

Determinants of FDI in Balkan countries: the role of different stages of EU accession

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Abstract

Foreign Direct Investments (FDI) have heterogeneously increased across Balkan countries over the last decades. We investigate one likely source of this heterogeneity by using information on 9,185 greenfield FDI locating in 8 Balkan countries from 84 origin countries worldwide over the 2003-2019 period. Notably, we investigate the role of the different phases of the European Union accession process in determining the probability that an FDI will locate in one specific Balkan country. In doing so, we control for standard FDI determinants such as market size, openness to trade, wages and governance as well as different forms of co-location between the new investment and those previously located in the same host country. We stratify our sample in terms of both FDI origin countries—distinguishing between EU and non-EU investors—and industry activity located abroad. Overall, all stages (negotiations, approval, official membership) appear to be associated with positive gains in FDI. Moreover, an anticipation effect emerges from the approval phase, most likely due to the reduction in the uncertainty perceived by investors. The positive effect of prospect membership also extends to the years before official negotiations start. These results also hold when stratifying the sample for industry heterogeneity and origin country of investments, the only exception being the negative effect of EU membership on the location of FDI in manufacturing. To our knowledge, this is the first study to address the issue of FDI determinants

in Balkan countries including such a comprehensive set of regressors and exploring country of origin and functional heterogeneity at the investment level, while dealing with the hot topic of the EU accession.

Keywords: Foreign Direct Investment, Location Choice, Balkans, EU accession, Conditional Logit

JEL Classification: F21 , F23 , O24

1 Introduction and background

In the last three decades, Balkan countries have witnessed dramatic political, social and economic changes experiencing the dissolution of central planned economies, civil wars and the emergence of new countries. Although the shadow of a long-troubled history of ethnic conflicts might still induce doubts and insecurity to potential investors (?), the region scored a remarkable transitional process, both economic and political, since the 2000s. The beginning of a peaceful era, economic reforms and cooperation with the EU widened the horizon of positive changes. Economic integration with the EU took off somewhat later than in the New Member States (NMS, henceforth)¹, but the increasing number of companies setting up their operations in the region is a signal of economic liberalization and increased economic growth. Indeed, over the 2001-2019 period, the average annual GDP growth rate was 3.43% for the area and only 1.45% for EU countries (?).

Nonetheless, the Balkan economies are still quite backward and generally poor due to the presence of obsolete production facilities, scarcity of infrastructures and high unemployment. This is especially true for Western Balkans, which include Serbia, Croatia, North Macedonia, Albania, Montenegro and Bosnia and Herzegovina. By 2011, Serbia, Montenegro and Bosnia and Herzegovina had still not reached their 1989 level of GDP due to the negative GDP growth rates scored during the 1990s. The primary sector still plays a key role in the Balkans. Although it guarantees a high number of jobs (for instance, in Albania, it employs half of the total workforce), the mechanization level and the specialization of crops are low. Moreover, the cultivated areas are limited because of the mountainous territory, hot summers and poor soils. Industry

¹With New Member States we refer to the eight countries of Continental Europe which joined the EU on 1st May 2004: the five Central and Eastern Europe (CEE) countries (Czech Republic, Hungary, Poland, Slovakia, and Slovenia) and the three Baltic countries (Estonia, Latvia, and Lithuania). With Balkan countries we refer to Romania, Bulgaria, Serbia, Croatia, Former Yugoslavian Republic of Macedonia, Albania, Montenegro and Bosnia and Herzegovina. Romania and Bulgaria are referred to as Southeastern Europe whereas the remaining six countries are referred to as Western Balkans. We did not include Kosovo among Balkan countries due to data incompleteness. All these countries (which we label “Emerging Europe”) share sixty years of planned economies and similar transition processes towards market economies. In turn, NMS represent the natural benchmark for comparing the economic performance of Balkan countries.

does not affect the local economy in a decisive manner because the facilities are under-developed and the natural resources are scarce.²

In this framework, external technologies and knowledge may represent valuable developmental triggers for the region. Specifically, foreign direct investments (FDI) may induce positive effects for the local economy, through both direct and indirect channels. Recipient countries are likely to benefit from increased availability of capital as well as managerial and technological know-how, potentially leading to increase their exports, reduce unemployment and develop better infrastructure.

FDI and trade are deemed to be among the most efficient ways of integrating transition economies into global economic flows (????). While countries from Central and Eastern Europe (CEE) started to attract foreign investment following the 1990s transition to liberal markets, FDI inflows into Western Balkan countries have been almost null throughout all the decade. Two main factors have limited the FDI inflows into the region. The first one is the comparatively late start of the transition process for Western Balkan countries, due to the political and ethnic conflicts that have plagued the region throughout the 1990s making it lose a decade of development. This left the Western Balkans behind in terms of skill and physical infrastructure development and foreign capitals attraction, as well as in relation to the adoption of important macroeconomic reforms (?). A second factor, which affects more broadly the whole set of Balkan countries, concerns the very slow process of integration with the European Union, the slowest in the EU history, with accession talks of several Balkan countries still having uncertain prospects due to recent changes in the EU enlargement policy.

The whole set of emerging European countries experienced booming FDI inflows in the 2003-2008 period, driven by a combination of push and pull factors, among which the supply of funds from Western Europe through the CARDS and IPA programs (?) and the expectations of high growth. These booming inflows provided financing and supported private sector development; however, they dropped after the global financial crisis (?). Since 2009, FDI inflows into the region has been discontinuous and only a small share of global flows has gone to the Balkans (?).

In the case of CEE countries, integration with the European Union has been considered a crucial enabler of FDI and a means of enhancing economic and institutional development (??). In fact, to be able to start the negotiations for the accession to the EU, a transition country is required to put in place economic and institutional reforms, which include the privatization and liberalization of the economy as well as trade openness and the improvement of business regulations and governance³. Besides being a means to economic and institutional convergence with current EU members, these reforms are themselves an important driver for foreign investment, positively affecting location

²For an excellent historical overview of the economic environment in the 90s and its development see Estrin & Uvalic (2014).

³For a more detailed explanation of the requirement to enter the EU see https://ec.europa.eu/neighbourhood-enlargement/enlargement-policy/conditions-membership_en

choices of foreign MNEs by reducing the risks and uncertainties associated with investing abroad and commonly included within the concept of “liability of foreignness” (LOF, henceforth), which refers to the greater costs of doing business in a foreign country compared to domestic competitors (???). Furthermore, foreign investors are likely to be attracted by the greater market size of EU members compared to non-EU destinations, brought de facto by the absence of tariffs within the Union.

On the other hand, the increased ease of trade with a country once it has entered the EU may also cause a decline in FDI when foreign investment act as a substitute rather than a complement for trade, especially when the cost associated to the investment is high. Furthermore, while we expect that improving institutions and decreasing uncertainty may lead to an increase in FDI already prior to the effective entry of the destination country into the EU, the timing of this increase as well as whether this persists after the effective accession to the EU is rather unclear.

Therefore, the aim of this paper is to explore the impact of the European accession process, trying to disentangle the effect that different phases of the EU accession process (negotiations, approval, official membership) may have on the probability that an FDI will locate in a specific Balkan country. In this respect, Balkan countries can represent an ideal setting as some of them have already undergone the whole process of accession while others have only started the negotiation phase. In doing so, we fully exploit the investment-level information in our dataset and explore the heterogeneity in results in terms of FDI origin countries and industry activity. To our knowledge, this is the first study to address the issue of FDI determinants in Balkan countries focusing on both announced and actual EU membership and exploring country and functional heterogeneity at the investment level.

The remainder of the paper is structured as follows: Section 2 reports the main findings of the literature on FDI determinants focusing on location choices in transition economies of Central, Eastern and Southeastern Europe and the Balkans. Section 3 illustrates the empirical model and the dataset used for the analysis and provides some descriptive statistics. Section 4 shows the main results of the analysis and section 5 presents some concluding remarks.

2 Literature review

Firms tend to choose FDI locations that maximise the expected profits related to their operations (?). The literature highlights as “pull factors” those that are expected to increase revenues (e.g., market size and economic performance), and those that drive a reduction in production costs (e.g., cost and quality of labour, quality of the institutions and of the regulatory business framework, proximity). Over the last two decades, several studies examined the determinants of FDI inflows in New Member States and transition countries. In their milestone study, ? use a gravity model to explain the determinants of FDI in CEE countries and find home and host country market size, host country

unit labor costs and proximity between home and host country to be the most influential factors. On the contrary, they do not assess a significant effect of the host country risk level, measured by its institutional quality.

While most studies find a positive role of market variables and proximity, there is less agreement on the role of institutional quality and labour cost. As for the institutional quality, discordant results emerge depending on the specific dimensions considered, and institutional variables often do not emerge among significant FDI determinants (???). As for the cost of labour, ? and other authors (??) find that unit labor costs are negatively associated with FDI inflows, supporting the theory that firms are sensitive to cost reduction when investing in transition and Balkan countries. Other studies, instead, find a positive relationship between labour cost and FDI for transition economies (???), which can be explained by the fact that higher wages are usually associated with better skilled and more productive labour force. The importance of low wages emerges especially in relation to efficiency-seeking FDI, i.e., investments made by firms that seek to improve their competitive position in international markets by relocating production facilities to countries with lower wages or outsourcing parts of their value chains to lower cost suppliers in foreign countries. Accordingly, Markusen's knowledge-capital theory (Markusen, 1996, 1997) argues that knowledge-based activities will locate where skilled labour has lower costs, while production activities search for cheaper unskilled labour (?). We could therefore expect the labour cost to be negatively related to FDI especially for manufacturing activities.

As already mentioned, one of the institutional and political factors potentially affecting FDI inflows in transition and post-transition economies is their integration with the European Union. This process forces countries to build market institutions and establish trade links with other European and non-European countries and to develop policies to improve the business environment and reinforce political, legal and economic institutions. Therefore, reforms undertaken by host economies to be part of the EU positively influence many of the previously mentioned FDI location factors, contributing to political and macroeconomic stability and to improve the regulatory system. Several studies have assessed the crucial role of 'transition-specific' features such as trade openness and privatization (?????), although trade may also act as a substitute for FDI under certain circumstances (??). Nonetheless, ? conduct a meta-analysis on the determinants of FDI in CEE and FSU (Former Soviet Union) transition countries with a focus on transition variables and find that traditional FDI determinants, such as market size and agglomeration economies, as well as variables for the EU accession have stronger effects on FDI than economic transition variables.

To analyze the effects of the integration with the European Union on the attraction of FDI it is appropriate to separate the process into stages, namely the negotiation phase, the approval phase and the actual entry of the country into the EU. While the phase prior to the actual entry has been studied in relation to NMS and Balkan countries, recognizing an "announcement effect" that

positively influenced FDI flows to the future EU members (?????), the effect of actual EU membership remains uncertain. According to ?, the incentive schemes offered to foreign investors in CEE countries ensure that the positive effect on FDI inflows of the liberal shift initiated in the application/negotiation phases persists after the enlargement. On the contrary, according to ? the benefits deriving from the entry into the EU are likely to fade for NMS as the number of EU members increases. Among the few empirical studies, ? study the effect of EU membership on FDI inflows from 34 OECD countries over the 1985–2013 period and find that host country EU membership increases FDI inflows by an average 28%. Furthermore, although less stably across econometric techniques, they find the EU membership of the source country to significantly affect FDI inflows.

When it comes to the Balkans, the literature on the determinants of FDI and, more specifically, on the role of EU accession is much more limited. Among the few to focus on this area, ? identify a positive announcement effect of EU membership on FDI. ? introduce three dummies to identify as many stages of the accession process, namely the signing an agreement to become a member, the start of negotiations, and the actual membership. However, given the time in which the study was realized, only the first dummy includes Western Balkans countries, for which it is positive and highly significant.

Disentangling the effect that the different phases of the integration with the EU may have on FDI inflows appears to be especially important for Balkan countries. Conditional on market factors, distance from the source country, institutional quality and prospects of EU membership, Western Balkans countries have systematically received less FDI than other transition countries and have to be considered as a particular area. Despite positive developments during the 2000s, the Balkans may still face an image problem: for many potential foreign investors, the word Balkan “conjures up troubled images of war and conflict, rather than investment opportunities and economic potential” (?). ? have empirically verified that FDI into the Western Balkans have been even lower than what explained by the economic characteristics of the region, identifying a negative “Balkans” perception effect.

Therefore, the aim of this paper is threefold. Firstly, we explore the impact that the European accession process undertaken by some of the Balkan countries had on the location choices of greenfield investors in the area. We draw on the cited literature which address a similar issue for NMS and Balkan countries but we try to disentangle the effect that different phases of the EU accession process (negotiations, approval, official membership) may have on the probability that an FDI will locate in a specific Balkan country. As the beginning of official negotiations is anticipated by the official candidate status and the information about the beginning of negotiations might spread before the official starting data, it is reasonable to conjecture that the anticipation effect might start even before the official negotiations, an event almost unexplored by previous literature. In this respect, Balkan countries can represent an ideal

setting as some of them have already undergone the whole process of accession while others have not started the negotiation phase yet.

Secondly, we fully exploit the investment-level information in our dataset and explore the heterogeneity in results in terms of FDI origin countries and industry activity. In fact, we are interested in unraveling the differentiated effect that a destination's EU status may have on EU and non-EU investors for several reasons. While the former group may be attracted by the exploitation of lower labour costs to produce both intermediate and final products in the absence of barriers to internal trade, the latter may find in FDI an opportunity to enter the European market. Furthermore, the decreasing uncertainty associated with the prospective and actual EU membership may affect distant non-EU countries more than closer EU ones. With regard to the level of risk and uncertainty perceived by foreign firms, findings from ? on Western European firms investing in CEE countries show that, given their people-intensive nature, FDI in Services are more sensitive to behavioural uncertainties than Manufacturing FDI. At the same time, analyzing the role of International Investment Agreements in attracting FDI, ? find that FDI targeting natural resources industries are associated with higher risks of expropriation and therefore require more guarantees of protection. For these reasons, we may expect that progressing towards the EU membership exert a stronger influence on the attraction of services and resource-related FDI rather than manufacturing ones.

Finally, we include three different variables to proxy for agglomeration economies originating from as many different forms of co-location between the new investment and those previously located in the same host country. We study the role of the co-location of the new investment with prior investments originating from the same firm (intra-firm agglomeration), from the same origin country (country-of-origin agglomeration) or operating in the same industry (industry agglomeration). On the whole, the existence of previous investments, be they from the same firm, industry or country of origin, reduces the cost of information about the destination area and improves the access to international business networks, thereby mitigating actual and perceived risk factors and leading to more rapid internationalization ?. More specifically, the first two measures proxy the access to information about the destination country that the investing firms in the source country can access (see ? for the first and ? for the second). The third one, instead, proxies for the information and knowledge spillovers arising from the proximity of foreign firms operating in the same industry, i.e., "Marshallian" externalities (??). The empirical evidence available for transition economies, although limited, suggests that agglomeration economies have positive and significant impacts on FDI flows (???). In relation to the Western Balkans, ? concluded that industry agglomeration was a significant factor in the explanation of service FDI, while they find no significant effect of manufacturing FDI agglomeration.

To our knowledge, this is the first study to address the issue of FDI determinants in Balkan countries including such a comprehensive set of regressors

and exploring country and functional heterogeneity at the investment level, while dealing with the hot topic of the EU accession.

3 Empirical Application

3.1 Empirical model

We study the location choice of FDI in Balkan countries using a conditional logit model (?). In this model, the investor chooses the location that yields the highest possible utility. Utility is modelled as a linear function of alternative-specific regressors, varying either by destination country or by investment and destination country. In our baseline specification, the utility for investment n from country o yielded by locating in Balkan country i at time t is:

$$U_{niot} = \alpha' x_{it-1} + \beta' y_{oit-1} + \gamma' z_{nit-1} + \delta' d_i + \epsilon_{niot} \quad (1)$$

where x_{it-1} is a vector of destination country characteristics controlling for standard factors affecting the utility of potential locations (market size and growth, population, wages) and including four dummies for the different stages of accession to the European Union; y_{oit-1} is a vector of bilateral origin-destination regressors accounting for physical and cultural proximity and previous FDI flows from the same origin country; z_{nit-1} is a vector of investment-destination regressors such as intra-firm co-location and industry agglomeration; d_i is a vector destination countries fixed effects. α , β , γ and δ are parameter vectors to be estimated. The error term ϵ_{niot} is iid extreme value.

The probability that investment n from country o locates in the Balkan country i at time t is the probability that the utility yielded by locating in i exceeds that of locating in all other Balkan countries $j \neq i$. In our application, the alternatives are constituted by the set of J Balkan countries where the FDI could locate (i.e., the set of countries chosen at least once as an FDI destination) and the decision-makers are the N investment projects. The resulting number of choices under consideration is $J \times N$. The dependent variable “choice” is equal to one if a specific alternative was ultimately selected, and zero for the other alternatives in the choice set. The probability to choose a specific country depends only on the difference in utility that the specific country i yields to the decision maker n compared with the other alternatives. The absolute value of utility does not matter. Hence, attributes of the alternative that do not induce a difference in utility, or attributes of the decision maker that do not vary over alternatives, will not affect the choice and will not be estimated. This implies that variables that are invariant by investment (e.g., the country of origin of the FDI, its GDP, the amount of capital invested, etc.) will be included in the specification only if interacted with alternative-varying variables (?). On the other hand, bilateral variables such as those related to physical and cultural proximity between two countries and country-of-origin agglomeration will induce a difference in utility across alternatives

and will therefore be included. In terms of interpretation, the marginal effects of a given regressor are maximum by $P_{niot} = 1 - P_{niot} = 0.5$, i.e., when the choice probability is neither very likely nor very unlikely (?).

3.2 Sample and variables

We combined information retrieved from several data sources. As for information about FDI, the source is the Financial Times Ltd *fDi Markets* database, covering data on greenfield FDI. We consider 9,185 greenfield FDI locating in 8 Balkan countries (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia, Romania and Serbia) from 84 origin countries worldwide over the 2003-2019 period, amounting to more than 70,000 investment-country combinations. We consider as origin country the one in which the investing company is resident when the investment takes place.

Table 1 Variable description and data sources

Variable	Description	Data source
choice	1 if investment takes place	fDi Markets
log gdp pc	Log of GDP per capita (2010 US\$)	WDI
gdp growth	GDP growth (annual %)	WDI
log population	Log of population	WDI
wage	Monthly gross wage (2010 thousand US\$)	UNECE
initial regulatory quality	Regulatory Quality index in 2002 ¹	WGI
initial trade	Trade (% of GDP) in 2002	WDI
intra-firm agglomeration	N. of FDI from same firm from 2003 to t-1	fDi Markets
country-of-origin agglomeration	N. of FDI from same origin from 2003 to t-1 ²	fDi Markets
industry agglomeration	N. of FDI in same industry from 2003 to t-1 ²	fDi Markets
common language	1 if a language is spoken by at least 9% of the population in both countries	CEPII
same country	1 if countries were or are the same country	CEPII
weighted distance	thousand km	CEPII
EU membership	1 if dest is EU member at year t	EU website
EU approval	1 if dest is EU approved member at year t	EU website
EU negotiations	1 if dest has started EU negotiations at year t	EU website
prenegotiation	1 three years before starting negotiations	EU website
EU origin	1 if origin country is EU member at year t ³	EU website

¹2005 for Montenegro, for data availability issues.

²Country-of-origin agglomeration and Industry agglomeration have been further divided by 1000 for better result readability.

³Given the time period under analysis, UK is included among EU members.

Table 1 lists all the variables included in our analysis. Our binary dependent variable *choice* equals 1 if investment n located in country i and zero otherwise. The *fDi Markets* dataset is also the source of our measure of intra-firm agglomeration economies arising from co-location (*intra-firm agglomeration*). For each investment in year t , we compute the cumulated number of investments from the same firm in destination country i between 2003 (the first year

in our dataset) and year $t-1$. To proxy for the investors' access to information about the destination country (??), we similarly compute the cumulated number of investments observed from the same origin country o in destination country i up to year $t-1$ (*country-of-origin agglomeration*). We used the same method to create a variable to approximate the effects of industry agglomeration economies, computing the cumulated number of investments in the same activity as investment n observed in i up to year $t-1$ (*industry agglomeration*). All the three measures of agglomeration are assigned value 0 for the first year in the FDI data, 2003.

Our main variables of interest are a set of four mutually exclusive dummies representing four stages of the EU accession process, respectively equal to 1 if the destination country n in year t was a member of the European Union (*EU membership*), or if its membership was approved (*EU approval*), or if it has started the negotiations for the accession process (*EU negotiation*), or if it was an official candidate starting the negotiation phase in a few years (*prenegotiation*). By including these dummies, our aim is to disentangle the specific effects that the different phases of the accession process may have in terms of FDI attraction. Since we also include destination country fixed effects in the analysis, we can exclude the risk that our EU status variables catch the effect of host country specificities.

We combine these data with the World Bank World Development Indicators dataset (WDI) to control for standard location regressors. Specifically, we proxy for market size in the destination country using the log of the GDP per capita (*log gdp pc*) and the log of the population (*log population*), and its growth potential by *gdp growth*. We also retrieved from WDI the share of trade on GDP to proxy for the level of openness of the destination economy. Including contemporaneous trade share would introduce a bad control in our model, since it would be determined by the same regressors included in the model and could therefore be an outcome variable itself. For this reason, we include it as a predetermined variable (*initial trade*) taking its initial value (at year 2002). The same holds for our governance variable. To proxy for good governance and institutional quality, we rely on the country regulatory quality index drawn from the Worldwide Governance Indicators (WGI) of the World Bank. This variable measures the quality of the regulatory framework in support to private sector development and takes values from approximately -2.5 to +2.5. As in the case of the trade share, the EU status as well as the other regressors included in the model are likely to determine the goodness of the business regulations in the host country, for which reason only the initial value of the index is included (*initial regulatory quality*). On the side of costs, we include the gross average monthly wages retrieved by the United Nations Economic Commission for Europe (UNECE) dataset to measure the cost of work (*wage*).

Furthermore, to account for the geographical, cultural and institutional ties between country dyads, we include bilateral variables routinely included in the gravity literature (??), retrieved from the CEPII CHELEM dataset: the

weighted distance, which measures the bilateral distances between the largest cities of the destination-origin couple, weighted by the share of the city in the overall country's population; a *common language* dummy equal to 1 if the two countries share a common language that is spoken by at least 9% of the population; and the *same country* dummy equal to 1 if the two countries belonged previously or later merged into the same country, which is especially relevant given the recent history of the Balkan region.

We add a dummy taking value 1 if the origin country is a member of the European Union (*EU origin*). Since also intra-Balkans FDI are included, for Croatia, Bulgaria and Romania this variable is equal to 1 only after their accession to the EU.

Finally, we included destination dummies to account for host countries' specificities. All time-variant regressors (including EU accession dummies) are lagged one year to mitigate simultaneity problems and to account for the time interval between the decision to invest and the announcement of the project. The wide set of location factors and dyadic regressors included is intended to provide a comprehensive picture of location determinants and, while endogeneity issues cannot be ruled out, should also reduce the risk of omitted variable bias.

3.3 Descriptives

FDI have not uniformly increased in Balkan countries during the period under analysis, as Figure 1 shows. The 2008 economic crisis, in fact, coincided with a drop in FDI in several countries, both those starting with relatively high inflows at the beginning of the period, namely Romania and Bulgaria, and those which were already marginal recipients before the crisis, such as Albania, Montenegro and, to a lesser extent, Serbia. Notice that for Romania and Bulgaria the drop occurred in the years right after EU accession whereas a spike in the years immediately before. A similar, although less pronounced, effect can be detected also for Croatia. While following different trend patterns after the crisis, FDI started to increase in almost all countries from 2016.

Figure 2 shows the total number of FDI projects from European and non-European investors targeting Balkan countries in the 2003-2019 period. Romania is by far the largest FDI recipient in the Balkan region, receiving 44% of total FDI. Bulgaria and Serbia follow, attracting respectively 20% and 17% of the projects. Montenegro is the only destination where non-EU FDI are slightly prevalent, although only by a half percentage point. In all other countries, investments from European countries account for at least 65% of all FDI projects, reaching 75% in Romania and 81% in Croatia, except from North Macedonia where EU investments are 58%. The main European investor is Germany, accounting for more than a quarter of EU investments and almost 20% of the total number of FDI. It is followed by the United States, which is

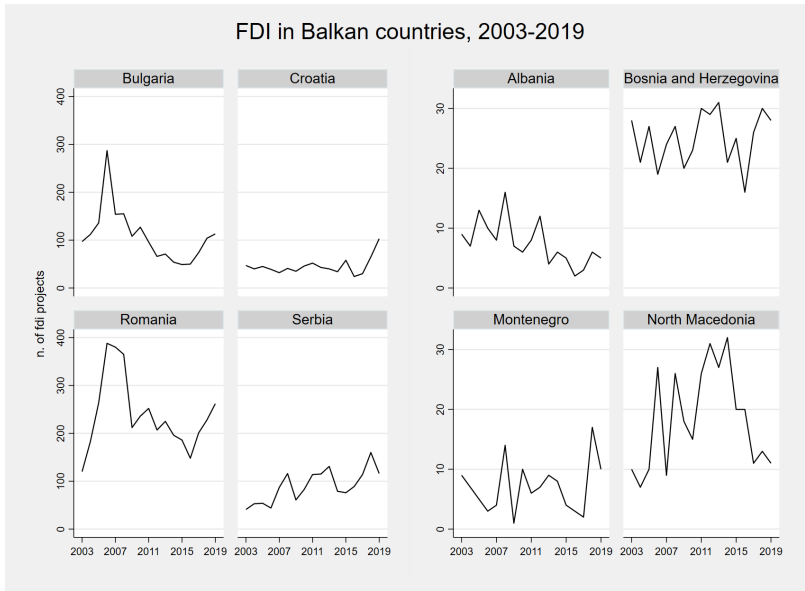


Fig. 1 FDI in Balkan countries, 2003-2019. Source: own elaboration on fDi Markets data

the main non-EU investor, accounting for 31% of non-EU FDI and 9% of total projects.⁴

As said earlier, our data allow us to run a separate analysis for specific functions. Figure 3 shows the composition of the investment portfolio. The prominent role of investments in retail and manufacturing emerges for both EU and non-EU investors, followed by service activities, construction, and logistics. EU investments are comparatively more targeted towards retail, while manufacturing is the first activity for non-EU investors. To ensure sufficient numerosity in our empirical analysis, we aggregate investments in three functional categories: Manufacturing, Services, and Resource-related activities. These categories may be viewed to broadly reflect the underlying heterogeneity in motives between efficiency-seeking, market-seeking and resource-seeking investments, respectively, following Dunning's taxonomy (?)⁵. The Services category includes FDI in Sales, Marketing and Support activities, Customer Contact Centers, Business services activities, Retail, ICT, Education, Headquarters, R&D, Design, Development and Testing. Resource-related activities include investments in Construction and Extraction activities, Electricity, and

⁴The destination country, origin country and industry distribution of the investments are similar to those computed using Balance of Payments data in ?.

⁵Within his eclectic paradigm, ? classifies FDI in three main categories: market-seeking, to gain access to large local and regional markets and distribution networks; efficiency-seeking, aiming to improve the competitive position in international markets by rationalizing the value chain through vertical FDI in lower-cost locations; resource-seeking, when the foreign firm's main intention is to exploit natural resources available in the destination area, such as raw materials and energy. A fourth category, strategic asset-seeking, may be seen as a subset of resource-seeking FDI in search of specific assets to promote their strategic objectives, such as brands, marketing and distribution networks, specialised human capital or R&D capacity. This last category, however, is scarcely relevant for FDI in Balkan countries.

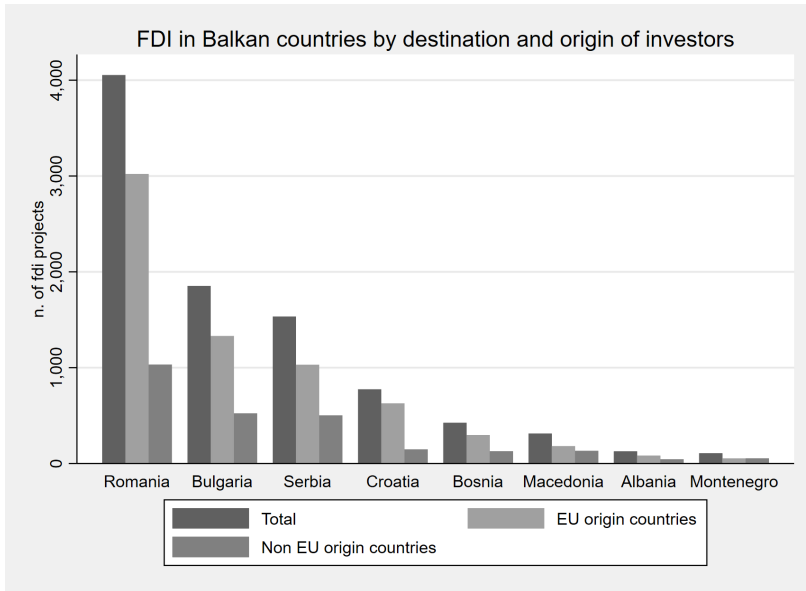


Fig. 2 FDI in Balkan countries by destination and origin of investors (2003-2019 total). Own elaboration on FDI markets data.

Logistics. Some residual activities remain out of the analysis, i.e., Maintenance & Servicing, Recycling and Technical Support Centre, which account for a total of 171 investments only.

Finally, Table 2 reports the summary statistics for all the variables included in our baseline specification, while Table 3 illustrates the years and destinations for which our main variables of interest, i.e., the dummies indicating the different stages of the European accession process, take value 1. Since all our regressors are lagged one year, a value equal to 1 for country i in year t indicates that this country was into that specific EU status in year $t-1$. For example, for Bulgaria, which entered the EU in 2007, the EU membership dummy is equal to 1 from 2008 onwards. For Croatia, which entered the EU in July 2013, the dummy takes value 1 from 2014. The prenegotiation dummy takes value 1 in the 3 years before the actual beginning of the negotiation talks, catching possible anticipation effects. Given to dataset limitations, this variable is not available for Bulgaria and Romania, which started their negotiation talks before the beginning of the period under analysis. As Table 3 shows, our EU dummies have a good individual and time variability, including countries that went through all the phases of the process as well as others that have not started the negotiation phase either.

4 Results

Table 4 reports the baseline results. In column 1 only the standard determinants are included, i.e. market size and growth variables, wages, openness to

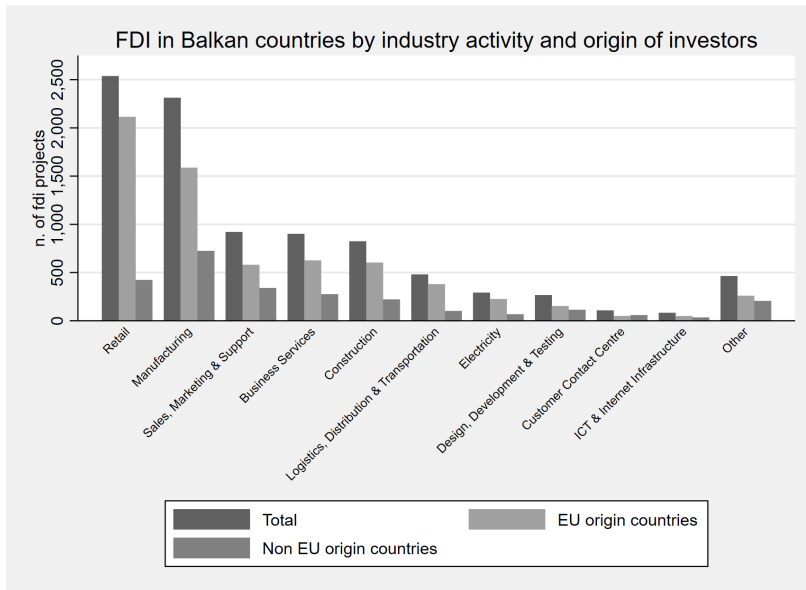


Fig. 3 FDI in Balkan countries by industry activity and origin of investors (2003-2019 total). Own elaboration on FDI markets data.

trade and governance. As expected, the GDP per capita and the population size are positively and significantly related to the probability of receiving an FDI, although the coefficient of the other market measure, the GDP growth, is significantly negative. The wage variable indicates that foreign investors are attracted by relatively lower labour costs, fulfilling our expectation that firms are sensitive to cost reduction when investing in Balkan countries and in line with results from ?. This is especially reasonable considering the relatively high weight of manufacturing FDI in our sample. The coefficients of trade openness and regulatory quality, both considered at the beginning of the period, are positive but not significant. In column 2, we add our main regressors of interest, i.e., the four dummies indicating the status of the destination country in terms of its accession to the European Union. Results show that all stages are associated with positive gains in FDI and bring out an increasing effect from the prenegotiation phase to the approval status. After the approval, the magnitude of the correlation weakens, and the coefficients associated to the actual EU membership status are smaller than those of the approval phase, but always positive. Therefore, our analysis expands the validity of the results from ? on the positive effect of entering the EU on FDI to Balkan countries. This difference in coefficients is confirmed throughout all the specifications, as the Wald tests at the bottom of the table show, and not only confirms the role of announcement effects on location choices in Balkan countries, as previously identified by ?, but also points out at the approval step as a crucial one in the integration process and in reducing the uncertainties perceived by investors. As for the coefficients of the other variables, the main changes relate to the

Table 2 Summary statistics

Variable	Mean	Std. Dev.	min	max
log gdp pc	8.63	.45	7.46	9.71
gdp growth	3.46	3.09	-7.32	10.43
log population	15.2	.96	13.32	16.89
wage	.63	.3	.14	1.55
initial regulatory quality	-.1	.38	-.62	.56
initial trade	74.79	14.6	53.71	95.28
intra-firm agglomeration	.43	2.25	0	56
country-of-origin agglomeration	36.11	87.25	0	777
industry agglomeration	92.36	166.67	0	1007
common language	.02	.13	0	1
same country	.05	.22	0	1
weighted distance	2.33	2.69	.07	18.11
EU membership	.23	.42	0	1
EU approval	.07	.26	0	1
EU negotiations	.16	.36	0	1
prenegotiation	.05	.23	0	1
EU origin	.72	.45	0	1

Note : the number of observations is 73,480 for all variables. The total number of greenfield FDI projects is 9,185.

Table 3 EU status dummies

EU dummy	Prenegotiation	EU Negotiations	EU Approved	EU Membership
Albania	2018 - 2019			
Bulgaria		2003 - 2004	2005 - 2007	2008 -
Bosnia -Herzegovina				
Croatia	2003 - 2005	2006 - 2011	2012 - 2013	2014 -
Macedonia	2018 - 2019			
Montenegro	2010 - 2012	2013 -		
Romania		2003 - 2004	2005 - 2007	2008 -
Serbia	2012 - 2014	2015 -		

initial trade, which remains positive and turns significant at 5%, and to the *initial regulatory quality*, which turns significantly negative.

In column 3 we include three measures of agglomeration, the first measured as the cumulated number of FDI that targeted country *I* until time *t*-1 from the same investing firm (*intra-firm agglomeration*), the second as the cumulated number of FDI that targeted country *i* until time *t*-1 from the same origin country as the new investment (*country-of-origin agglomeration*) and the third as the cumulated number of FDI that targeted country *i* until time *t*-1 in the same industry activity as the new investment (*industry agglomeration*). The first two measures proxy the access to information about the destination country that the investing firm or firms in the source country can access and turns out to positively and significantly affect the probability of attracting an FDI. The third one, instead, proxies for information spillovers arising from the agglomeration of foreign firms operating in the same industry and appears to

be negatively related to the location choice, indicating that foreign firms prefer to enjoy a sort a “first mover advantage” and to locate in countries where there are not yet many other foreign firms operating in the same industry activity. In column 4, we add the bilateral variables measuring the geographical and cultural proximity in the origin-destination couple. The distance between the origin and destination countries is negatively related to the probability of receiving an FDI whereas a common language and a shared country history, measured by the *same country* dummy, seem to positively affect FDI flows. The coefficients for all the other variables do not report remarkable changes. Finally, destination dummies are included in column 5 to account for host country specificities that could bias our results. Time invariant regressors, i.e., *initial trade* and *initial regulatory quality*, have been excluded from this model in order to avoid collinearity with the destination dummies. Adding the dummies leaves our main regressors mostly unaltered, while some changes concern our market size and wage controls. The GDP per capita and the population variables are now negative, although only slightly significant, while the GDP growth is now positive and significant and wage is always negative but no more significant. This last specification is the baseline for the analyses exploring origin and industry heterogeneity in Tables 5, 6 and 7.

In Table 5, we present results disaggregated according to the origin of the investors. Specifically, column 2 reports results for EU investors, which represent more than 70% of the sample, while column 3 considers only non-EU investors. Column 1 reports—to ease comparison—results of the baseline specification of Table 4, column 5.

As for our main variables of interest, the ones related to the EU accession, some differences emerge between EU and non-EU investors. The effect of the EU status is generally larger for the former group and this is especially so for the prenegotiation and the membership variables, which result to be insignificant for non-EU firms. All the coefficients for the EU dummies are positive, and the pattern previously identified, that is, the increasing trend in the magnitude of the correlation from the prenegotiation to the approval phase followed by a weaker effect of the membership, is confirmed for both groups of investors. Some specificities emerge for country-of-origin agglomeration and the language commonality. Country-of-origin agglomeration, which is positively related to FDI location for the whole sample, appears to be a significant determinant only for non-EU investors thereby suggesting that information advantages from previous investments of firms from the same origin countries are larger the lower the knowledge of the host country. On the contrary, common language only seems to be a significant attraction factor for firms from EU countries. As for the standards locations factors, the negative coefficient of *log gdp pc* and *log population result* to be driven by EU investors.

In Table 6, we explore the industry heterogeneity of FDI flows in the Balkans by disaggregating the investment sample in the three broader groups of activities described in the previous section, namely Manufacturing (column

1), Services (column 2), and Resource-related activities (column 3), with services accounting for more than half of the investments. Functional specificities emerge for both our variables of interest and standard determinants. The EU membership variable, which is positive in our baseline specification, turns significantly negative for FDI in manufacturing, while it remains positive and highly significant for service and resource-related FDI, in line with what we had hypothesized from the analysis of the literature dealing with risk and uncertainty for different FDI functions. All the other EU dummies are significantly positive, with the approval phase appearing to be the most strongly correlated with FDI attraction across all the functional categories. As for agglomeration dynamics, the major difference emerges in relation to industry agglomeration, whose coefficient turns positive and significant for resource-related activities while remaining negative for the other two groups. This suggests that the “first mover advantage” identified in the main results does not play a role for firms investing in resource-related activities, who seem to seek for more functional concentration. On the contrary, resource activities do not appear to rely on country-of-origin agglomerations, which is instead a significant factor for the other two groups. Other sources of heterogeneity arise from the market size and the wage variables. As for the latter, only manufacturing firms seem to seek for low-cost locations, in line with the theory ?.

Finally, in Table 7 we explore the industry heterogeneity in FDI location for EU and non-EU investors. The finding from the previous table concerning the negative influence of being an EU member on manufacturing inflows results to be driven by the European origin group. Overall, EU firms investing in manufacturing appear to be less positively concerned by the status of the accession process of host countries compared to non-EU investors in the same function and to EU investors in services and resource-related activities. The same seems to be true for non-EU investors in services, although in this case the coefficients are always positive. In relation to agglomeration economies, results show that the previously identified positive effect of industry agglomeration for resource-related FDI is determined by EU investors, while non-EU FDI in services and resource activities are the only ones for which a positive and significant correlation with country-of-origin agglomeration emerges. Among the other variables, *common language* emerges since its coefficients, previously positive across all the models although not significant for non-EU investors, turn out to be positive and significant only for EU investments in services and non-EU flows in manufacturing.

5 Concluding remarks

Using conditional logit models on investment-level data, we studied the location choices of 9,185 greenfield FDI locating in 8 Balkan countries from 84 origin countries worldwide over the 2003-2019 period.

Our analysis aims at disentangling the differential effects that different phases of the EU accession process, namely prenegotiation, negotiation,

approval and effective membership, may have on the probability of a Balkan country to receive an FDI. We find that all stages are associated with positive gains in FDI and identify an anticipation effect which emerges from the approval phase and affects European and non-European investments as well. This result brings out the role of both actual and perspective EU membership in determining location choices in Balkan countries and points at the approval step as a crucial one in the integration process and in reducing the uncertainties perceived by investors. Although different patterns arise when exploring the industry heterogeneity of investments, FDI location across all activities and all investor origins appears to be positively related to all the phases of the EU accession process. The only exception is the negative effect of being an EU member destination on the location of FDI in manufacturing.

It would be interesting to replicate this analysis for the CEE countries to assess whether the different role played by the combinations accession stages/-country of origin/industry is confirmed. Furthermore, replicating the analysis with more recent data, due to the ongoing accession process to the EU of Balkan countries, and disentangling the locational strategy of the two largest non-European FDI countries of origin, namely US and China, represent two additional fruitful complements to the present paper.

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Table 4 Baseline results

	(1)	(2)	(3)	(4)	(5)
log gdp pc	0.588*** (0.117)	0.728*** (0.148)	0.725*** (0.150)	0.538*** (0.152)	-0.404* (0.214)
gdp growth	-0.015** (0.007)	0.002 (0.007)	-0.002 (0.008)	0.002 (0.008)	0.019** (0.008)
log population	1.073*** (0.028)	0.938*** (0.039)	0.936*** (0.040)	0.894*** (0.041)	-2.164* (1.237)
wage	-0.728*** (0.139)	-0.971*** (0.167)	-1.025*** (0.170)	-1.118*** (0.171)	-0.322 (0.233)
initial regulatory quality	0.049 (0.058)	-0.410*** (0.072)	-0.432*** (0.073)	-0.301*** (0.076)	
initial trade	0.003 (0.002)	0.007*** (0.002)	0.008*** (0.002)	0.001 (0.002)	
EU membership		0.494*** (0.106)	0.489*** (0.107)	0.614*** (0.109)	0.530*** (0.134)
EU approval		1.035*** (0.086)	1.062*** (0.087)	1.169*** (0.089)	1.063*** (0.116)
EU negotiations		0.611*** (0.061)	0.644*** (0.062)	0.693*** (0.063)	0.491*** (0.080)
EU_prenegotiation		0.430*** (0.066)	0.462*** (0.067)	0.487*** (0.068)	0.499*** (0.073)
intra-firm agglomeration			0.192*** (0.008)	0.183*** (0.008)	0.181*** (0.008)
country-of-origin agglomeration			0.719*** (0.163)	0.413** (0.168)	0.618*** (0.176)
industry agglomeration			-0.902*** (0.104)	-0.767*** (0.106)	-0.834*** (0.118)
common language				0.472*** (0.084)	0.359*** (0.084)
same country				1.319*** (0.069)	1.318*** (0.070)
weighted distance				-0.263*** (0.073)	-0.343*** (0.076)
ALB					-4.442*** (1.141)
BGR					-0.064 (0.099)
BIH					-2.816*** (0.888)
HRV					-1.856*** (0.660)
MKD					-4.214*** (1.570)
MNE					-7.973*** (3.055)
ROU					3.005** (1.302)
SRB					0.000 (.)
N	73480	73480	73480	73480	73480
prenegotiation = EU negotiations		[0.0022]	[0.0023]	[0.0006]	[0.9137]
EU negotiations = EU approval		[0.0000]	[0.0000]	[0.0000]	[0.0000]
EU approval = EU membership		[0.0000]	[0.0000]	[0.0000]	[0.0000]
Dest dummies joint significance					[0.0000]

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; F-test p-values in square brackets

Table 5 Origin country heterogeneity

	(1) all	(2) EU	(3) non-EU
log gdp pc	-0.404* (0.214)	-0.628** (0.260)	-0.506 (0.411)
gdp growth	0.019** (0.008)	0.013 (0.010)	0.034** (0.015)
log population	-2.164* (1.237)	-4.350*** (1.570)	2.122 (2.116)
wage	-0.322 (0.233)	-0.296 (0.282)	-0.063 (0.438)
EU membership	0.530*** (0.134)	0.640*** (0.162)	0.380 (0.247)
EU approval	1.063*** (0.116)	1.176*** (0.140)	0.751*** (0.217)
EU negotiations	0.491*** (0.080)	0.466*** (0.097)	0.561*** (0.143)
EU_prenegotiation	0.499*** (0.073)	0.643*** (0.090)	0.192 (0.129)
intra-firm agglomeration	0.181*** (0.008)	0.154*** (0.008)	0.432*** (0.030)
country-of-origin agglomeration	0.618*** (0.176)	0.170 (0.192)	3.622*** (0.590)
industry agglomeration	-0.834*** (0.118)	-0.701*** (0.143)	-0.863*** (0.218)
common language	0.359*** (0.084)	0.426*** (0.150)	0.082 (0.140)
same country	1.318*** (0.070)	1.279*** (0.078)	1.739*** (0.218)
weighted distance	-0.343*** (0.076)	-0.893*** (0.134)	-0.243** (0.122)
ALB	-4.442*** (1.141)	-6.476*** (1.450)	-0.359 (1.947)
BGR	-0.064 (0.099)	0.171 (0.124)	-0.137 (0.184)
BIH	-2.816*** (0.888)	-4.457*** (1.131)	0.196 (1.505)
HRV	-1.856*** (0.660)	-2.921*** (0.835)	0.168 (1.142)
MKD	-4.214*** (1.570)	-7.049*** (2.002)	1.350 (2.668)
MNE	-7.973*** (3.055)	-13.662*** (3.886)	3.052 (5.210)
ROU	3.005** (1.302)	5.481*** (1.652)	-1.621 (2.230)
SRB	0.000 (.)	0.000 (.)	0.000 (.)
N	73480	52976	20504
prenegotiation = EU negotiations	[0.9137]	[0.0309]	[0.0036]
EU negotiations = EU approval	[0.0000]	[0.0000]	[0.1958]
EU approval = EU membership	[0.0000]	[0.0000]	[0.0055]
Dest dummies joint significance	[0.0000]	[0.0000]	[0.0000]

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

F-test p-values in square brackets

Table 6 Industry heterogeneity

	(1) Man	(2) Ser	(3) Res
log gdp pc	0.539 (0.530)	-0.311 (0.290)	-1.106** (0.528)
gdp growth	0.015 (0.017)	0.024** (0.011)	0.012 (0.019)
log population	3.309 (2.463)	-1.564 (1.735)	-10.240*** (3.162)
wage	-1.249** (0.532)	0.041 (0.314)	0.390 (0.560)
EU membership	-0.753** (0.295)	0.800*** (0.187)	1.014*** (0.335)
EU approval	0.527** (0.246)	1.018*** (0.164)	1.666*** (0.281)
EU negotiations	0.382** (0.179)	0.315*** (0.114)	1.174*** (0.194)
EU_prenegotiation	0.258* (0.140)	0.334*** (0.104)	1.161*** (0.176)
intra-firm agglomeration	0.918*** (0.058)	0.133*** (0.008)	0.306*** (0.032)
country-of-origin agglomeration	0.729** (0.366)	0.793*** (0.229)	0.587 (0.502)
industry agglomeration	-0.373 (0.402)	-1.618*** (0.168)	2.545*** (0.878)
common language	0.419** (0.170)	0.302*** (0.117)	0.308 (0.197)
same country	1.737*** (0.156)	1.182*** (0.099)	1.325*** (0.149)
weighted distance	-0.564*** (0.166)	-0.339*** (0.102)	-0.060 (0.176)
ALB	0.295 (2.259)	-3.607** (1.597)	-11.355*** (2.917)
BGR	-0.051 (0.208)	0.013 (0.140)	0.086 (0.249)
BIH	1.286 (1.747)	-2.411* (1.249)	-8.467*** (2.255)
HRV	0.154 (1.463)	-1.452 (0.925)	-6.192*** (1.686)
MKD	2.822 (3.105)	-3.511 (2.197)	-14.061*** (4.050)
MNE	4.292 (6.110)	-6.293 (4.280)	-27.241*** (7.832)
ROU	-2.586 (2.582)	2.510 (1.822)	11.082*** (3.341)
SRB	0.000 (.)	0.000 (.)	0.000 (.)
N	18496	40296	13272
prenegotiation = EU negotiations	[0.4136]	[0.8480]	[0.9355]
EU negotiations = EU approval	[0.3642]	[0.0000]	[0.0031]
EU approval = EU membership	[0.0000]	[0.0146]	[0.0001]
Dest dummies joint significance	[0.0000]	[0.0000]	[0.0000]

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

F-test p-values in square brackets

Table 7 Industry and origin country heterogeneity

	(1)	(2)	(3)	(4)	(5)	(6)
	Man	EU Ser	Res	Man	non-EU Ser	Res
log gdp pc	0.326 (0.663)	-0.293 (0.350)	-1.628** (0.654)	0.424 (0.946)	-0.761 (0.569)	-0.864 (0.996)
gdp growth	0.003 (0.021)	0.006 (0.013)	0.033 (0.022)	0.036 (0.030)	0.071*** (0.021)	-0.022 (0.038)
log population	1.284 (3.105)	-2.017 (2.207)	-17.637*** (4.082)	6.949 (4.332)	0.359 (2.933)	1.973 (5.321)
wage	-0.579 (0.665)	-0.158 (0.379)	0.077 (0.681)	-1.681* (0.938)	0.553 (0.601)	1.860* (1.114)
EU membership	-1.078*** (0.364)	1.027*** (0.226)	1.023** (0.402)	0.161 (0.525)	0.347 (0.347)	1.209* (0.636)
EU approval	0.310 (0.301)	1.241*** (0.197)	1.687*** (0.340)	0.982** (0.449)	0.437 (0.313)	1.643*** (0.528)
EU negotiations	0.161 (0.221)	0.372*** (0.140)	1.171*** (0.237)	0.838*** (0.319)	0.202 (0.203)	1.180*** (0.357)
EU_prenegotiation	0.378** (0.176)	0.465*** (0.129)	1.325*** (0.214)	0.065 (0.244)	0.034 (0.182)	0.630* (0.331)
intra-firm agglomeration	0.998*** (0.074)	0.117*** (0.008)	0.246*** (0.032)	0.739*** (0.091)	0.304*** (0.032)	0.731*** (0.114)
country-of-origin agglomeration	0.041 (0.424)	0.368 (0.248)	-0.377 (0.550)	1.655 (1.379)	3.970*** (0.750)	4.607** (2.014)
industry agglomeration	-0.116 (0.509)	-1.433*** (0.203)	4.475*** (1.056)	-0.432 (0.709)	-1.784*** (0.326)	-2.917* (1.746)
common language	-0.158 (0.353)	0.881*** (0.214)	0.067 (0.294)	0.436* (0.240)	-0.229 (0.205)	0.006 (0.361)
same country	1.562*** (0.173)	1.222*** (0.112)	1.413*** (0.165)	3.644*** (0.769)	1.525*** (0.289)	1.521*** (0.589)
weighted distance	-1.772*** (0.320)	-0.519*** (0.163)	-1.388*** (0.371)	-0.087 (0.261)	-0.441*** (0.168)	-0.059 (0.289)
ALB	-1.432 (2.843)	-4.049** (2.034)	-18.095*** (3.774)	3.720 (3.980)	-1.752 (2.691)	-0.111 (4.883)
BGR	0.751*** (0.273)	-0.032 (0.173)	0.730** (0.325)	-0.809** (0.377)	0.311 (0.268)	-0.215 (0.448)
BIH	-0.387 (2.213)	-2.740* (1.591)	-13.872*** (2.937)	3.848 (3.034)	-1.106 (2.101)	-0.176 (3.731)
HRV	-1.428 (1.844)	-1.576 (1.169)	-9.797*** (2.167)	2.310 (2.530)	-0.523 (1.604)	-1.083 (2.895)
MKD	0.122 (3.927)	-4.107 (2.804)	-23.279*** (5.259)	7.806 (5.437)	-1.091 (3.695)	1.216 (6.736)
MNE	-0.825 (7.714)	-7.658 (5.452)	-45.932*** (10.138)	13.366 (10.707)	-1.097 (7.231)	3.147 (13.110)
ROU	0.154 (3.247)	2.992 (2.320)	19.270*** (4.312)	-6.990 (4.562)	0.531 (3.073)	-1.816 (5.613)
SRB	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
N	12696	29560	9864	5800	10736	3408
preneg = EU negot	[0.2482]	[0.4237]	[0.4194]	[0.0048]	[0.3517]	[0.0812]
EU negot = EU approval	[0.4421]	[0.0000]	[0.0091]	[0.6391]	[0.2594]	[0.1611]
EU app = EU member	[0.0000]	[0.0404]	[0.0006]	[0.0051]	[0.6123]	[0.1876]
Dest dummies joint sig	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0001]

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

F-test p-values in square brackets