2010/papers/Vijil_Wagner.pdf) (Downloaded: 1 February 2011)
- Vijil, M. (2013): Aid for Trade effectiveness: complementarities with economic integration. Working Paper, P76., FERDI.



*Beáta Udvari /The Aid for Trade initiative and the export performance of  
the Iberian EU-countries*

Wagner, D. (2003): Aid and trade – an empirical study. *Journal of Japanese and International Economies*, 17(2): 153-173.

WTO (2006): *Recommendations of the Task Force on Aid for Trade*. WT/AFT/1, World Trade Organization, Geneva.

Younas, J. (2008): Motivation for bilateral aid allocation: Altruism or trade benefits. *European Journal of Political Economy*, 24(3): 661-674.