



The long way round:

Lessons from EU-CEE for improving integration and development in the Western Balkans

The long way round:

Lessons from EU-CEE for improving integration
and development in the Western Balkans

Contents

I. Abstract	6
II. Key findings and conclusions	7
III. Introduction	10
IV. Overview of the EU accession process of the EU-CEE countries	13
V. The impact of EU accession on regional economic integration in EU-CEE	19
V.1 Integration in terms of trade in goods	19
V.2 Integration in terms of trade in services	23
V.3 Integration in terms of FDI	26
VI. The impact of EU accession on income growth in EU-CEE	29
VII. The impact of EU accession on FDI inflows into EU-CEE	34
VIII. Implications for the Western Balkans	37
VIII.1 The impact of the EU accession process on regional integration and development to date	37
VIII.2 Applying the lessons from EU-CEE to the Western Balkans	39
IX. Appendices	43
IX.1 The econometric approach	43
IX.2 Additional econometric results	45
IX.3 The importance of initial conditions in industry	46
X. Figures and tables	50
Project Team	52
Publishing Information	52

I. Abstract

In our previous study “Pushing on a string? An evaluation of regional economic cooperation in the Western Balkans”, we concluded that a change in the EU’s strategy towards the Western Balkans is needed. The current strategy has failed to deliver regional economic integration and development, has resulted in very meagre progress towards full EU accession, and has generated huge disappointment and frustration in the region. Therefore, doing “more of the same” should not be an option; instead, much more EU integration for the region should be the priority. The formerly communist countries that joined the EU between 2004 and 2013 (EU-CEE) provide a much more successful example, as they have managed to achieve regional economic integration and economic development as part of broader EU integration.

With these conclusions as a starting point, we ask in the current study whether and how this successful example from EU-CEE can be replicated in the Western Balkans. More specifically, we investigate to what extent regional economic integration improved in EU-CEE after EU accession, identify the suspected reasons for this, and determine which lessons can be drawn from this experience for the Western Balkan economies.

Our main finding is that EU accession has indeed improved regional economic integration in EU-CEE, by 50 percent when measured in terms of trade in goods and services. We find that intraregional FDI inflows also increased after EU

accession, although to a lesser extent, and that only part of this improvement can be attributed to the EU accession itself. The main channel through which EU accession has enhanced regional economic integration has been the income channel. Higher GDP per capita in the region has increased demand for and the supply of products from the region, which in turn has increased intraregional trade and investment, and EU transfers appear to be one of the main determinants of the increase in income. In fact, doubling the annual EU transfers that a country receives results in an overall increase in its GDP of 14 percent.

These findings imply that the best way to foster regional economic integration and development in the Western Balkans would be through policies aimed at raising incomes, and that one way in which this can be achieved is by increasing EU transfers. This fits with our previous recommendations for the greatest possible integration of the Western Balkans into the EU, including through full access to the EU budget with the necessary conditionality attached. Even if full accession is still some way off, increasing regional economic integration and development would make the Western Balkan countries better able to meet the EU’s entry criteria. Moreover, it could also contribute to mitigating the region’s territorial and constitutional disputes, which also represent some of the main barriers to EU accession.

II. Key findings and conclusions

This study aims to derive some lessons from the EU accession process of the Central and Eastern European EU member states (EU-CEE) for the Western Balkan economies. More precisely, it investigates whether EU accession has improved regional economic integration in EU-CEE, what are the suspected reasons for this, and which lessons can be drawn from this experience for the Western Balkan economies. Three types of regional economic integration are analysed: trade in goods, trade in services, and regional foreign direct investment (FDI).

Three hypotheses for the impact of the EU accessions on regional integration are tested. The first is that EU accession improves incomes in the region, which creates a positive demand and supply shock and stimulates greater intraregional trade and investment. The second is that EU accession is accompanied by the entrance of foreign firms into the region, and that these firms cooperate among themselves, which in turn leads to greater intraregional trade and investment. The third hypothesis is that EU accession opens up space for broken trade and investment linkages to be re-established or for existing linkages to flourish, which in turn leads to more intraregional trade and investment.

Our key findings are:

1. **EU accession has improved regional economic integration in EU-CEE.** For these countries, trade in goods and services with each other increased by approximately 50 percent due to EU accession. Integration in terms of FDI also improved after accession, but to a much lesser extent, and we find no evidence that EU accession directly affected it.
2. **The dominant means by which EU accession improved intraregional trade integration in EU-CEE was the income channel.** By increasing incomes in the region, EU accession boosted demand for and the supply of goods and services from the region, which in turn increased intraregional trade.
3. **The most direct way that EU accession has increased incomes in EU-CEE has been through the EU budget transfers.** On average, these countries have received transfers from the EU budget equivalent to 2 percent of their GDP per year. Some of the countries, such as Bulgaria and Hungary, have received even more (roughly 3 percent). Our analysis points out that doubling the annual transfers (i.e. increasing them from 1 percent to 2 percent of GDP) leads to an overall increase in GDP of 14 percent, which is very sizeable. We find that higher government spending, stronger FDI inflows, greater political stability and better institutions also

increase incomes. It is very likely that EU accession positively influenced most, if not all, of these in EU-CEE.

4. **Initial conditions were important for integration.** Countries and industries that had greater regional integration in 2000 also integrated faster after EU accession. Our explanation for this is that EU accession opens up space for existing trade and investment linkages to develop further. We find that this holds true for all three types of integration, although to varying degrees. It applies to the largest extent in the case of exports of services and to the smallest extent in the case of FDI.
5. **The presence of foreign firms boosts regional integration in terms of exports of services, but it lowers integration in terms of goods.** The explanation for the former is that when a foreign company enters the region, it needs to use services for its operations (e.g. transportation), which it obtains from the region. However, this effect is small, as doubling FDI only increases regional integration in terms of exports of services by 5 percent. The explanation for the negative impact of FDI on trade in goods integration is that a greater presence of foreign companies in a country leads to higher exports to countries farther away from the region. As a result, regional exports as a share of total exports declines.
6. **We have not established a direct link between EU accession and FDI inflows.** According to our findings, neither EU membership nor EU transfers are significant determinants of FDI into the region. However, we do find that higher GDP leads to higher FDI inflows, and that EU accession has had a positive impact on it.
7. **The size of the economy has been found to have a negative effect on integration in terms of the export of goods.** In other words, the bigger the economy, the less intraregional integration in terms of exports of goods it will have. The explanation for this is that bigger economies have more exports to places farther away from the region, and that exports tend to make up a much smaller proportion of their GDP.
8. **Higher labour costs reduce integration in terms of exports of services, and higher labour productivity reduces integration in terms of exports of goods.** This is most likely because higher productivity and wages indicate greater competitiveness of one's exports on global markets, which leads to a relative orientation of trade away from the region.
9. The main implication of these findings for the Western Balkans is clear: **The most effective way to improve regional cooperation in the region is to enact policies aimed at raising incomes.** Higher incomes will lead to greater demand for goods and services from within the region as well as to greater supply, which in turn will lead to greater regional economic integration.
10. Our findings indicate that **one direct way for the EU to achieve this would be to increase budget transfers to the Western Balkans.** This could be done by granting the Western Balkan economies full access to the EU budget. While the costs of this for the existing EU member states would be marginal, the effects for the Western Balkan economies would be substantial.

11. The Economic and Investment Plan for the Western Balkans that the EU adopted in October 2020 is unlikely to be sufficient.

Its planned size of €9 billion would be equivalent to around 1 percent of the Western Balkans' collective GDP per year. In reality, the disbursed funds would be even smaller due to the relatively low absorption capacity of the Western Balkan economies. Thus, it will be very similar to the previous versions of the Instrument for Pre-accession Assistance (i.e. IPA I and IPA II), both of which failed to make any significant impact. **If, instead, the Western Balkan economies were granted full access to the EU budget,** even allowing for an absorption capacity that is still low but roughly equivalent to before in proportional terms, the amounts of funds they would receive would be several times higher than those under the Economic and Investment Plan. In turn, **the funds would have much greater impacts on their incomes and consequently on regional integration.**

12. For this to have the biggest possible impact, the greater transfers should be accompanied by strict conditions for institutional reforms.

Without better institutional quality and governance standards, the Western Balkans will not be able to absorb any increase in EU funding. However, reform progress is much harder with a restrictive economic model, a lack of strong financial support from outside, and doubts about the EU accession process. By contributing to a positive demand shock for the Western Balkans and facilitating better access to foreign capital as part of a credible accession process – which is something it would very comfortably deliver – the EU could be significantly increasing the likelihood that concrete progress will be made in the region on governance and structural reforms.

13. More funds for upgrading public infrastructure, a robust enlargement process, and more rapid progress on reforms would also help the Western Balkans to attract more and better-quality FDI inflows, which in turn would also help to drive up incomes. This is particularly important in the current context, as many Western companies are looking to shorten their supply chains as a result of the COVID-19 pandemic. As a result, these firms are considering near-shoring – that is, shifting production to places closer to their home markets, such as the Western Balkans.

III. Introduction

The EU accession process of the Western Balkan economies has been different from the accession process of the other Central and Eastern European countries that joined the EU over the past two decades (EU-CEE). For the Western Balkans, regional cooperation has been a key part of the accession towards EU membership in the sense that they have also had to achieve certain benchmarks in terms of their mutual relations. For EU-CEE, on the other hand, regional cooperation was encouraged but never formally required. While this may be a consequence of the history of conflicts in the Balkans from the past several decades, it has also slowed down the accession process and may have also caused economic, social and political damage.

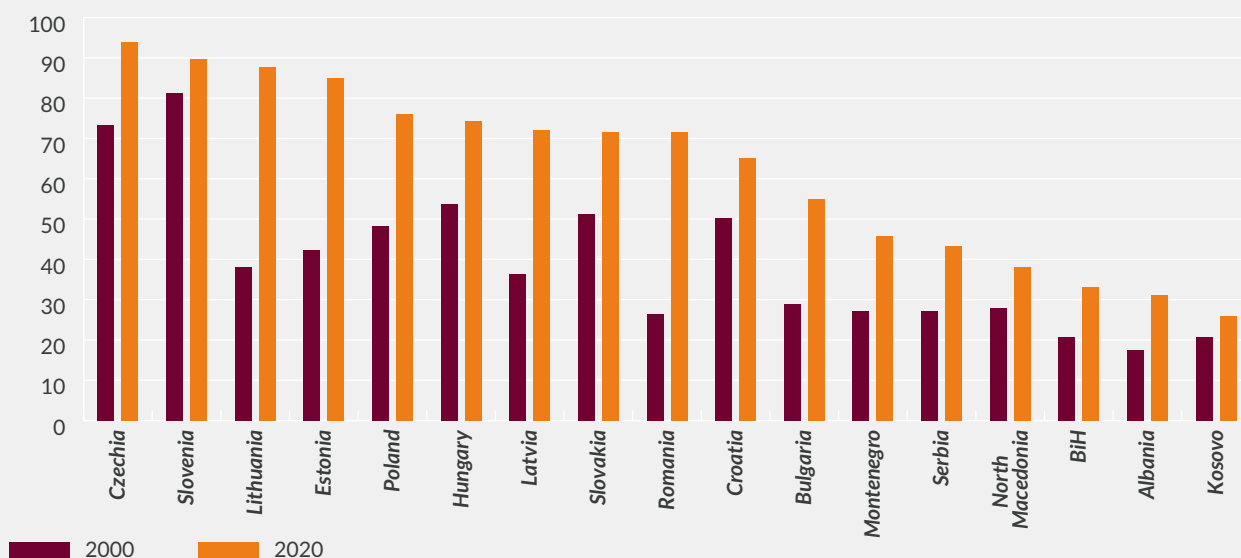
Our previous study “Pushing on a string? An evaluation of regional economic cooperation in the Western Balkans” (Grieveson et al. 2020b) evaluated the success of the EU’s strategy of fostering regional cooperation in the Western Balkans over the last two decades. It found that although intraregional trade and investment within the Western Balkans have deepened in the last 20 years and intraregional infrastructure connectivity has improved, this has not led to much economic convergence with the rest of Europe. Standards of living in the Western Balkan economies are lagging behind not only those of the older EU member states, but also those of the new member states from Central and Eastern Europe (see Figure 1).

We have accordingly argued that a change in strategy is needed, and that instead of focusing on regional cooperation within the Western Balkans, efforts should focus on facilitating a greater level of economic integration of the Western Balkans into the EU. The priority should be placed on replicating the economic aspects of EU accession to the greatest possible extent.

With the present study, we want to go one step further and see which lessons can be drawn from the regional integration of EU-CEE for the regional integration of the Western Balkans. More concretely, we aim to quantify the increase in regional economic integration after EU accession, to investigate which factors have driven regional economic integration in EU-CEE, and to assess whether EU accession has played a role in this. In order to do this, we will also test three hypotheses regarding the role that EU accession plays in terms of fostering regional integration.

The first hypothesis (referred to in what follows as the “income hypothesis”) is that EU accession leads to an increase in incomes in the region, which increases the demand for products coming from the region, which in turn leads to greater intraregional trade and investment. Higher incomes can also generate a positive supply shock (i.e. greater production and productivity in the region), which may also lead to greater intraregional trade and investment.

FIGURE 1 GDP per capita in purchasing power standards as a percentage of EU-27 GDP (in 2000 and 2020)



Sources: wiiw, Eurostat, national sources | © Bertelsmann Stiftung and wiiw.

The second hypothesis (referred to in what follows as the “foreign firms hypothesis”) is that EU accession leads foreign companies to enter the region. These companies need to source inputs locally and require local services, such as logistics or insurance, leading to the creation and expansion of complex trade and services supply chains within and between EU-CEE countries (the automotive sector is a good example of this). This then leads to greater intraregional trade and investment.

The third hypothesis (referred to in what follows as the “previous linkages hypothesis”) is that EU accession creates opportunities for broken business linkages to be re-established as well as for existing business linkages to flourish further. The early phase of transition in the 1990s, for example, broke many trade and investment connections between these countries. It may be the case that EU accession simply allowed for their renewal or perhaps just coincided with it. Meanwhile, existing business relationships

between countries are likely to develop further after EU accession, which will also result in increased intraregional trade and investment.

We analyse three types of economic integration: intraregional trade in goods, intraregional trade in services, and intraregional direct investment (i.e. regional FDI). We define each of them in terms of the proportion of overall trade/investment in a country made up by regional trade/investment.

We group the EU-CEE countries into three regions: “Visegrad” (Czechia, Hungary, Poland and Slovakia), “Baltics” (Estonia, Latvia and Lithuania) and “Balkan EU” (Bulgaria, Croatia and Romania). We exclude Slovenia from the analysis because even though it joined the EU along with the Visegrad and Baltic countries, it does not belong geographically to either of these groups. What’s more, since the academic literature is inconclusive about how to treat Slovenia, we adopt the approach of excluding it in order to

ensure maximum clarity from our results.

We apply two types of analyses. Firstly, we undertake a descriptive analysis of the main indicators to provide a clear overview of the developments relevant to the study. Secondly, we perform several econometric analyses to assess more rigorously which factors have affected the outcomes of interest, whether EU accession has played a role, and whether the above-postulated hypotheses are supported by the data. Appendix IX.1 describes in greater detail the approach taken in the econometric analysis.

After we analyse regional integration in EU-CEE, we discuss and further elaborate on the main findings, such as by illustrating them with concrete examples. In the end, we extrapolate the findings obtained for the EU-CEE to the Western Balkans so as to come up with recommendations on what should be done in order to improve regional integration there and to determine which concrete policies are likely to have the biggest possible impact.

The rest of the study is organised as follows: In Chapter IV, we present a brief overview of the EU accession process of the EU-CEE countries as a general background for the analysis to follow. Chapter V then presents a descriptive and econometric analysis of EU-CEE regional integration in terms of exports of goods, exports of services, and FDI. In Chapter VI, we look at how EU accession has affected income growth in EU-CEE and, in Chapter VII, how it has affected FDI inflows. Lastly, Chapter VIII discusses the implications of the findings for the Western Balkans.

REFERENCE

Grieveson, Richard, Stefani Weiss, Mario Holzner, Goran Vukšić, Vladimir Gligorov, David Pichler, Isilda Mara and Pellumb Collaku (2020b). "Pushing on a String? An evaluation of regional economic cooperation in the Western Balkans." Gütersloh: Bertelsmann Stiftung.

IV. Overview of the EU accession process of the EU-CEE countries

The geopolitical climate prevailing in Europe in the period leading up to the accession of Eastern European countries in 2004 was supportive of the expansion of the EU. With the fall of the Berlin Wall and with former socialist economies transitioning to market capitalism, there was a general consensus regarding the desirability of unifying Western and Eastern Europe into a single bloc. The existing member states of the EU viewed the integration of their eastern neighbours as a means of advancing peace across the continent and marking a definitive end to the divisive Cold War era. The scale of the 2004 enlargement was also different from the previous and successive accessions, which had integrated only a handful of economies at a time. There were also clear economic interests behind this move, as eastern neighbours had cheap and abundant labour as well as relatively big markets, which made them very attractive investment destinations. Thus, as these post-socialist economies embarked on what they then referred to as a “return to Europe”, the EU-15 worked closely with them to carry out the political, economic and social reforms needed to prepare them for EU membership.

Things were slightly different with the 2007 enlargement. This enlargement was not that big in terms of the number of countries or their combined population, but it was still important in terms of its significance and impact. Several member states had reservations about Romania’s and Bulgaria’s readiness to join, but this was outweighed by their importance from

a geopolitical point of view. Their accession was also based on the assumption that the reforms not completed during the accession process could be completed once the two countries were “inside” the EU. Both countries were therefore placed under the newly created Corruption and Verification Mechanism (CVM) for judicial reform and corruption, and Bulgaria initially for organised crime, as well. Fourteen years on, the CVM remains in place for both countries, which indicates a lack of sufficient reform progress. This has dampened enthusiasm among some member states for more accessions, causing some indirect harm to the accession prospects of the Western Balkan economies.

For all of EU-CEE, the negotiations with aspiring member states progressed in phases based on the advances made in each country towards meeting the accession criteria. These criteria, also known as the “Copenhagen criteria”, set out key conditions and principles that must be adhered to before a country is permitted to join the EU. Specifically, they must: have well-functioning institutions that safeguard democracy, the rule of law and human rights; display a commitment to a market economy and the ability to deal with internal competition from the EU; and demonstrate compliance with membership obligations, including the comprehensive inclusion of EU law into the country’s legal system (EUR-Lex 2021). The 2007 accession was different in this regard, as Romania and Bulgaria did not meet all these conditions, which prompted the creation of the CVM.

As Table 1 shows, all 10 of the Eastern European countries that joined the EU in the fifth and sixth enlargements applied for membership between 1994 and 1996 and began to undertake the required restructurings. The initial idea was that all of these economies would join the EU at the same time. However, given their varying paces of progress towards meeting the requirements, only five of these countries (Czechia, Estonia, Hungary, Poland and Slovenia) were able to begin their negotiations in 1998, followed by the remaining five countries in 2000. Slovakia was the only country within the Visegrad sub-region to partake in negotiations at a later date as a result of the autocratic tendencies and rule-of-law violations present in the country before the change in government in 1998. Moreover, given the considerable institutional deficiencies that were still present in Bulgaria and Romania, their accession was subject to more conditionality and a three-year delay. The concerns primarily related to corruption, the judiciary and organised crime (CVCE.EU 2021). On the other hand, the

negotiations with Croatia began at a much later point (in 2005), and it joined the EU alone in 2013.

Overall, the EU accession of the EU-CEE countries went rather swiftly. The time period between the application for EU membership and the actual date of accession was longest for Romania (11.5 years) and Bulgaria (11 years). For the others, it was between eight and 10 years (Table 1). This is in stark contrast with the Western Balkan countries (Table 2), most of which applied for EU membership more than 12 years ago and are still a long way from joining (Bosnia and Herzegovina is the only exception, as it has “only” been waiting for 5.5 years because it applied at a later date). This is particularly evident for North Macedonia, which submitted its application 17.5 years ago (in 2004) but is still waiting to start its accession talks. Albania is a similar case, as it has already been waiting 12.5 years to start accession negotiations, which have only been started by Montenegro (in 2012) and Serbia (in 2014).

TABLE 1 Timeline of applications for EU membership and EU accession in CEE

Country	Date of application for EU membership	Beginning of accession negotiations	Date of EU accession	Years between application and accession
Hungary	31 March 1994	31 March 1998	1 May 2004	10
Poland	5 April 1994	31 March 1998	1 May 2004	10
Romania	22 June 1995	15 February 2000	1 January 2007	11.5
Slovakia	27 June 1995	15 February 2000	1 May 2004	9
Latvia	13 October 1995	15 February 2000	1 May 2004	8.5
Estonia	24 November 1995	31 March 1998	1 May 2004	8.5
Lithuania	8 December 1995	15 February 2000	1 May 2004	8.5
Bulgaria	14 December 1995	15 February 2000	1 January 2007	11
Czechia	17 January 1996	31 March 1998	1 May 2004	8
Slovenia	10 June 1996	31 March 1998	1 May 2004	8
Croatia	21 February 2003	3 October 2005	1 July 2013	10

Source: Based on CVCE.EU | © Bertelsmann Stiftung and wiiw.

TABLE 2 **Timeline of applications for EU membership and waiting times for the Western Balkan countries**

Country	Date of application for EU membership	Beginning of accession negotiations	Years since application for EU membership
Albania	28 April 2009		12.5
Bosnia and Herzegovina	15 February 2016		5.5
Montenegro	15 December 2008	29 June 2012	13
North Macedonia	22 March 2004		17.5
Serbia	22 December 2009	21 January 2014	12

Note: Kosovo has not yet applied for EU membership | © Bertelsmann Stiftung and wiw.

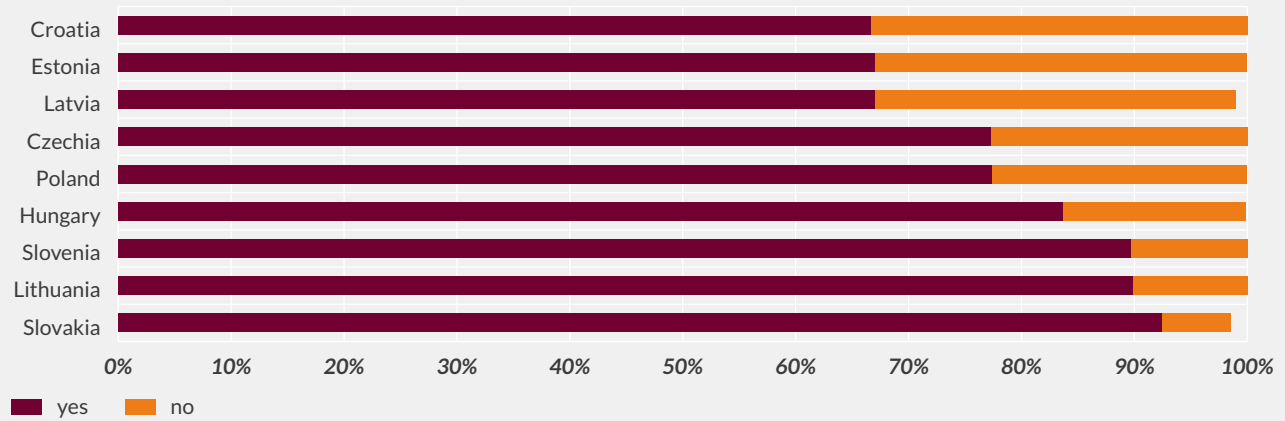
While the prevailing sentiments in the EU-CEE countries regarding EU accession have largely been positive, some differences can still be observed in the outcomes of referenda on EU membership (see Figure 2). Slovak citizens were by far the keenest to join the EU, while those of Poland, Czechia and the Baltic states remained somewhat more sceptical. At the same time, we can also see that the most recent new member, Croatia, was the most reluctant. Of course, this may not come as a surprise seeing that the Croatian referendum was held in 2012 – that is, during the European debt crisis and the EU-backed fiscal austerity measures, which had many negative social impacts and led many people to feel disappointed with the EU. In the case of Poland, this may be attributed to its large agricultural sector, which raised domestic concerns regarding the implications that EU membership could have on the sector's competitiveness (Gyárfášová and Mesežnikov 2021). In the Baltic states, on the other hand, aside from their big agricultural populations, the large share of votes against EU membership may have been due to the sizeable Russian populations there, which viewed EU accession as a threat to Russia.

The pre-accession processes of the 10 CEE countries to join the EU in 2004 and 2007 were financially supported by three flagship

instruments: the Poland and Hungary Assistance for Restructuring their Economies (PHARE) programme, the Special Accession Programme for Agriculture and Rural Development (SAPARD), and the Instrument for Structural Policies for Pre-Accession (ISPA). Despite its name, the scope of PHARE extended beyond Poland and Hungary to cover all 2004 and 2007 candidates and to assist them with economic and political restructuring. The aim of ISPA was to finance large-scale transport and environmental infrastructure projects, while SAPARD focused on helping countries to incorporate the body of EU law in the areas of agriculture and rural development.

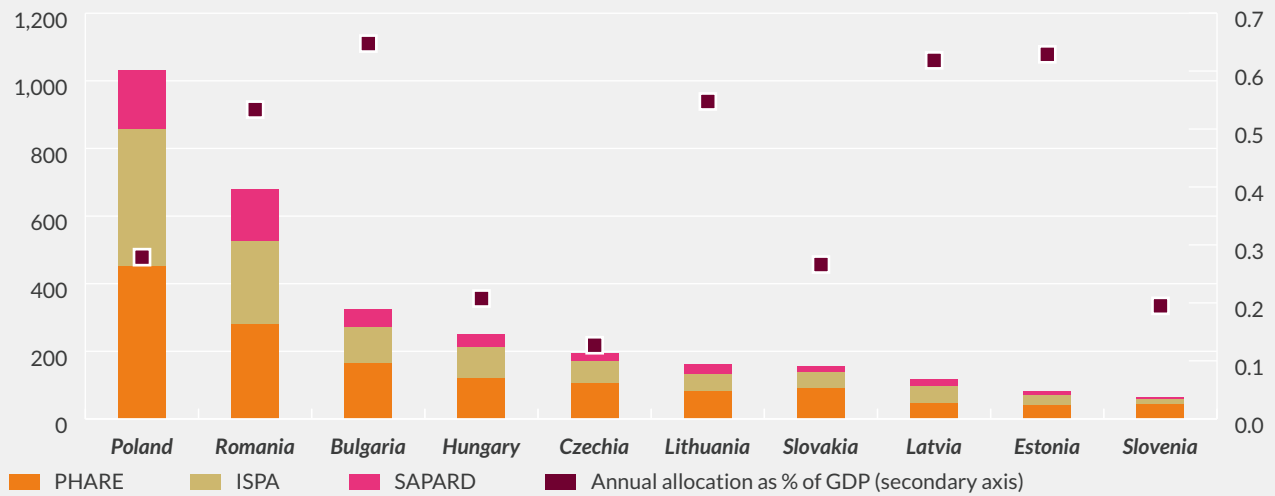
The total pre-accession transfers amounted to roughly €3 billion per year (in 1997 prices) over the 2000–2006 period, with over a half of this budget going to PHARE (European Commission 2002). In the case of PHARE, country-level allocations were mainly based on the respective population and GDP per capita of the economies, but it also took other factors into account, such as absorption capacity or the progress made towards satisfying the Copenhagen criteria. For ISPA, the same rules as for the EU Cohesion Fund applied. And, for SAPARD, allocations varied based on agricultural area, farming population and GDP per capita (ibid.). As Figure 3 shows, Poland and Romania were the largest recipients of pre-accession financing in absolute terms, with

FIGURE 2 Results of the referenda on EU membership in CEE countries



Note: Bulgaria and Romania did not hold referenda on EU membership
 Source: NSD European Election Database | © Bertelsmann Stiftung and wiw.

FIGURE 3 Annual allocations of pre-accession financing (in millions of € and as % of GDP)



Note: Expressed in 2002 prices. The shares of GDP are calculated using 2002 GDPs in PPS.
 Source: Based on European Commission (2002) | © Bertelsmann Stiftung and wiw.

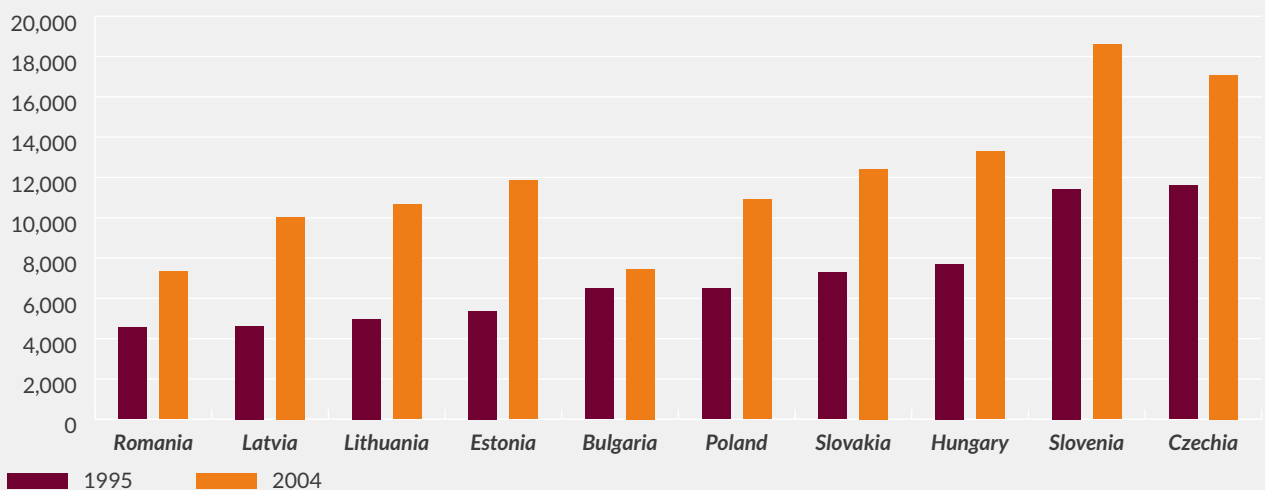
the annual transfers to the former amounting to over €1 billion. However, when looking at these figures relative to the share of the countries' GDPs, the 2007 joiners and the Baltic countries appear to be significantly larger beneficiaries than the Visegrad economies and Slovenia. Croatia also subsequently benefited from SAPARD and ISPA, which were later combined into a single channel called the Instrument for Pre-accession Assistance (IPA). Between 2007 and 2012, it received a total of €998 million (European Commission 2012).

These instruments – coupled with the reform agenda and the increased investment attractiveness associated with an upcoming EU accession – allowed the countries to experience impressive growth in the period between the application for and actual accession (Figure 4). Between 1995 and 2004, GDPs per capita jumped by an average of 117 percent in the Baltic states (which benefited most from the

pre-accession financial support), by 65 percent in the Visegrad countries, and by 38 percent in Bulgaria and Romania. In the case of Bulgaria, this percentage was dragged down by sluggish growth, and the country struggled to wisely utilise its pre-accession funds, which made up the largest allocation in relative terms.

The ratification of the accession of new members by the EU-15 countries went ahead without any major resistance, and the newly joined economies were allowed to integrate deeply into the EU in the subsequent years. These waves of enlargement have largely been viewed as part of the same agenda of integrating Western and Eastern Europe. Following the accession of the most recent entrant in 2013, the enlargement chapter seems to have now been closed for some time to come, with the focus having shifted towards internal issues associated with a more complex and diverse union.

FIGURE 4 GDP per capita in 1995 and 2004 (in PPS, EU-27 in 2020)



Source: wiiw | © Bertelsmann Stiftung and wiiw.

REFERENCES

- CVCE.EU (2021). "The enlargements of the European Union – Historical events in the European integration process (1945–2014)." www.cvce.eu/en/recherche/unit-content/-/unit/02bb76df-d066-4c08-a58a-d4686a3e68ff/e1e50a8d-abf0-42df-8c21-e7c4d5da676a (Accessed on 19 November 2021).
- European Commission (2002). "The Enlargement Process and the three pre-accession instruments: PHARE, ISPA, SAPARD." <http://aei.pitt.edu/38750/1/A3711.pdf> (Accessed on 18 November 2021).
- European Commission (2012). "Final EU pre-accession funding to help Croatia become a successful EU Member State." https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_12_1372/IP_12_1372_EN.pdf (Accessed on 3 December 2021).
- EUR-Lex (2021). Glossary of summaries – ACCESSION CRITERIA (COPENHAGEN CRITERIA). https://eur-lex.europa.eu/summary/glossary/accession_criteria_copenhagen.html (Accessed on 18 November 2021).
- Gyárfášová, Olga, and Grigorij Mesežnikov (2021). "V4 v názoroch verejnosti: Skúsenosti a výzvy." Bratislava: Inštitút pre verejné otázky. www.ivo.sk/buxus/docs/publikacie/subory/V4_v_nazoroch_verejnosti_skusenosti_a_nove_vyzvy.pdf ISBN: 978-80-89345-91-5 (Accessed on 3 December 2021).

V. The impact of EU accession on regional economic integration in EU-CEE

V.1 Integration in terms of trade in goods

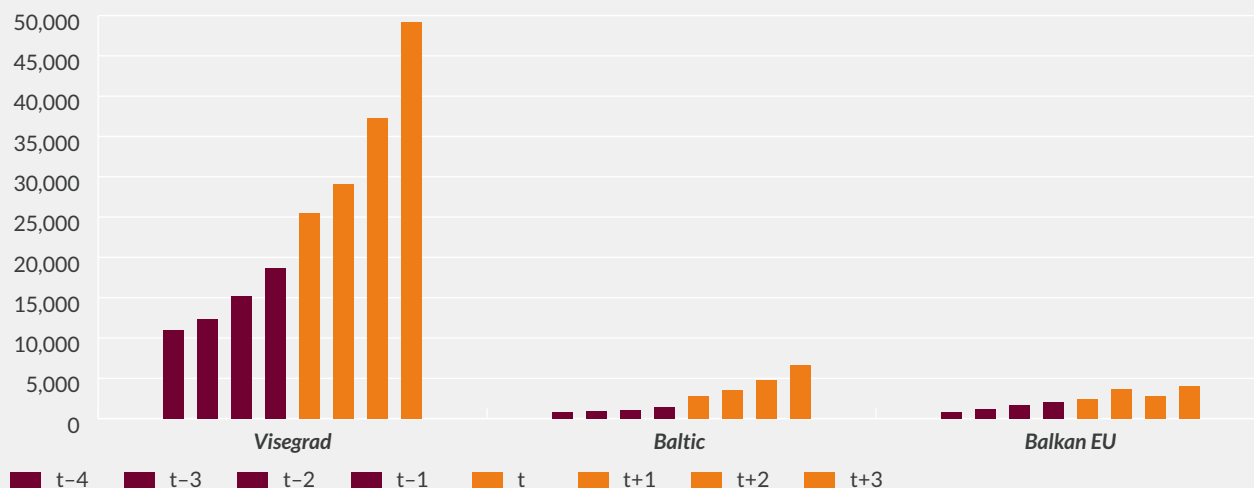
Key messages:

- *Regional integration in terms of exports of goods increased sizeably in EU-CEE countries after EU accession.*
- *EU accession itself has led to a significant (50 percent) increase in integration, which lends support to a positive answer to our main research question.*
- *Regional GDP has also been an important driver of the increased regional integration. A 1 percent increase in regional GDP has led to a 1.2 percent increase in regional integration, which lends support to the income hypothesis.*
- *Initial conditions have also been found to matter. Industries and countries that were more integrated before accession became even more integrated afterwards, which lends support to the previous linkages hypothesis.*
- *FDI stocks have been found to have a negative effect, which speaks against the foreign firms hypothesis. Countries and industries that have more FDI tend to have regional exports that make up a smaller share of total exports, which we attribute to their greater exports outside the region.*

Intraregional exports of goods in EU-CEE increased sizeably after EU accession, as can be seen in Figure 5. The figure shows the intraregional exports of goods before and after EU accession in nominal terms (i.e. in millions of euros). Exports have increased sizeably after EU accession in all three sub-regions. In Visegrad countries, they were around €19 billion before accession and reached €49 billion in just four years. In the Baltic region, the increase was even more pronounced – from €1.5 billion the last year before accession to €6.7 billion four years after accession. Intraregional exports have also increased in Balkan EU, though to a smaller degree – from €2 billion before accession to €3.9 billion four years after accession.

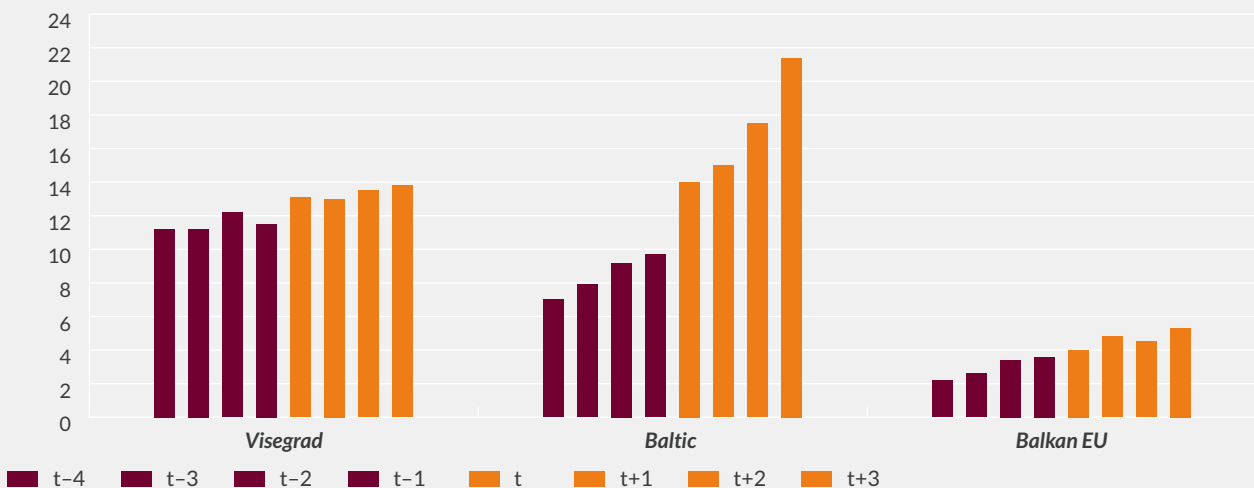
The increase in the nominal intraregional exports may have been driven by some wider global trends, as this was a period of rapid globalisation characterised by strong growth in international trade and investment. Thus, a better measure of intraregional economic integration would be the share of the region's total exports made up by intraregional exports. As can be seen in Figure 6, interregional exports as a share of total exports increased after EU accession in all three sub-regions, yet there were also notable differences among the sub-regions. The increase was most pronounced in the Baltic region, where intraregional exports were below 10 percent of total exports before accession and more than doubled in just four years. In the Visegrad countries, intraregional exports of goods accounted for roughly 11.5 percent of

FIGURE 5 **Intraregional exports of goods for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (in millions of €)**



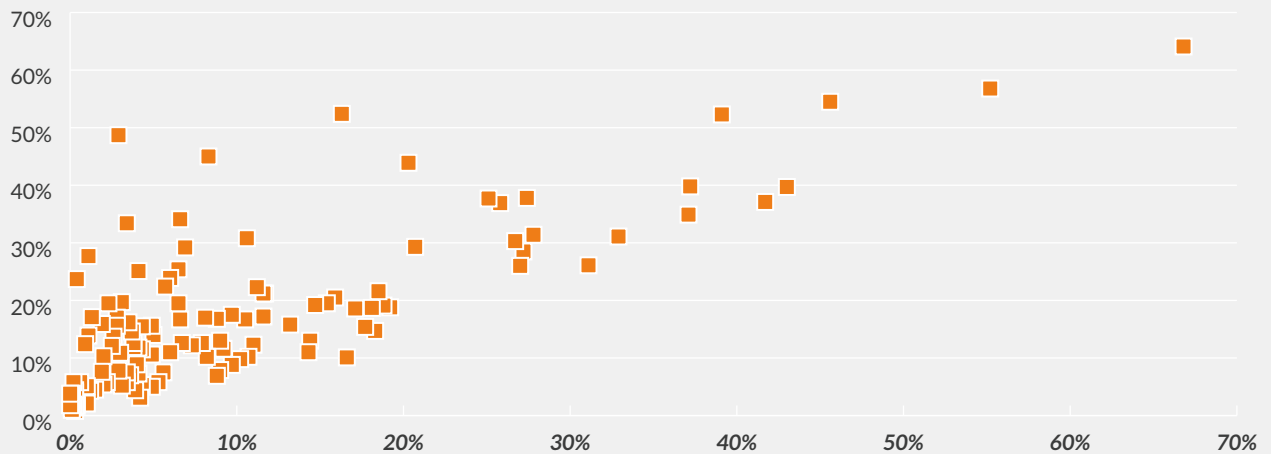
Note: "t" denotes the year of EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2004 for Visegrad and Baltic countries, 2007 for Bulgaria and Romania, and 2013 for Croatia.
 Source: UN Comtrade | © Bertelsmann Stiftung and wiiw.

FIGURE 6 **Intraregional exports of goods for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (as % of total exports)**



Note: "t" denotes the year of EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2004 for Visegrad and Baltic countries, 2007 for Bulgaria and Romania, and 2013 for Croatia.
 Source: UN Comtrade | © Bertelsmann Stiftung and wiiw.

FIGURE 7 Scatter plot showing regional integration in trade in 2000 and 2018 for industries from the goods sector



Note: Regional integration is measured as exports from EU-CEE countries to the rest of EU-CEE, as a share of total exports.
Source: UN Comtrade | © Bertelsmann Stiftung and wiw.

total exports before accession and subsequently increased to around 13.5 percent. In Balkan EU, where there has been much less regional integration, intraregional exports made up around 3 percent of total exports before accession and then increased to 5 percent after accession.

The results of the econometric analysis of regional integration in terms of exports of goods are shown in Table 3. The data indicate that EU membership has had a significant and positive influence on regional exports as a share of total exports, as regional integration in terms of the export of goods has increased by 50 percent since EU accession. An illustration of the effect is that if regional exports were 10 percent of total exports before joining the EU, they rose to 15 percent after joining the EU.

The effect of the initial regional integration has been found to be positive and significant, meaning that industries and countries that had higher integration in 2000 expanded even faster after accession. We find that the goods industries that had the greatest initial integration were those that manufacture coke and petroleum products, food

and beverages, and chemicals and pharmaceuticals. Most of them were from the Baltics, Czechia and Slovakia. We have also established a clear positive correlation between regional industrial integration in 2000 and 2018 (Figure 7). A more extensive analysis of the importance of initial conditions for integration in industry and services can be found in Appendix IX.3.

These findings for initial conditions represent a confirmation of the previous linkages hypothesis and imply that existing business networks are important for regional integration. Another way to interpret this finding would be to posit that if an industry/country is integrated into value chains with strong economies in the EU, it does not need intraregional cooperation. The size of the effect is such that a 1 percent increase in initial integration leads to a 3.7 percent increase in integration after EU accession. To illustrate the magnitude of the effect, let us take two industries, one with an integration of 5 percent in 2000 and the other with an integration of 5.5 percent (i.e. 10 percent bigger). After EU accession, the latter industry will have 37 percent more integration, or the difference between the

two will be 1.85 percentage points instead of the 0.5 percentage points in the beginning.

FDI stocks are found to have a negative effect. In other words, countries and industries that have more FDI tend to have regional exports that make up a smaller share of total exports. This speaks against the foreign firms hypothesis. This negative effect may be explained by positing that greater FDI leads to more exports outside the region. We investigate this explanation further below in this chapter.

Regional GDP (income) is found to be positive, implying that if the income in the region is growing, it will tend to lead to greater regional integration. This is in accordance with the income hypothesis. The size of the effect is such that a 1 percent increase in GDP leads to a 1.2 percent increase in regional integration. If GDP increases by 20 percent over the course of several years, this would be accompanied by a 24 percent improvement in regional integration in terms of trade in goods.

EU transfers are found to be statistically insignificant, meaning that they do not have effects on regional economic integration (at least apart from the effects resulting from the other variables included in the analysis). The same is found to be the case for the euro and the exchange rate.

The size of the domestic economy turns out to have a negative effect, which implies that regional exports will make up a smaller share of total exports in bigger countries. This may be explained by the higher exports of these countries outside the region, which we investigate at the end of this chapter.

Labour costs are found to be insignificant, while labour productivity is found to have a negative effect, which may again be explained by the higher levels of exports that these industries have to areas outside the region, which we investigate next.

TABLE 3 **Econometric results for regional integration in terms of exports of goods**

Dependent variable: Regional integration in export of goods	
EU membership	0.50*** (0.14)
Initial regional integration	3.78*** (0.27)
FDI stocks	-0.030** (0.015)
GDP per capita of region	1.18*** (0.28)
EU transfers	0.051 (0.042)
Euro	-0.016 (0.070)
GDP of economy	-0.13** (0.050)
Exchange rate	0.0034 (0.066)
Labour costs	0.026 (0.054)
Labour productivity	-0.042*** (0.010)
Constant	-11.7*** (2.91)
Observations	1,972
Pseudo R-squared	0.099
AIC	1,339.7

Note: Explanatory variables are shown in the first column, coefficients and standard errors in the second. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively | © Bertelsmann Stiftung and wiiv.

To investigate whether the negative results for the FDI, the size of the country, and the labour productivity result from the fact that these variables actually do have negative effects on regional exports or, alternatively, from the fact that they have an even greater effect on exports outside the region, we re-estimate the same regression, but this time using the nominal exports to the region (in millions of euros) as a

dependent variable. These results are shown in Table A1 of Appendix IX.2. One can see that the coefficients on the FDI and the size of the economy are positive and significant now, meaning that they both lead to higher exports to the region. This means that their negative coefficient previously resulted from the fact that they are causing even higher exports outside the region and not because they were reducing exports to within the region. Labour productivity, on the other hand, is found to be insignificant now, meaning that higher productivity does not increase exports within the region, but just exports outside the region.

V.2 Integration in terms of trade in services

Key messages:

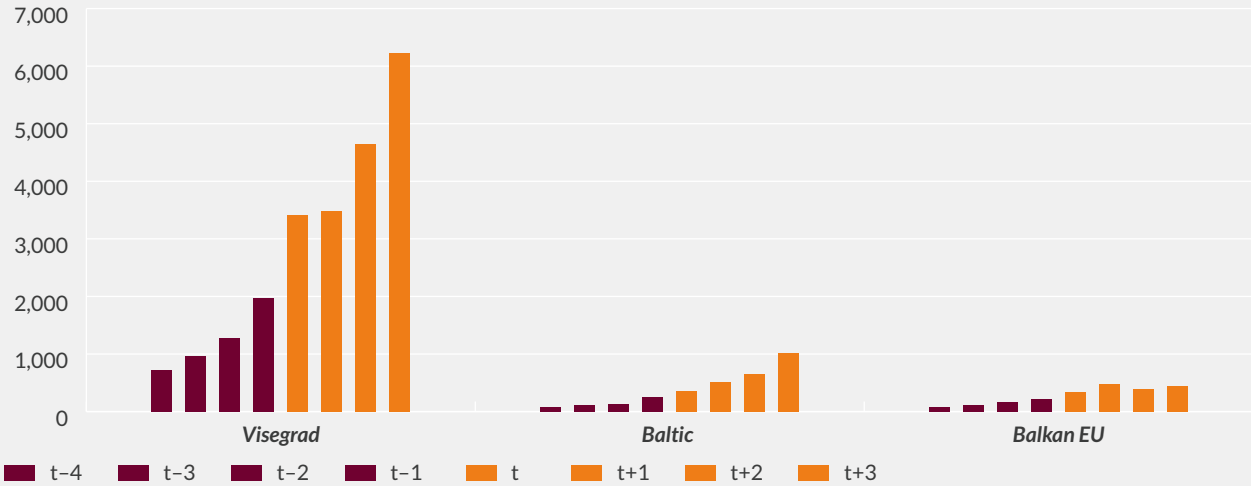
- *Regional integration in terms of exports of services has increased notably in EU-CEE after EU accession. EU membership itself has led to a 47 percent increase in integration, which is roughly the same as was the case regarding the exports of goods.*
- *The income hypothesis has appeared to hold true again – and, in fact, even more so than was the case regarding the exports of goods. A 1 percent increase in regional income leads to a 2.8 percent improvement in regional integration in terms of exports of services.*
- *Initial conditions are found to matter again and even more so than in the case regarding exports of goods, which supports the previous linkages hypothesis.*

- *Unlike for the exports of goods, the foreign firms hypothesis has turned out to hold true for the exports of services. Industries with higher FDI stocks have shown greater regional integration, although the effect has been found to be small as well as negligible in economic terms.*

After EU accession, exports of services followed a very similar trend to exports of goods. Figure 8 shows the nominal exports of services (in millions of USD). One can see that they have increased sizeably in all three sub-regions. In Visegrad, they jumped from \$2 billion before accession to more than \$6 billion four years later. In the Baltics, they increased from \$250 million before accession to more than \$1 billion after accession. Once again, the increase was slightly less pronounced in the Balkan EU sub-region, where intraregional exports of services amounted to roughly \$215 million before accession and climbed to \$450 million four years after accession.

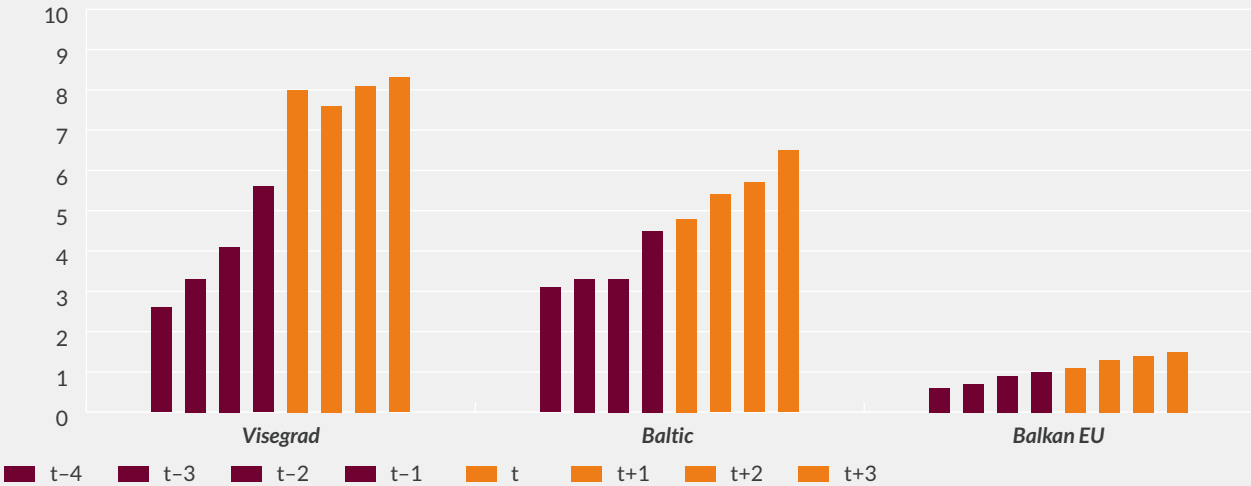
Again, the increase in the nominal exports of services might be due to various causes, so it is better to look at the intraregional exports of services as a share of total exports of services from the region. In Figure 9, one can again see that regional integration in terms of exports of services significantly improved after EU accession. In the Visegrad sub-region, intraregional exports of services were around 5.5 percent of total exports before accession but jumped to 8 percent in the first year after accession. In the Baltics, the increase was more gradual and slightly smaller – from 4.5 percent before accession to 6.5 percent four years after accession. In the Balkan EU sub-region, integration was again much smaller and the increase was less pronounced – from 1 percent before accession to 1.5 percent four years later.

FIGURE 8 Intra-regional exports of services for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (in millions of USD)



Note: "t" denotes the year of EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2004 for Visegrad and Baltic countries, 2007 for Bulgaria and Romania, and 2013 for Croatia.
 Source: World Input-Output Database | © Bertelsmann Stiftung and wiw.

FIGURE 9 Intra-regional exports of services for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (as % of total exports)



Note: "t" denotes the year of EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2004 for Visegrad and Baltic countries, 2007 for Bulgaria and Romania, and 2013 for Croatia.
 Source: World Input-Output Database | © Bertelsmann Stiftung and wiw.

Turning to the econometric analysis, Table 4 shows the results for the determinants of regional integration in terms of exports of services. EU accession is positive and significant, which indicates that when countries join the EU, their regional integration in terms of exports of services improves. The size of the coefficient is such that it indicates that regional integration improves by 47 percent after joining the EU. The effect is very sizeable and similar to the effect found for the integration in terms of exports of goods.

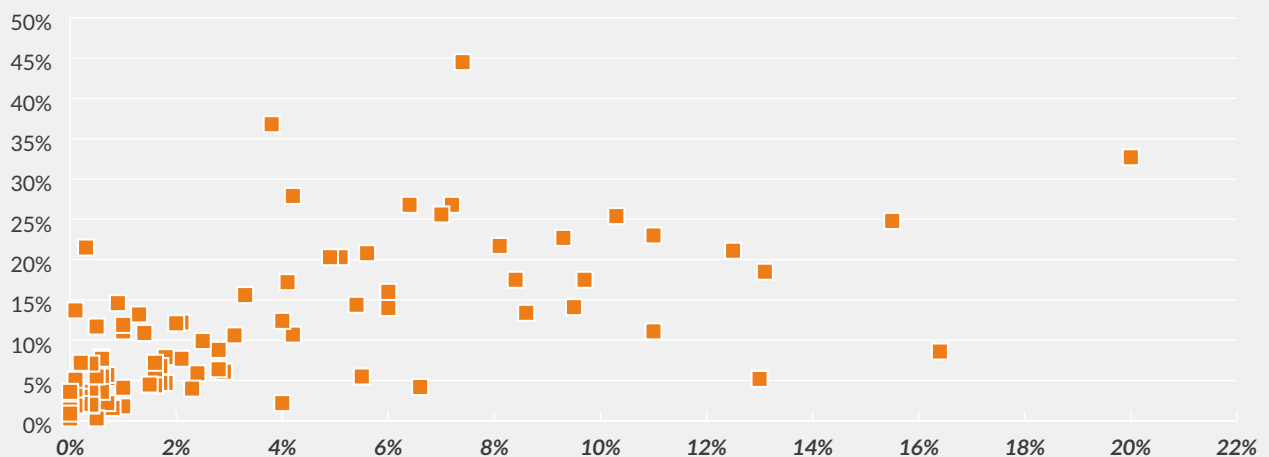
Initial regional integration is again positive, significant and even (2.5 times) stronger than was the case for the exports of goods case, which indicates that network effects are even more important for integration in terms of exports of services. The industries with the biggest initial integration were accommodation and food service activities; electricity activities; and professional, scientific and technical activities. Most of them were from the Baltic countries and Slovakia. As with goods (see Chapter V.1), there is a clearly positive correlation between initial integration and that of 2018 (Figure 10). A more extensive analysis of the importance of initial

conditions for integration in industry and services is available in Appendix IX.3.

FDI stocks are significant and positive in the case of services, which implies that foreign investment in the EU-CEE region improved regional economic cooperation in terms of exports of services, which is in accordance with the foreign firms hypothesis. However, the size of the effect has been found to be small. A 1 percent increase in FDI stocks improves regional integration in terms of exports of services by 0.05 percent. In other words, doubling FDI stocks (i.e. increasing them by 100 percent) will only improve regional integration by 5 percent.

Regional GDP is also positive and significant in the case of exports of services, and there is an even stronger coefficient than in the case for goods, which implies that the effects on income are more pronounced for the exports of services than of goods. The size of the effect is such that a 20 percent increase in GDP would lead to a 56 percent improvement in regional integration in terms of exports of services.

FIGURE 10 Scatter plot showing regional integration in trade in 2000 and 2018 for industries from the services sector



Note: Regional integration is measured as exports from EU-CEE countries to the rest of EU-CEE, as a share of total exports.
Source: World Input-Output Database | © Bertelsmann Stiftung and wiiv.

TABLE 4 **Econometric results for regional integration in terms of exports of services**

Dependent variable: Regional integration in export of services

EU membership	0.47*** (0.13)
Initial regional integration	9.83*** (0.94)
FDI stocks	0.045* (0.027)
GDP per capita of region	2.84*** (0.36)
EU transfers	-16.9*** (4.66)
Euro	-0.089 (0.10)
GDP of economy	-0.096 (0.068)
Exchange rate	0.24 (0.17)
Labour costs	-0.33** (0.17)
Labour productivity	0.11 (0.080)
Constant	-29.3*** (3.45)
Observations	1,405
Pseudo R-squared	0.101
AIC	655.8

Explanatory variables are shown in the first column, coefficients and standard errors in the second. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively | © Bertelsmann Stiftung and wiw.

EU transfers and labour costs are negative and significant in the case of exports of services, which we attribute to the higher level of exports outside the region. To support this explanation, we present the results for the nominal exports of services in Table A2 of Appendix IX.2. There, one can see that EU transfers and labour costs

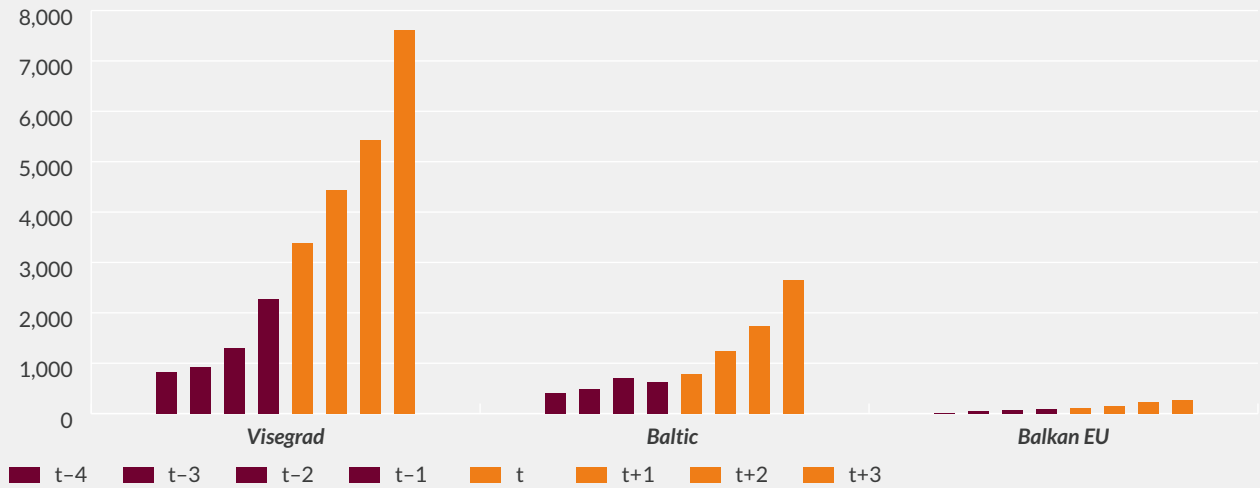
are insignificant (i.e. they do not reduce nominal exports to the region), which means that they increase exports to other destinations.

V.3 Integration in terms of FDI

- *Regional integration in terms of FDI improved in EU-CEE after EU accession, but to a smaller extent than was the case for the exports of both goods and services.*
- *More importantly, one cannot say that the improvement in regional integration was a direct consequence of EU accession. Regional income has appeared again to be a significant determinant of FDI integration, but its effect is much smaller than in the case of exports.*
- *The importance of initial conditions appear to still apply, as well, which lends support to the previous linkages hypothesis. But the effect has again been found to be smaller than in the case of exports of goods and services.*

Looking at the dynamics of FDI, one can also note upward trends in EU-CEE after EU accession. Figure 11 presents the nominal values for the intraregional inward FDI stocks (i.e. the FDI in a country coming from its own region) for the pre- and post-accession periods. There is clearly a sizeable increase after EU accession. In Visegrad countries, FDI from the region increased from €2.3 billion in the last year before accession to €7.6 billion four years later. In the Baltics, the figure increased from €600 million before accession to €2.6 billion four years later. The increase was pronounced in the Balkan EU sub-region, too, rising from €80 million before EU accession to €270 million four years after accession.

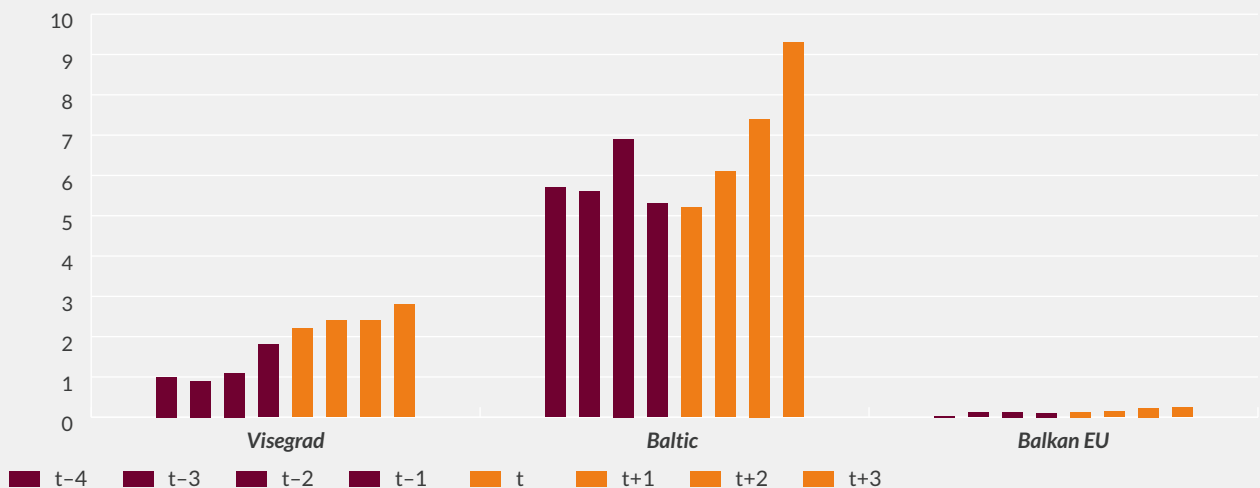
FIGURE 11 Intraregional inward FDI stocks for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (in millions of €)



Note: "t" denotes the year of EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2004 for Visegrad and Baltic countries, 2007 for Bulgaria and Romania, and 2013 for Croatia.

Source: wiiw FDI Database | © Bertelsmann Stiftung and wiiw.

FIGURE 12 Intraregional inward FDI stocks for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (as a % of total inward FDI stocks)



Note: "t" denotes the year of EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2004 for Visegrad and Baltic countries, 2007 for Bulgaria and Romania, and 2013 for Croatia.

Source: wiiw FDI Database | © Bertelsmann Stiftung and wiiw.

Figure 12 shows intraregional FDI as a share of the total FDI that the region is receiving. One can see here that the post-accession period has been marked by an increase in the share in all three sub-regions, although this increase is much less pronounced than in the case of exports of goods and services. In Visegrad sub-region, FDI from the region was 1.8 percent of total FDI before accession and increased to 2.8 percent four year after accession. In the Baltics, where intraregional FDI is notably higher, it averaged around 6 percent before accession and rose to around 7 percent after accession. Balkan EU countries have also seen improvement in intraregional FDI, even though integration there has again been notably smaller. FDI from the region was 1 percent before accession and climbed to 2 percent four years after accession.

The econometric analysis of the determinants of regional integration in terms of FDI is presented in Table 5. EU membership is positive but statistically insignificant, which implies that there is no evidence that EU accession has improved regional integration in EU-CEE as far as FDI inflows are concerned. Only two factors turn out to be significant for FDI: the initial economic integration and the regional GDP per capita. Both are positive, as in the case of exports of goods and services, which implies that higher initial economic integration leads to higher subsequent integration, and that if income in the region grows, FDI integration will also grow. But the size of the effects is much smaller than in the case of exports of goods and services.

TABLE 5 **Econometric results for regional integration in terms of FDI**

Dependent variable: Regional integration in terms of FDI

EU membership	0.00042 (0.0047)
Initial regional integration	0.94*** (0.051)
GDP per capita of region	0.039*** (0.012)
EU transfers	-0.00042 (0.0026)
Euro	0.014 (0.0091)
GDP of economy	-0.0043 (0.0036)
Exchange rate	-0.0022 (0.0018)
Constant	-0.26 (0.19)
Observations	180
Pseudo R-squared	
AIC	-879.7

Explanatory variables are shown in the first column, coefficients and standard errors in the second. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively | © Bertelsmann Stiftung and wiw.

VI. The impact of EU accession on income growth in EU-CEE

Key messages:

- *Income in EU-CEE countries, measured in terms of GDP per capita, increased substantially after EU accession.*
- *While this was especially pronounced in the Baltic countries, it was somewhat muted in the Balkan countries by the Great Recession and the European debt crisis, which happened shortly after these countries joined the EU.*
- *The econometric analysis has indicated that one of the main drivers of the income growth after EU accession was EU budget transfers, which averaged 2 percent of EU-CEE GDP for the entire period and have been even higher in more recent years.*
- *Other factors that have been found to be important for income growth are political stability, FDI stocks and government spending, which can also at least partly be linked to EU accession.*

The results in Chapter V show that regional income levels have been a significant determinant of regional integration in terms of goods, services and FDI. Thus, we next explore the evolution of income in the EU-CEE countries after EU accession in order to assess whether EU accession has increased income in the region.

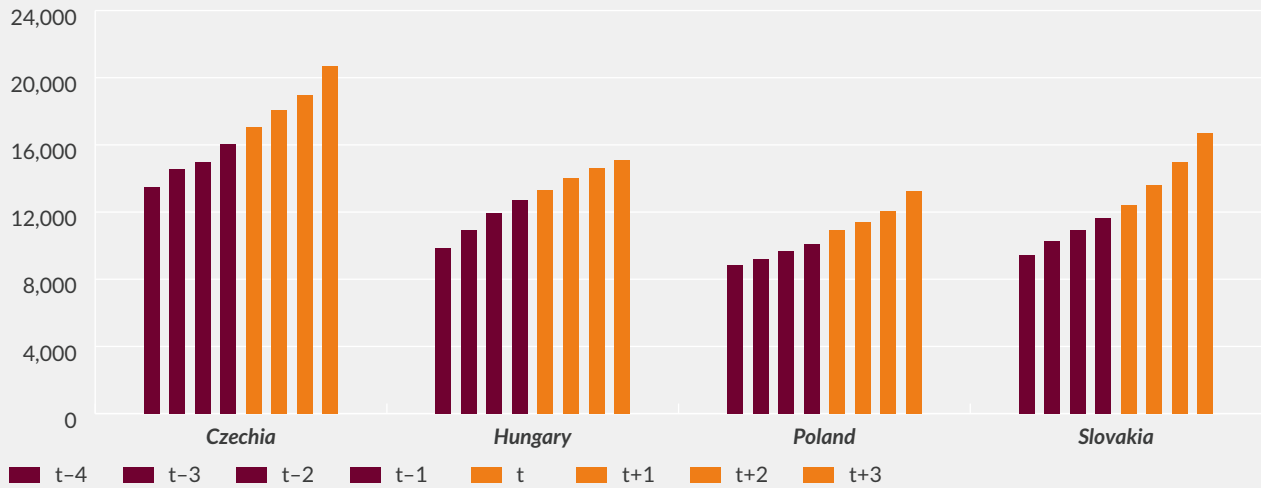
We begin by presenting the dynamics of GDP per capita in the EU-CEE countries before and after EU accession. Figures 13–15 show this data for the Visegrad, Baltic and Balkan EU countries, respectively. The real GDP per capita is displayed in terms of purchasing power standards.

As can be seen in Figure 13, GDP per capita increased significantly in all Visegrad countries after EU accession. Concretely, it increased by 29 percent in Czechia in a four-year period (in this case, between 2003 and 2007), by 19 percent in Hungary, by 32 percent in Poland, and by 44 percent in Slovakia. In all countries except Hungary, the growth rates after joining the EU were higher than before.

Figure 14 shows the same for the Baltic countries, where the growth after EU accession was even stronger. Specifically, after joining the EU, Estonia's GDP per capita grew by 63 percent over four years, Latvia's by 58 percent, and Lithuania's by 52 percent. In all three countries, the growth rates in the post-accession years were stronger than they were in the pre-accession years.

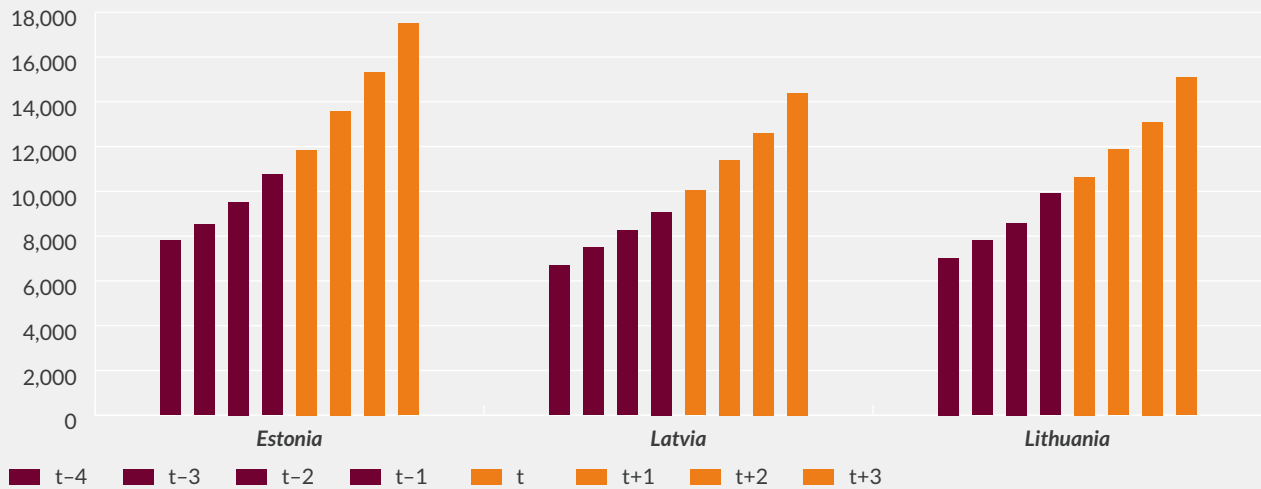
Lastly, Figure 15 shows the trends in GDP per capita in the Balkan EU countries, where the story was somewhat different. Beginning in 2009 (i.e. the third year after EU accession), GDP per capita in these countries started stagnating as a result of the Great Recession and the subsequent European debt crisis. However, one can observe that GDP per capita grew substantially in the Balkan EU countries in the first two years after

FIGURE 13 Real GDP per capita in terms of purchasing power standards for the Visegrad countries, pre-accession and post-accession (in €, 2020 prices)



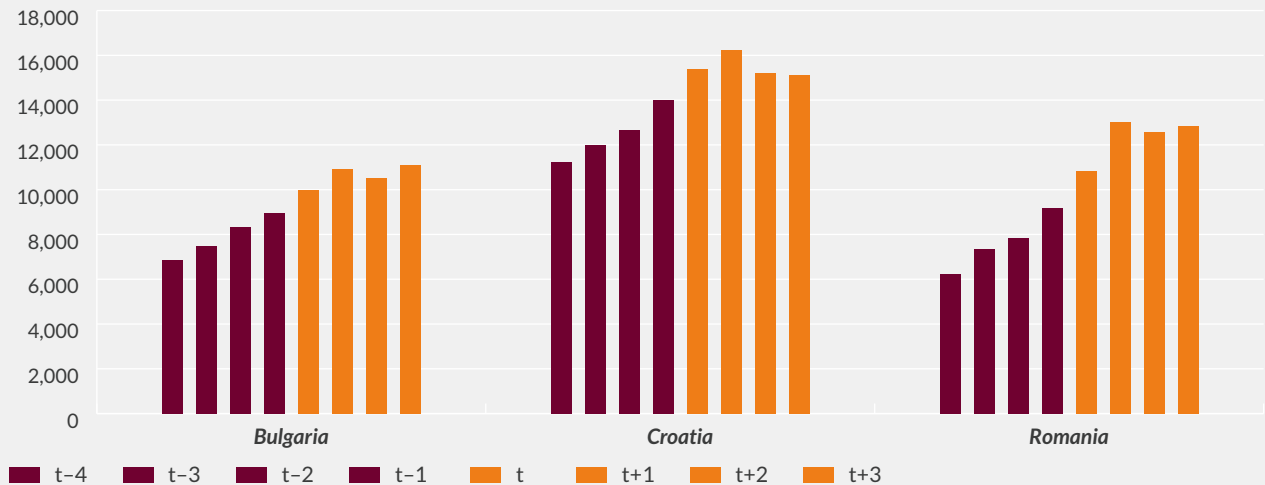
Note: "t" denotes the year of the EU accession, "t+1" the first year afterwards, and so on. Concretely, for Visegrad countries, "t" is 2004.
 Source: wiiw Annual Database | © Bertelsmann Stiftung and wiiw.

FIGURE 14 Real GDP per capita in terms of purchasing power standards for the Baltic countries, pre-accession and post-accession (in €, 2020 prices)



Note: "t" denotes the year of the EU accession, "t+1" the first year afterwards, and so on. Concretely, for Baltic countries, "t" is 2004.
 Source: wiiw Annual Database | © Bertelsmann Stiftung and wiiw.

FIGURE 15 Real GDP per capita in purchasing power standards for the Balkan EU countries, pre-accession and post-accession (in €, 2020 prices)



Note: "t" denotes the year of the EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2007 for Bulgaria and Romania, and 2013 for Croatia.
 Source: wiiw Annual Database | © Bertelsmann Stiftung and wiiw.

EU accession. Concretely, it increased by 22 percent in just two years (2007 vs. 2009) in Bulgaria, by 16 percent in Croatia, and by an astonishing 42 percent in Romania.

Thus, one can undoubtedly conclude that the post-EU-accession years were marked by very strong GDP growth in all EU-CEE countries. In what follows, we investigate why this was the case by applying an econometric analysis. Specifically, we conduct an econometric analysis of the determinants of income development in EU-CEE in order to assess whether EU accession has led to higher incomes. In formal terms, this is an estimation of Equation 2 (Eq. 2) in Appendix IX.1. The results are presented below in Table 6.

Here, it can be seen that while the coefficient on the EU membership variable is statistically insignificant, the coefficient on the EU transfers is statistically significant and positive. This implies that if a country receives a higher amount of EU budget transfers, its GDP will increase. The size of the coefficient is such that a 1 percent increase

in EU transfers leads to a 0.14 percent increase in GDP. Or, for example, if annual EU transfers double from 1 percent to 2 percent of national income, GDP will increase by 14 percent overall. This is a very big effect.

Other factors that are found to affect income in EU-CEE are government spending, FDI, political stability and the exchange rate. The effect of government spending is such that a 1 percent increase leads to a 2.3 percent increase in income, which is a sizeable effect. The effect of FDI is such that when FDI stock grows by 1 percent, GDP grows by 0.7 percent. The effect of political stability is such that when the value of the index increases by one point (a big increase), income increases by 34 percent, which is a lot. Lastly, the effect of the exchange rate is such that if the currency depreciates by 10 percent relative to the USD, GDP will rise by 1.2 percent.

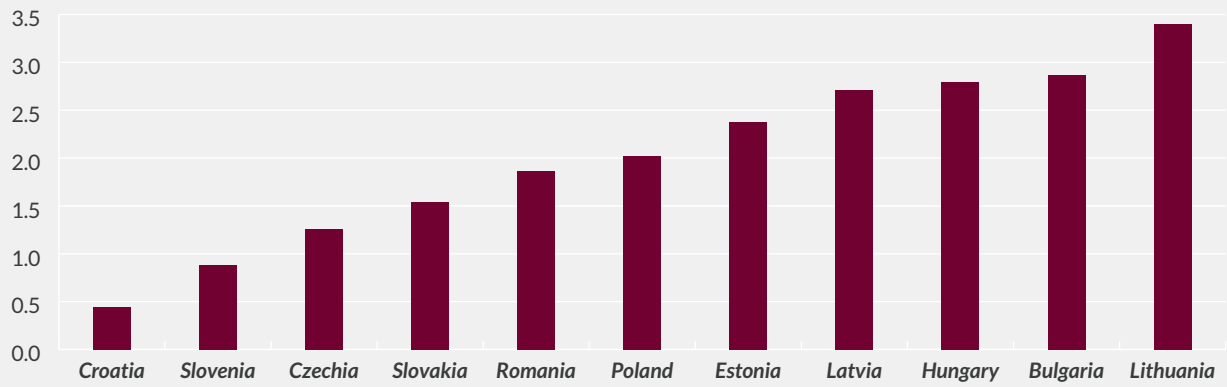
Hence, the econometric analysis supports the thesis that the strong income growth seen in the EU-CEE countries after EU accession was due to

TABLE 6 Determinants of income in EU-CEE	
Dependent variable: Real GDP of the country	
EU membership	-0.001 (0.138)
EU transfers	0.14** (0.052)
Euro	-0.153 (0.14)
Interest rate	0.025 (0.066)
CPI inflation	-0.027 (0.050)
Government spending	2.35*** (0.61)
Bank loans to firms	-0.28 (0.17)
Education	-0.18 (0.46)
FDI stocks	0.71*** (0.085)
Political stability	0.34** (0.13)
Exchange rate	-0.12** (0.038)
Constant	8.12** (2.64)
Observations	145
Pseudo R-squared	
AIC	-20.2
Explanatory variables are shown in the first column, coefficients and standard errors in the second. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively © Bertelsmann Stiftung and wiw.	

EU accession and, more precisely, to strong EU budget transfers. As can be seen in Figure 16, these averaged 2 percent of GDP per year for all EU-CEE countries, although they were around 3 percent of GDP for some of the countries (e.g. Bulgaria, Hungary and Lithuania). In addition, as can be seen in Figure 17, there was an upward trend in the EU transfers. While they averaged around 1 percent of EU-CEE GDP in the years before 2009, they almost always exceeded 2 percent of GDP in the subsequent years.

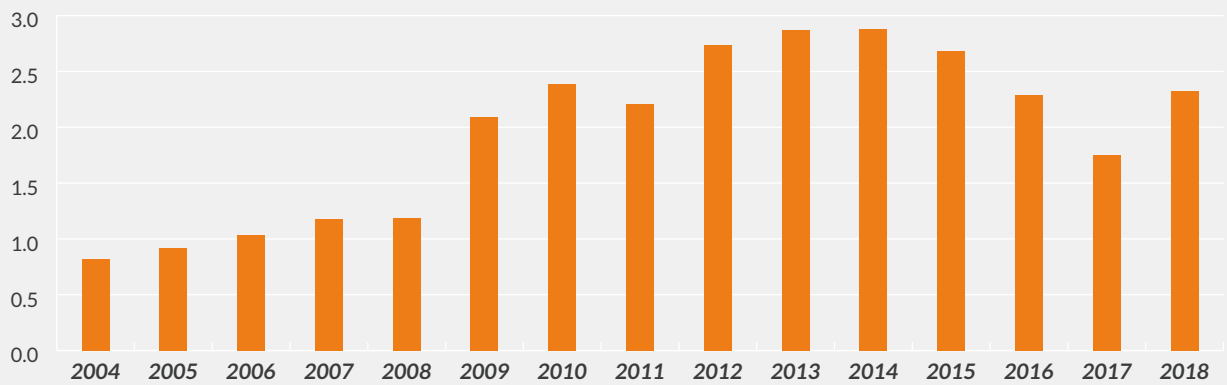
Some of the other factors that have been found to be significant determinants of income growth might also be related to EU accession, such as FDI inflows, political stability and government spending.

FIGURE 16 EU budget transfers to EU-CEE countries between 2004 and 2018, averages per country (in % of annual GDP)



Source: European Commission | © Bertelsmann Stiftung and wiw.

FIGURE 17 EU budget transfers to all EU-CEE countries between 2004 and 2018, averages per year (in % of EU-CEE GDP)



Source: European Commission | © Bertelsmann Stiftung and wiw.

VII. The impact of EU accession on FDI inflows into EU-CEE

Key messages:

- *The dynamics of the FDI inflows into EU-CEE after EU accession have not been uniform across all countries.*
- *While FDI strengthened after EU accession in the Baltic countries, Croatia and Poland, they moderated in the other countries. In any case, FDI remained robust in all countries, averaging 6–7 percent of GDP.*
- *The lack of a strong across-the-board increase in FDI after EU accession may be explained by sizeable increases in the pre-accession years.*
- *We find that higher FDI inflows cannot be directly attributed to EU accession. However, they can be explained by higher income levels, which were a result of EU accession. This indicates at least an indirect causal relationship between EU membership and the level of FDI.*

Next, we explore what has happened to FDI in EU-CEE after EU accession – or, more specifically, whether it increased, to what extent and why. We start by looking at the FDI inflows into the three groups of countries, which are presented in Figures 18–20.

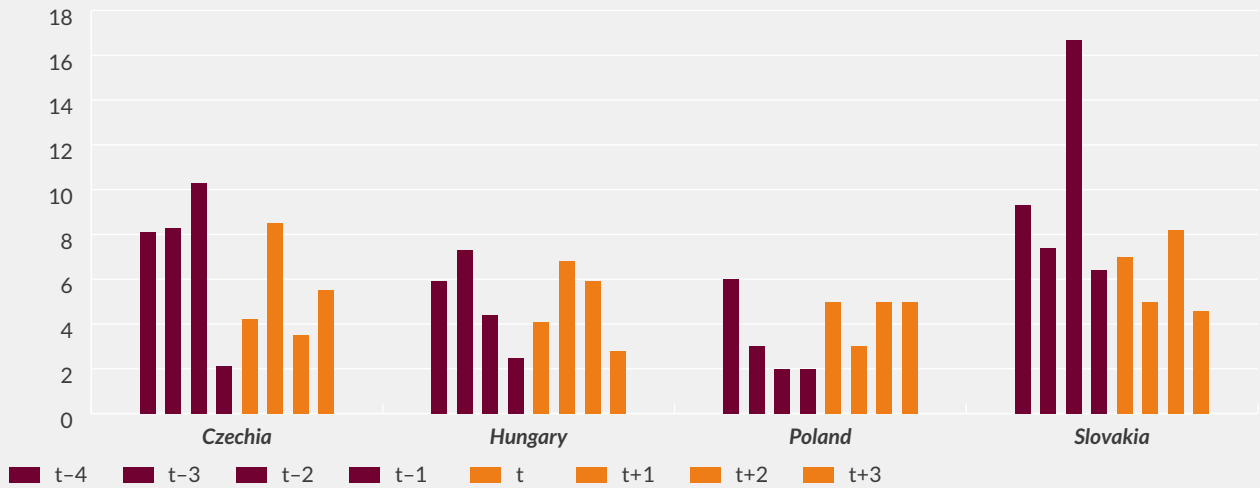
As Figure 18 shows, rather than increasing after EU accession, FDI inflows into the

Visegrad countries actually saw a slight decline. Nevertheless, this was because FDI inflows before the accession were very strong, averaging 6.3 percent and in some cases even exceeding 15 percent of GDP per year. What's more, despite the slight decline following EU accession, FDI inflows still remained very robust, averaging 5.2 percent of GDP. One can also note that Poland is slightly different from the other countries, as FDI inflows there actually improved a bit after EU accession.

Turning to the Baltic countries, the story is somewhat different. Here, as can be seen in Figure 19, FDI inflows did strengthen after EU accession. While they averaged 4.5 percent of GDP in the four years before accession, they averaged 7.7 percent in the four years after accession. The increase was seen in all three countries, but it was especially pronounced in Estonia, where FDI reached an amazing 20 percent of GDP in 2005.

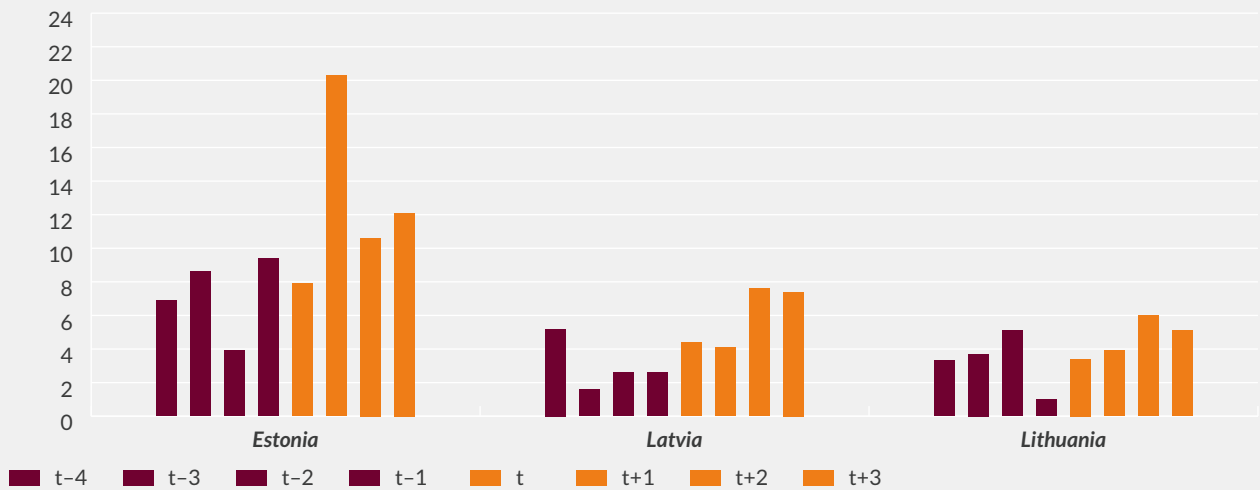
Finally, Figure 20 displays the FDI dynamics before and after EU accession for the Balkan EU countries. Similarly to the Visegrad countries, FDI here slowed down after accession. But, once again, this was mainly because they were already very strong before accession. Concretely, while the inflows averaged 8.8 percent of GDP in the four years prior to accession, the average was 7.9 percent of GDP in the four years after accession. Thus, despite this moderation, FDI inflows still remained very strong. Croatia was slightly different from the other two countries in that FDI there actually strengthened after EU accession.

FIGURE 18 FDI total inflows for the Visegrad countries, pre-accession and post-accession (as % of GDP)



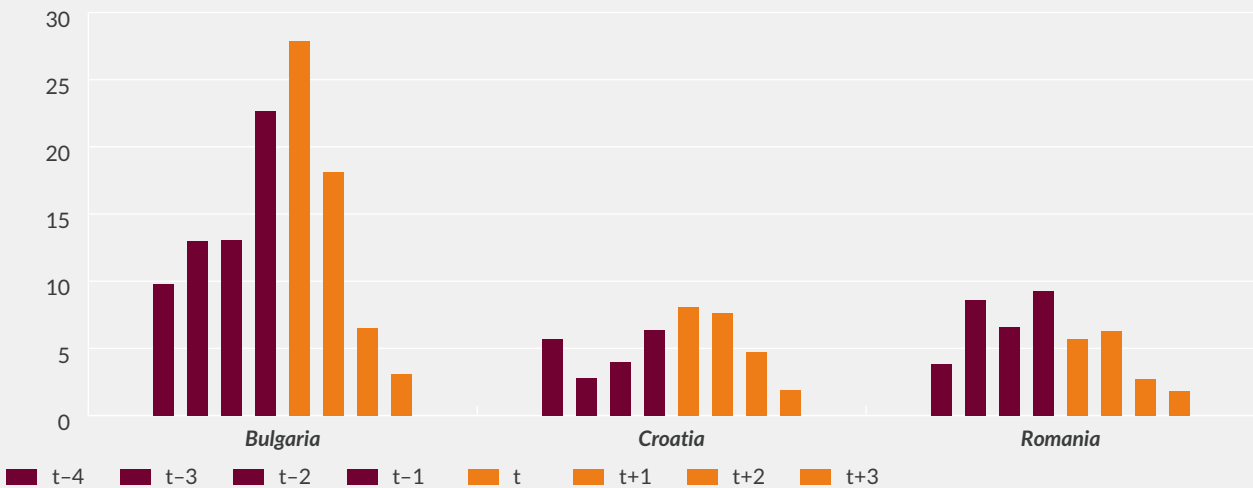
Note: "t" denotes the year of the EU accession, "t+1" the first year afterwards, and so on. Concretely, for Visegrad countries, "t" is 2004.
 Source: wiiw Annual Database | © Bertelsmann Stiftung and wiiw.

FIGURE 19 FDI total inflows for the Baltic countries, pre-accession and post-accession (as % of GDP)



Note: "t" denotes the year of the EU accession, "t+1" the first year afterwards, and so on. Concretely, for Baltic countries, "t" is 2004.
 Source: wiiw Annual Database | © Bertelsmann Stiftung and wiiw.

FIGURE 20 FDI total inflows for the Balkan EU countries, pre-accession and post-accession (as % of GDP)



Note: "t" denotes the year of the EU accession, "t+1" the first year afterwards, and so on. Concretely, "t" is 2007 for Bulgaria and Romania, and 2013 for Croatia.
 Source: wiiw Annual Database | © Bertelsmann Stiftung and wiiw.

Thus, the dynamics of the FDI inflows into EU-CEE before and after EU accession were more complex, as FDI strengthened in some countries and moderated in others. But, in general, they were already very strong before accession and remained strong after it.

To see how accession itself affected FDI, we turn to an econometric analysis of the determinants of FDI in EU-CEE by estimating Equation 3 (Eq. 3) in Appendix IX.1. The results are presented in Table 7. Perhaps surprisingly, one can see that neither EU membership nor EU transfers were significant, which implies that EU accession has not had a direct positive influence on FDI into EU-CEE. However, one can also observe that the GDP of the respective economy is significant and positive, which implies that higher GDP leads to higher FDI. As we saw in the previous chapter, EU accession has had a positive impact on GDP in the EU-CEE countries, which implies that EU accession has affected FDI indirectly, through higher income.

TABLE 7 Determinants of FDI into EU-CEE

Dependent variable: FDI stocks into the country	
EU membership	0.15 (0.13)
EU transfers	-0.01 (0.09)
Euro	0.14 (0.10)
GDP of economy	0.85*** (0.12)
Exchange rate	0.08*** (0.02)
GDP per capita	0.03 (0.48)
Political stability	-0.009 (0.24)
Constant	-11.7 (4.64)
Observations	177
Pseudo R-squared	
AIC	598.4

Explanatory variables are shown in the first column, coefficients and standard errors in the second. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively | © Bertelsmann Stiftung and wiiw.

VIII. Implications for the Western Balkans

This study set out with the aim of examining economic integration within EU-CEE not only for its own sake, but primarily as an example for the Western Balkan economies. While acknowledging the partly different historical, institutional and political contexts of these countries, we wanted to understand better the reasons for the relative success of regional integration in EU-CEE and the extent to which these successes could be replicated in the Western Balkans. We started out with this assumption: Since EU accession for most or all Western Balkan countries is still some years away, the immediate goal should be to replicate the economic aspects of EU-CEE's success outside of the EU. Nevertheless, we stress that this should be an interim step, and that full accession of the Western Balkans to the EU must remain the ultimate goal.

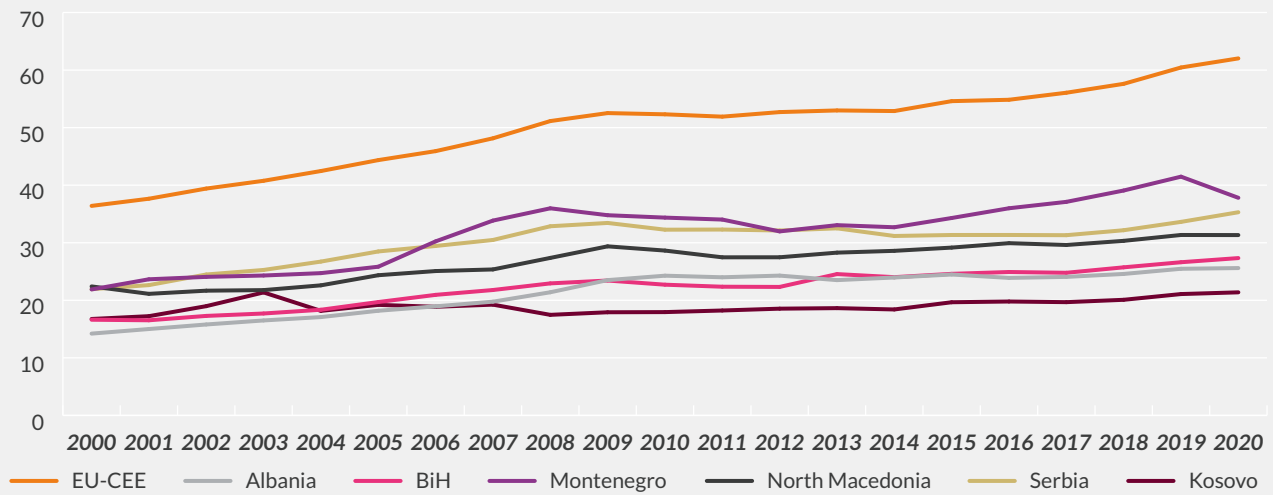
VIII.1 The impact of the EU accession process on regional integration and development to date

As outlined in Chapter IV, since the 1990s, the Western Balkans have faced a somewhat different EU accession process to that of other aspiring members of the bloc, such as the Visegrad countries. Following the wars of the 1990s, the EU stressed that successful regional cooperation would be an intrinsic part of the Western Balkans' EU accession. This reflects the following assumptions in Brussels:

1. Intensifying economic contact between the countries of the region would lead to better economic outcomes.
2. These better economic outcomes would deliver a convergence of economic interests.
3. As the countries became richer and improved regional cooperation, this would lead to a greater readiness to resolve constitutional and territorial disputes.

Economics were only part of this regional-cooperation approach, which involved a multitude of initiatives, the most well-known and successful of which was the Central European Free Trade Agreement (CEFTA). We established previously that the headline impact of these initiatives has been quite notable, with CEFTA increasing intraregional trade by over 35 percent (Grieverson et al. 2020a). However, the broader impact of the regional cooperation strategy has been highly disappointing (Grieverson et al. 2020b). Increased intraregional trade via CEFTA has done little to solve the region's economic-development problem. All else being equal, poorer countries should grow faster than richer ones, yet the convergence performance of most Western Balkan countries has been weaker than that of EU-CEE countries over the past two decades (Figure 21). Meanwhile, the broader goal of using economic integration to help resolve territorial and constitutional disputes has not been achieved. Over a quarter of a century since the Dayton Agreement and more than 20 years since the end of the war in Kosovo, the

FIGURE 21 GDP per capita in terms of PPS; Germany = 100



Source: National sources, wiiw | © Bertelsmann Stiftung and wiiw.

most intractable issues – namely, those between Serbia and Kosovo as well as within Bosnia and Herzegovina – seem as far away from being resolved as ever.

Our conclusion in our previous study was that these efforts did not achieve the hoped-for outcomes because the prerequisites for successful regional cooperation did not and do not exist in the Western Balkans. We explained this view in four ways.

First, the region is very small economically, with a GDP roughly equivalent to Slovakia’s or 1 percent of the pre-Brexit EU’s GDP. That means that the potential upside from even very successful regional economic integration was small and, therefore, that the incentives for politicians to invest serious political capital in these efforts was close to zero.

This links immediately to the second prerequisite that was lacking: Politicians in the region were never really interested in improving regional cooperation; instead, they were always more interested in EU accession and EU integration.

While this can be traced back to the conflicts from recent history, the final outcome is that the political elites of the Western Balkans have never accepted full “ownership” of the idea of regional integration. This is why politicians in the region have often shown themselves unwilling to commit the political capital that would be required for regional integration to truly work properly.

Third, successful economic integration requires strong and functioning institutions. These do not exist in the Western Balkans at this time. Although this was also not the case 20 years ago in much of what is now EU-CEE, the formal EU integration process that these countries followed was a powerful driver of institutional upgrading, which in turn helped to advance integration after 2004. Without somewhat functioning institutions, it is very difficult to deepen regional cooperation. The same holds true for political instability, which resurfaces from time to time in various countries in the region.

Fourth, the region’s long-standing weakness in infrastructure connectivity is still very much a reality. For the 2018–2022 period, the EBRD

has estimated infrastructure investment needs of up to 12 percent of GDP per year for Western Balkan countries, or well above the levels of even the poorest EU member states. A lack of infrastructure, particularly between countries, is a serious hindrance to deepening economic integration.

Despite these disappointing results and the unmet prerequisites for successful regional economic cooperation, there are few indications that the EU is going to fundamentally change its approach to economically integrating and developing the Western Balkans. Many current initiatives continue to go in this direction, including the Connectivity Agenda, the Berlin Process and the Multi-annual Action Plan for a Regional Economic Area (MAP REA). The new EU Economic and Investment Plan for the region, announced in late 2020, also places great importance on regional connectivity. Although all these initiatives are positive, none will represent a game-changer for the region's underlying economic-development problems.

Furthermore, we believe that the EU's current Economic and Investment Plan for the Western Balkans is insufficient in that it represents merely a holding strategy rather than a decisive step forward. It amounts to only €9 billion for all six economies over a seven-year period, which comes down to just around 1 percent of GDP per year. This is only slightly higher than the previous IPA packages. Whereas the IPA I budget for the six Western Balkan countries amounted to €5.3 billion, the IPA II budget amounted to €6.9 billion, which was also around 1 percent of GDP. Furthermore, the amount might actually turn out to be even smaller, as it is subject to the adoption of the Multiannual Financial Framework 2021–2027. Moreover, as these funds will be disbursed through IPA III, the ultimately disbursed amount is likely to be even smaller, as the use of IPA funds in these countries is always below 100 percent.

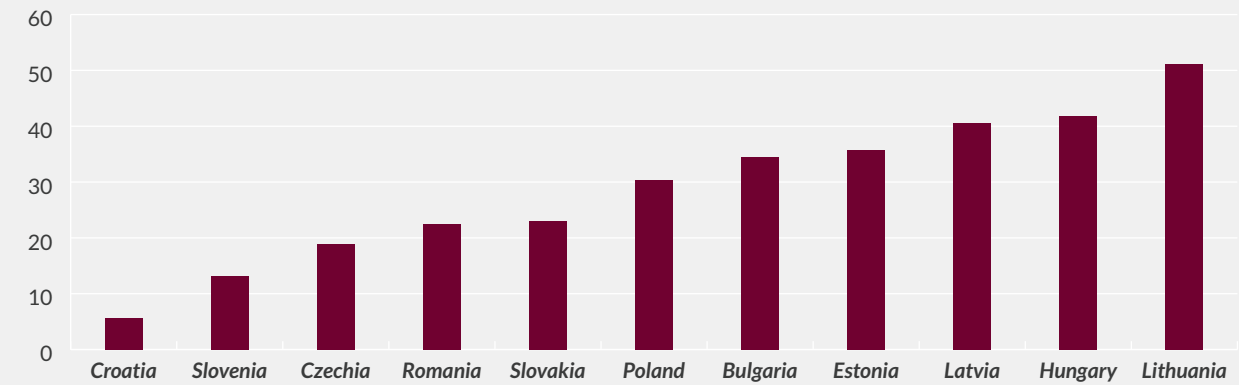
Therefore, a change in the EU's strategy for the Western Balkans is needed. While the political aspects of this remain largely outside the scope of this study, our intention has been to identify realistic economic options for avoiding a mostly futile "more of the same" approach. In the search for a new strategy, we believe that the successful economic-integration experience of the 2004 EU joiners in particular can serve as a very useful reference point.

VIII.2 Applying the lessons from EU-CEE to the Western Balkans

As we have found in the previous chapters of this study, EU accession brought about a sizeable increase in economic integration within EU-CEE. Even though the then-EU-15 was a much bigger and richer bloc of countries, intra-EU-CEE trade actually increased more quickly beginning in 2004 than trade between EU-CEE and the EU-15. We have established that this was mainly due to the rapid increase in income in EU-CEE countries, which was primarily driven by EU budget transfers. On average, the countries received transfers roughly equivalent to one-third of their GDP over the entire period, with some of them receiving even more than one-half (Figure 22). This led to a significant improvement in the living standards in these countries as well as to a much greater demand for and supply of goods and services, which in turn stimulated increased regional integration.

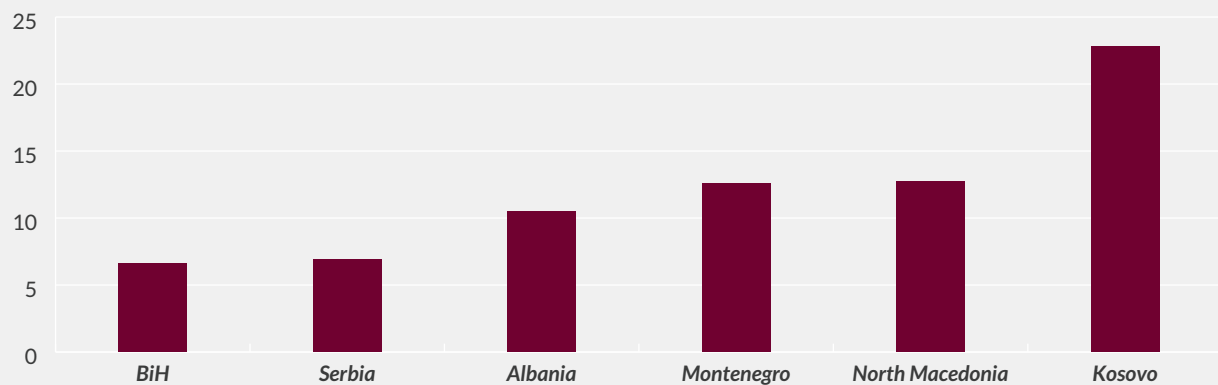
The Western Balkans has missed out financially over the last couple of decades due to the region's rather peripheral and delayed role in the EU integration process in CEE. Two indicators bear this out particularly strongly. First, the large EU budget transfers referenced in the previous paragraph have made a significant positive contribution to economic development in the EU-CEE countries. One of the major beneficiaries of this has been public investment, with EU transfers

FIGURE 22 Total EU budget transfers in EU-CEE countries between 2004 and 2018 (as % of GDP)



Source: European Commission | © Bertelsmann Stiftung and wiw.

FIGURE 23 Total IPA funds in Western Balkan economies between 2007 and 2018 (as % of GDP)



Source: European Commission | © Bertelsmann Stiftung and wiw.

accounting for a large share of the total across EU-CEE. Via IPA funding, the Western Balkans have only had access to a very small share of these funds; in fact, the total amount received for the 2007–2018 period was just 12 percent of GDP (as an average for all the countries), which is nearly three times less than what the EU-CEE countries have received. The average is even smaller if Kosovo is excluded, as it has received more than twice as much as the other countries (Figure 23). The results are clear: EBRD data show annual investment needs equivalent

to over 10 percent of GDP in some parts of the Western Balkans, which is much higher than in any comparable EU-CEE country.

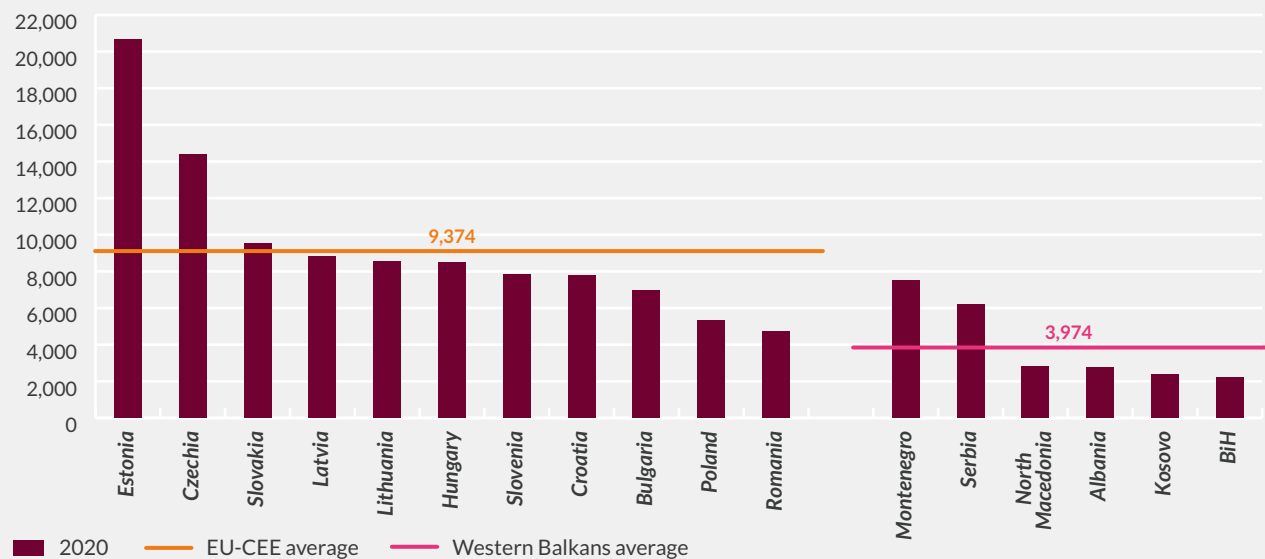
The second indication is the inward FDI stock. Although we could not establish this econometrically (see Chapter V), concrete EU accession prospects and eventual membership very likely gave foreign investors much greater confidence to enter EU-CEE countries beginning in the late 1990s. Over the past two decades, FDI has constituted a central pillar of growth across most

of what is now EU-CEE and has been a dominant driver of technology transfer and productivity upgrading. Although Western Balkan countries have been successful at attracting high levels of inward FDI relative to their GDP in recent years, to a large extent this simply reflects the low level of economic development in the region. For example, the inward FDI stock per capita in Estonia is almost €21,000, compared with €2,000 in Bosnia and Herzegovina (Figure 24). On average, the level for EU-CEE is over €9,000, compared with less than €4,000 into the Western Balkans. Furthermore, most of the FDI in the Western Balkans has gone into labour-intensive activities and been driven by cheap labour, so the technology transfer part is missing, which is clearly different than the case for EU-CEE.

The main takeaway from this is that the EU should seek to replicate the positive income shock of the 2004 accession round in the Western Balkans. This would have the greatest potential to increase economic integration

and development in the region. Based on our results in this study, the most feasible way to do this would be to include the Western Balkan countries fully in the EU budget. Doing so would barely register from the EU side given the low GDP levels of the Western Balkan countries, but it would make a major difference to the Western Balkan countries. What's more, it would also be a clear signal to foreign investors that the EU is committed to the region. Even before 2004, the clear Euro-Atlantic integration path of countries like those in the Visegrad sub-region gave foreign investors confidence about their reform paths and political stability. The advantage of this for the Western Balkans could be particularly significant now, with FDI patterns potentially set to undergo major changes in the wake of the COVID-19 pandemic as well as with possible moves towards near-shoring (see Jovanović et al. 2021). Increased confidence among foreign investors would also help to drive down domestic interest rates, which in turn would increase much-needed domestic investment.

FIGURE 24 Inward FDI stock per capita (in €)



Source: National sources, wiiw | © Bertelsmann Stiftung and wiiw.

Of course, money cannot solve every problem, and the lack of money is certainly not the only issue in the Western Balkans. The region needs to improve its governance standards and quality of institutions. It needs local territorial and constitutional disputes to be solved. It needs to tackle organised crime. It needs to create more meritocratic societies in which young, talented people believe they can succeed without connections. It needs to reduce the pronounced social inequalities and disparities that undermine social cohesion and trust. It needs support for industrial development, improvement in education systems, and innovation. None of this is directly about money, and all of this needs strong support and oversight from the EU.

Nevertheless, all of this will be much harder with a restrictive economic model and a lack of strong financial support from outside. Countries from EU-CEE, especially from the Visegrad region, underwent their EU accession processes at a time when the global economy was booming. They received large-scale FDI inflows into major projects and consistently large amounts of EU funds. Although many criticise this model of development and there are signs that it is reaching its limits (Grievesson et al. 2021), it is immeasurably better than what has been and currently is on offer to the Western Balkans. Without more of a positive demand shock for the Western Balkans and better access to foreign capital – which is something the EU could very comfortably deliver – making progress on governance and structural reforms will be much harder.

REFERENCES

- Grievesson, Richard, Mario Holzner and Goran Vukšić (2020a). “Regional Economic Cooperation in the Western Balkans: The Role of Stabilization and Association Agreements, Bilateral Investment Treaties and Free Trade Agreements in Regional Investment and Trade Flows.” *Eastern European Economics* (59) 1: 3–24.
- Grievesson, Richard, Stefani Weiss, Mario Holzner, Goran Vukšić, Vladimir Gligorov, David Pichler, Isilda Mara and Pellumb Collaku (2020b). “Pushing on a String? An evaluation of regional economic cooperation in the Western Balkans.” Gütersloh: Bertelsmann Stiftung.
- Grievesson, Richard, Alexandra Bykova, Doris Hanzl-Weiss, Gabor Hunya, Niko Korpar, Leon Podkaminer, Robert Steher and Roman Stoellinger (2021). “A New Growth Model in EU-CEE: Avoiding the Specialisation Trap and Embracing Megatrends.” Friedrich Ebert Stiftung.
- Jovanović, Branimir, Mahdi Ghodsi, Olga van Zijverden, Sophia Kluge, Martin Gaber, Ravik Mima, Belma Hasić, Ognjenka Lalović, Muela Ibrahim, Antoaneta Manova Stavreska, Sanja Nikolova, Balša Čulafić, Jelena Vasić and Marko Mandić (2021). “Getting Stronger After COVID-19: Nearshoring Potential in the Western Balkans.” wiiw Research Report No. 453 (May 2021). Vienna: The Vienna Institute for International Economic Studies.

IX. Appendices

IX.1 The econometric approach

The main research question that we want to assess with the econometric analysis is:

Has EU accession enhanced regional economic integration in EU-CEE?

Related to it, we want to assess three hypotheses for the possible effect of EU accession on regional economic integration:

Income Hypothesis: EU accession will lead to an increase in incomes in the region, which will create positive demand and supply shocks, which in turn will lead to greater intraregional trade and investment.

Foreign Firms Hypothesis: EU accession will lead foreign companies to enter the region and then cooperate among themselves, which will then result in greater intraregional trade and investment.

Previous Linkages Hypothesis: EU accession will create an opportunity for broken trade and investment linkages to be re-established or for existing linkages to flourish, which will then increase intraregional trade and investment.

To investigate the research question and the hypotheses, we apply a model that expresses regional economic integration as a function of its main determinants:

1. **Whether the country is a member of the EU or not.** This variable captures the effects of EU membership on regional economic integration. It is defined in such a way that it has a value of 0 before joining the EU and a value of 1 afterwards (i.e. for Visegrad and Baltic countries, zero before 2004; for Bulgaria and Romania, zero before 2007; and for Croatia, zero before 2013).
2. **The stock of FDI already in the country and the respective industry.** Included in order to test the foreign firms hypothesis (i.e. that EU accession leads to an increased presence of foreign companies, which in turn leads to greater intraregional trade and investment).
3. **Regional income per capita.** Included to test the income hypothesis (i.e. that EU accession will lead to higher incomes in the region, which in turn will enhance regional economic integration). For a country from the Visegrad region, this is the income of the Visegrad region; for a country from the Baltic region, this is the income of the Baltic region; and for a country from the Balkan EU group, this is the combined income of the three countries.
4. **Initial conditions.** Included to test the previous linkages hypothesis (i.e. that EU accession opens up space for broken trade and investment linkages to be re-established or for existing linkages to prosper, which in turn leads to greater intraregional integration). The initial conditions are

defined as the outcome of interest (i.e. one of the three indicators for regional economic integration) in the year 2000, which is the first year for which we have data on regional economic integration.

5. **EU transfers.** Defined as the transfers from the EU budget for the respective EU-CEE country on a net basis as a percentage of the country's gross national income (GNI). Higher transfers from the EU budget are likely to lead to improved transport infrastructure, which in turn stimulates greater trade and investment as well as enhanced regional integration.
6. **Whether the country has adopted the euro as its currency.** Included to capture the potential positive effects of the common currency on trade and investment. Defined as 0 when a country does not have the euro as its national currency and as 1 when the country does.
7. **Size of economy.** Defined as the total real GDP of each of the EU-CEE countries (in constant prices). Bigger economies usually have less openness (i.e. less trade and FDI as a percentage of their GDP) owing to their higher degree of self-sufficiency, which in turn may imply that they will also have less regional integration.
8. **The nominal exchange rate of the country relative to the USD.** The exchange rate determines the relative price of domestic and foreign products and may thus affect trade and investment.
9. **Labour costs.** Defined as the average wage in the country. Higher labour costs may lead to lower trade and investment due to higher prices. They may also lead to higher trade and investment if they are a proxy for the quality of the products and services.

10. **Labour productivity.** Defined as output per worker. Greater labour productivity may lead to greater trade and investment and, hence, to greater regional integration. It may also lead to less integration if the country focuses on exporting to and investing in other countries rather than its own region.

We use three indicators of regional economic integration:

1. **Regional integration in terms of exports of goods** – intraregional exports of goods as a share of the total exports of goods of a country.
2. **Regional integration in terms of exports of services** – intraregional exports of services as a share of the total exports of services of a country.
3. **Regional integration in terms of FDI** – intraregional FDI as a share of the total FDI stocks of a country.

Integration in terms of trade (both in goods and services) is measured on an industry level, which implies that different industries in the same country will have varying levels of integration. Integration in terms of FDI is measured at the country level.

In technical terms, we estimate the following model:

$$\text{Regional economic integration} = f(\text{EU, FDI, regional income, initial conditions, EU transfers, euro, size of economy, exchange rate, labour costs, productivity}) \quad (\text{Eq. 1})$$

To assess the main research question, we examine the coefficient on the EU variable in the model from Eq. 1. If it is positive and statistically significant, we view that as evidence that EU accession has enhanced regional economic cooperation. To assess the previous linkages

hypothesis, we observe the coefficient on the variable for the initial conditions in Eq. 1. If it is statistically significant, we interpret this as evidence that initial conditions matter for integration. If it is negative (and significant), we view this as evidence that the greater integration is due to the re-establishment of broken trade and investment linkages. If it is positive (and significant), this is viewed as evidence that the greater integration is due to the expansion of the already strong linkages.

To assess the income and foreign firms hypothesis, we follow a two-step approach. In the first step, we look at the coefficients of regional income and FDI in Eq. 1. If they are statistically significant and positive, we take this as evidence that higher income and FDI lead to greater regional economic integration. Then, as a second step, we assess whether EU accession leads to higher income and FDI by estimating a regression in which they are a function of EU accession as well as other determinants:

$$\text{Income} = f(\text{EU}, \text{EU transfers}, \text{euro}, \text{interest rate}, \text{inflation}, \text{government expenditure}, \text{loans}, \text{education}, \text{FDI}, \text{political stability}, \text{exchange rate}) \quad (\text{Eq. 2})$$

$$\text{FDI} = f(\text{EU}, \text{EU transfers}, \text{euro}, \text{GDP per capita}, \text{size of economy}, \text{political stability}, \text{exchange rate}) \quad (\text{Eq. 3})$$

If the EU or EU transfers variables turn out to be significant and positive, we interpret this as being evidence that EU accession leads to higher FDI and income.

IX.2 Additional econometric results

TABLE A1 Econometric results for nominal exports of goods to the region

Regional export of goods	
EU membership	0.69*** (0.25)
Initial regional integration	0.0045*** (0.00045)
FDI stocks	0.060*** (0.022)
GDP per capita of region	2.12*** (0.37)
EU transfers	0.082 (0.069)
Euro	0.38** (0.17)
GDP of economy	0.24*** (0.083)
Exchange rate	-0.18 (0.11)
Labour costs	0.19** (0.094)
Labour productivity	0.036 (0.031)
Constant	-25.0*** (4.48)
Observations	1,972
Pseudo R-squared	0.809
AIC	252,616.8
Standard errors in parentheses. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively © Bertelsmann Stiftung and wiiw.	

Regional exports of services	
EU membership	0.84*** (0.21)
Initial regional integration	0.027*** (0.0037)
FDI stocks	0.034 (0.053)
GDP per capita of region	2.36*** (0.76)
EU transfers	-0.013 (0.12)
Euro	0.57*** (0.21)
GDP of economy	0.42*** (0.16)
Exchange rate	-0.21 (0.29)
Labour costs	0.35 (0.26)
Labour productivity	-0.15 (0.13)
Constant	-32.4*** (8.39)
Observations	1,405
Pseudo R-squared	0.659
AIC	64,081.8
Standard errors in parentheses. *, ** and *** denote statistical significance at 10 percent, 5 percent and 1 percent, respectively © Bertelsmann Stiftung and wiw.	

IX.3 The importance of initial conditions in industry

It is also interesting to see which industries had bigger initial integration and how this subsequently impacts the degree of integration. In total, 23 industries were included in the analysis, 13 from the goods sector and 10 from the services sector. While Table A3 presents

the industries from the goods sector that were analysed, Table A4 presents those from the service sector.

NACE code	NACE description
A	Agriculture, forestry and fishing
B	Mining and quarrying
C10-C12	Manufacture of food products; manufacture of beverages; manufacture of tobacco products
C13-C15	Manufacture of textiles; manufacture of wearing apparel; manufacture of leather and related products
C16-C18	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials; manufacture of paper and paper products; printing and reproduction of recorded media
C19	Manufacture of coke and refined petroleum products
C20-C21	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations
C22-C23	Manufacture of rubber and plastic products; manufacture of other non-metallic mineral products
C24-C25	Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment
C26-C27	Manufacture of computer, electronic and optical products; manufacture of electrical equipment
C28	Manufacture of machinery and equipment n.e.c.
C29-C30	Manufacture of motor vehicles, trailers and semi-trailers; manufacture of other transport equipment
C31-C33	Manufacture of furniture; other manufacturing; repair and installation of machinery and equipment

TABLE A4 **Industries from the services sector included in the analysis**

NACE code	NACE description
D-E	Electricity, gas, steam and air conditioning supply; water supply; sewerage; waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transporting and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M-N	Professional, scientific and technical activities; administrative and support service activities
O-U	Public administration and defence; compulsory social security; education; human health and social work activities; arts, entertainment and recreation; other services activities; activities of households as employers; undifferentiated goods- and services-producing activities of households for own use; activities of extraterritorial organisations and bodies

The industries from the goods sector with the highest degrees of initial integration (i.e. integration in 2000) are shown in Table A5 alongside their level of integration in 2018. The top 20 industries are shown. Several things can be noticed here. The first is that industries from Slovakia dominate among the top 20 industries, followed by those of Czechia and then by those of the Baltics. Secondly, certain industries seem to be present more often than others, such as manufacture of coke and petroleum product, manufacture of food and beverages, and manufacture of chemicals and pharmaceuticals. Finally, the positive relationship between the initial integration and the subsequent integration is clearly evident from the table. In other words, the industries that had the greatest degrees of integration in 2000 continued to be the most integrated ones in 2018.

Country	NACE name	Regional integration in 2000	Regional integration in 2018
SK	Manufacture of coke and refined petroleum products	67%	64%
SK	Manufacture of food products; manufacture of beverages; manufacture of tobacco products	55%	57%
SK	Agriculture, forestry and fishing	46%	55%
SK	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations	43%	40%
CZ	Manufacture of food products; manufacture of beverages; manufacture of tobacco products	42%	37%
CZ	Mining and quarrying	39%	52%
LV	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations	37%	40%
SK	Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	37%	35%
SK	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials; manufacture of paper and paper products; printing and reproduction of recorded media	33%	31%
SK	Manufacture of rubber and plastic products; manufacture of other non-metallic mineral products	31%	26%
LT	Manufacture of coke and refined petroleum	28%	31%
LV	Manufacture of food products; manufacture of beverages; manufacture of tobacco products	27%	38%
CZ	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations	27%	28%
CZ	Manufacture of coke and refined petroleum products	27%	26%
EE	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations	27%	30%
RO	Manufacture of coke and refined petroleum products	26%	37%
LV	Manufacture of rubber and plastic products; manufacture of other non-metallic mineral products	25%	38%
EE	Manufacture of rubber and plastic products; manufacture of other non-metallic mineral products	21%	29%
EE	Manufacture of food products; manufacture of beverages; manufacture of tobacco products	20%	44%
CZ	Agriculture, forestry and fishing	19%	19%

Table A6 presents the 20 industries from the services sector with the biggest initial degrees of integration (i.e. integration in 2000). The first thing to note here is that the Baltic countries dominate now, although Slovakia is also present. The industries that dominate are accommodation and food service activities; electricity and related activities; and professional, scientific

and technical activities. One can also notice that the integration in terms of exports of services is clearly smaller than the integration in terms of exports of goods. While the highest value for the degree of integration in the case of services is 33 percent, the highest value is 67 percent in the case of the exports of goods.

Country	NACE name	Regional integration in 2000	Regional integration in 2018
LV	Accommodation and food service activities	20%	33%
LT	Electricity, gas, steam and air conditioning supply; water supply; sewerage; waste management and remediation activities	16%	9%
SV	Professional, scientific and technical activities; administrative and support service activities	16%	25%
LV	Real estate activities	13%	18%
LT	Accommodation and food service activities	13%	5%
SK	Information and communication	13%	21%
LT	Professional, scientific and technical activities; administrative and support service activities	11%	11%
EE	Electricity, gas, steam and air conditioning supply; water supply; sewerage; waste management and remediation activities	11%	23%
SK	Construction	10%	25%
LV	Information and communication	10%	18%
LV	Professional, scientific and technical activities; administrative and support service activities	10%	14%
SK	Real estate activities	9%	23%
EE	Professional, scientific and technical activities; administrative and support service activities	9%	13%
CZ	Wholesale and retail trade	8%	17%
SK	Public administration	8%	22%
SK	Accommodation and food service activities	7%	44%
SK	Electricity, gas, steam and air conditioning supply; water supply; sewerage; waste management and remediation activities	7%	27%
LV	Electricity, gas, steam and air conditioning supply; water supply; sewerage; waste management and remediation activities	7%	26%
LT	Real estate activities	7%	4%
SK	Wholesale and retail trade; repair of motor vehicles and motorcycles	6%	27%

X. Figures and tables

FIGURE 1 GDP per capita in purchasing power standards as a percentage of EU-27 GDP (in 2000 and 2020)	11
FIGURE 2 Results of the referenda on EU membership in CEE countries	16
FIGURE 3 Annual allocations of pre-accession financing (in millions of € and as % of GDP)	16
FIGURE 4 GDP per capita in 1995 and 2004 (in PPS, EU-27 in 2020)	17
FIGURE 5 Intraregional exports of goods for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (in millions of €)	20
FIGURE 6 Intraregional exports of goods for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (as % of total exports)	20
FIGURE 7 Scatter plot showing regional integration in trade in 2000 and 2018 for industries from the goods sector	21
FIGURE 8 Intraregional exports of services for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (in millions of USD)	24
FIGURE 9 Intraregional exports of services for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (as % of total exports)	24
FIGURE 10 Scatter plot showing regional integration in trade in 2000 and 2018 for industries from the services sector	25
FIGURE 11 Intraregional inward FDI stocks for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (in millions of €)	27
FIGURE 12 Intraregional inward FDI stocks for Visegrad, Baltic and Balkan EU countries, pre-accession and post-accession (as a % of total inward FDI stocks)	27
FIGURE 13 Real GDP per capita in terms of purchasing power standards for the Visegrad countries, pre-accession and post-accession (in €, 2020 prices)	30
FIGURE 14 Real GDP per capita in terms of purchasing power standards for the Baltic countries, pre-accession and post-accession (in €, 2020 prices)	30
FIGURE 15 Real GDP per capita in purchasing power standards for the Balkan EU countries, pre-accession and post-accession (in €, 2020 prices)	31
FIGURE 16 EU budget transfers to EU-CEE countries between 2004 and 2018, averages per country (in % of annual GDP)	33
FIGURE 17 EU budget transfers to all EU-CEE countries between 2004 and 2018, averages per year (in % of EU-CEE GDP)	33
FIGURE 18 FDI total inflows for the Visegrad countries, pre-accession and post-accession (as % of GDP)	35

FIGURE 19 FDI total inflows for the Baltic countries, pre-accession and post-accession (as % of GDP)	35
FIGURE 20 FDI total inflows for the Balkan EU countries, pre-accession and post-accession (as % of GDP)	36
FIGURE 21 GDP per capita in terms of PPS; Germany = 100	38
FIGURE 22 Total EU budget transfers in EU-CEE countries between 2004 and 2018 (as % of GDP)	40
FIGURE 23 Total IPA funds in Western Balkan economies between 2007 and 2018 (as % of GDP)	40
FIGURE 24 Inward FDI stock per capita (in €)	41
TABLE 1 Timeline of applications for EU membership and EU accession in CEE	14
TABLE 2 Timeline of applications for EU membership and waiting times for the Western Balkan countries	15
TABLE 3 Econometric results for regional integration in terms of exports of goods	22
TABLE 4 Econometric results for regional integration in terms of exports of services	26
TABLE 5 Econometric results for regional integration in terms of FDI	28
TABLE 6 Determinants of income in EU-CEE	32
TABLE 7 Determinants of FDI into EU-CEE	36
TABLE A1 Econometric results for nominal exports of goods to the region	45
TABLE A2 Econometric results for nominal exports of services to the region	46
TABLE A3 Industries from the goods sector included in the analysis	46
TABLE A4 Industries from the services sector included in the analysis	47
TABLE A5 Industries from the goods sector with highest initial integration	48
TABLE A6 Industries from the services sector with highest initial integration	49

Project Team

Bertelsmann Stiftung

Stefani Weiss, Senior Expert EU Governance,
Foreign and Security Policy, Program Europe's
Future, Brussels

The Vienna Institute for International Economic Studies (wiiw)

Branimir Jovanović, Economist (lead author)
Mahdi Ghodsi, Economist
Richard Grieveson, Deputy Director
Doris Hanzl-Weiss, Economist
Mario Holzner, Executive Director
Zuzana Zavorska, Economist

Publishing Information

© Bertelsmann Stiftung 2022

Bertelsmann Stiftung
Carl-Bertelsmann-Straße 256
33311 Gütersloh
Phone +49 5241 81-0
www.bertelsmann-stiftung.de

Responsible

Stefani Weiss

Editing

Josh Ward, Berlin

Design

Nicole Meyerholz, Bielefeld

Cover

stock.adobe.com | ii-graphics

Printing

Lensing Druck, Dortmund

Address | Contact

Bertelsmann Stiftung
Rond-Point Schuman 11, 4th floor
1040 Brussels | Belgium

Bertelsmann Stiftung
Carl-Bertelsmann-Straße 256
33311 Gütersloh | Germany

Stefani Weiss
Senior Expert EU Governance, Foreign and Security Policy
Program Europe's Future
Phone +32 2 256 75 98
stefani.weiss@bertelsmann-stiftung.de

The Vienna Institute for International Economic Studies
Rahlgasse 3
1060 Vienna | Austria

Richard Grieveson
Deputy Director
Phone +43 1 533 66 10-56
grieveson@wiiw.ac.at

Branimir Jovanović
Economist
Phone +43 66 56 56 29 314
jovanovic@wiiw.ac.at

www.bertelsmann-stiftung.de