



Keeping friends closer:

Why the EU should address new geoeconomic realities and get its neighbours back in the fold

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I. Abstract

Russia's invasion of Ukraine has marked the start of a new geo-economic era for the EU. The invasion has dramatically intensified the EU's ongoing economic and financial decoupling from Russia, which started in 2014, and adds to existing challenges, which are now assuming added salience: global economic decoupling between the US and China, the climate emergency and increasing irregular migration. Gaining a better understanding of the geo-economic challenges that the EU faces in its neighbouring regions and assessing their influence in relation to its peers and rivals are now of fundamental importance.

This study set out to measure the interconnectivity between the EU and its neighbouring countries¹ and to compare these interconnections with those of the EU's peers and rivals: the US, China and Russia. We have dealt with interconnectivity in five areas: trade, finance, technology and know-how, infrastructure and labour mobility. In doing so, we have sought to identify and measure the extent of these interconnections and to draw out the key geo-economic implications for the EU.

We find that the degree of interconnectivity between the EU and its neighbouring regions is very high. Across most areas of trade, finance, technological exchange,

infrastructure ownership and labour mobility, the EU is the dominant partner vis-à-vis most of its neighbouring countries, and the gap between the EU and its peers and rivals is often vast. The EU only faces direct competition from the US, China and Russia in a few areas, and there are clear areas of complementarity when it comes to the US. Except in a few Eastern Partnership countries, Russia is rarely a rival. However, we do identify several areas in which China's influence is growing and where it is increasingly a rival to the EU in its neighbouring countries. Moreover, at present, the EU's strong economic, financial, technological, infrastructural and labour-mobility links with its neighbouring regions are not accompanied by comparable political influence. In an era of much stronger geo-economic competition, this is a problem.

From our analysis, we draw the following central conclusion: the EU must do more to safeguard its interests in its near abroad by leveraging its strong economic and financial influence. First, the EU should seek fairer, deeper and more sustainable trade integration with its neighbouring regions. Second, the EU should use its strong financial position in the region to drive positive change. Third, it must improve its technological competitiveness and push integration and harmonisation in this field more in its near abroad. Fourth, the EU should take more of a lead on regional infrastructure financing and fully include its neighbouring countries in the energy transition. Fifth, the EU should formulate a new approach to labour migration based on partnership with neighbouring regions. Finally, the EU should reinvigorate its partnership with the US (while also growing more prepared to stand alone), strike the right balance with China, and continue to decouple from Russia.

¹ The reader will notice that we refer to the "EU neighbourhood" and "EU neighbouring countries" throughout this study. The European Neighbourhood (written with a capital "n") naturally refers to the Eastern Partnership and the Southern Neighbourhood. However, since we also include the Western Balkan countries and Turkey in the EU's "neighbourhood" in this study, we lowercase "neighbourhood" and "neighbouring" unless we are specifically referring to the European Neighbourhood. On a similar note, we generally try to refer to the Eastern Partnership, the Southern Neighbourhood, and (collectively) the Western Balkans and Turkey as "sub-regions" and to the three of them together as "the region".

II. Key findings

Trade

1. The EU is the dominant trade partner of most of its neighbouring countries. The EU buys up to 80 percent of the total exports of its neighbouring countries and accounts for up to 62 percent of their imports, and it is a more important trading partner than its peers and rivals² in goods and services for all countries except Armenia, Belarus and Jordan. For all its neighbouring countries, the most important route for integration into global value chains is via the EU.
2. We found that the EU is often much more ambitious than its peers and rivals in terms of pursuing trade agreements in this region. In general, those countries with the deepest trade integration with the EU (e.g. in the Western Balkans and Turkey) are those that also export relatively more sophisticated machinery and transport equipment to the EU, but there are exceptions, including Israel, Morocco and Tunisia. Otherwise, the countries of the Eastern Partnership and Southern Neighbourhood tend to export mostly commodities to the EU. The only countries that have free trade agreements comparable in depth with those of the EU are Georgia (with China) as well as Israel, Jordan and Morocco (with the US).
3. The impact of trade agreements on interconnectivity can be seen most clearly in the Eastern Partnership. In Moldova and Ukraine, which both have Deep and Comprehensive Free Trade Agreements (DCFTAs) with

the EU, the EU's importance as an export destination has markedly increased since 2007, while that of Russia has declined. However, the opposite developments could be observed in Armenia and Belarus (both of which are members of the Russia-led Eurasian Economic Union), where the share of exports to Russia has increased and that to the EU has declined.

4. Despite EU dominance, there are many neighbouring countries in which trade integration with China is rapidly increasing, and China is a growing competitor to the EU especially in the countries of the Eastern Partnership and the Southern Neighbourhood. In many neighbouring countries, the EU's dominance as a source of value added has been declining in relation to China's since 2007. This shows that China is becoming an increasingly important source of inputs for production across the neighbouring countries.
5. We find that the prevalent model of trade integration from the EU means that almost all neighbouring countries continue to run large trade deficits with the EU many years after deep trade agreements were signed. From this, we conclude that deeper trade integration between the EU and the countries in the Eastern Partnership and Southern Neighbourhood would exacerbate this deficit model, especially as these countries would be less able to integrate into European value chains.

² Here and throughout the study, the peers and rivals are identified as the US, China and Russia. More details on the choice of countries covered in this study are provided in the introduction.

Finance

6. In terms of finance, we find that the EU is far more important than the US, China or Russia in almost all neighbouring countries when it comes to FDI, banking, remittances and budget support. The EU is the main source of FDI for most countries in the region, although the US has a strong presence in Algeria and Israel, as Russia does in Armenia, Belarus and Moldova. EU banks are also the main foreign banks in most countries of the region, which indicates high interconnectivity. The only competition is coming from US lenders, mostly to countries in the Southern Neighbourhood (Algeria, Egypt, Israel, Jordan and Lebanon) as well as to Ukraine. The EU dominates as the source of remittances to Algeria, Moldova, Morocco, Tunisia, Turkey, Ukraine and the Western Balkan countries (accounting for up to 86 percent of total remittances to Albania). On the other hand, Russia is the main source to the remaining countries in the Eastern Partnership, while the US dominates in the case of Israel.
7. Total (consumed) EU budget support to its neighbouring countries, as measured only at the EU level and not taking into account the contributions of individual member states, amounted to €4.1 billion in 2020. Of this, 45 percent went to the Western Balkans and Turkey.
8. The US dollar continues to be the dominant reserve currency or denomination for foreign debt for many neighbouring countries, especially in parts of the Eastern Partnership and Southern Neighbourhood. However, the euro is also an important foreign currency and tends to dominate in Southeast Europe. This is a good example of EU-US complementarity in the neighbouring countries.
9. China's role in less conventional (and often less transparent) forms of financing in the neighbouring countries is growing. While China has not played a major role as a source of FDI in the region to date, it has expanded its primary modus operandi of providing debt financing for investment projects in the framework of its Belt and Road Initiative. This gives it important leverage in the region and can also threaten EU interests.

Technology and knowledge exchange

10. In terms of technology and know-how, most of the ICT imports (mainly services) in the EU's neighbouring countries come from the EU, although the US is also an important actor, especially in the Southern Neighbourhood. Although still small, China's share is growing almost everywhere in the neighbouring countries.
11. China is already a strong competitor to the EU in high-tech manufacturing imports, where its share across the neighbouring countries is already roughly equal to that of the EU. Moreover, the EU's share in this category has declined substantially in recent years, while China's share has increased.
12. Most exchange students from the neighbouring countries go to the EU, and this number has increased over the past decade, which indicates strong soft power potential for the EU. However, at least before the war in Ukraine, many students from Eastern Partnership countries still also went to Russia.
13. Countries from the EU's neighbouring countries primarily obtain patents in the US, though some countries from the Eastern Partnership also do so in Russia.

Infrastructure

14. In terms of greenfield investments (i.e. setting up new operations rather than merely taking over existing ones), the EU tends to be the main foreign owner of strategically important transport and telecommunications (telecoms) infrastructure. Historically, Russia has invested heavily in energy-related transport and storage capacities in parts of the Western Balkans as well as in telecoms in the Eastern Partnership. The US is particularly active in Israel in the telecoms industry, led above all by the major tech firms.

15. We find that China is an increasingly strong source of competition to the EU especially when it comes to ownership of strategically important infrastructure in the Western Balkans. China's focus in this region is particularly on transport and logistics, which we identify as a potential strategic threat to the EU's geo-economic interests in the region.

Labour mobility

16. When it comes to labour mobility, we identify a very high level of interconnectivity between the EU and its neighbouring countries. High unemployment rates in these neighbouring countries act as a push factor, while workers are pulled towards the EU by the prospect of higher wages, which are linked to better levels of economic development and tight labour markets. Labour migration to the EU from its neighbouring countries has increased strongly since 2007, and the EU has become ever more reliant on this region to fill its labour shortages. Using recent data, we also find that the EU is attracting a large share of highly skilled workers from its neighbouring countries.
17. Based on projections for labour demand and demographic trends in the EU, we expect that demand for workers from outside the bloc will remain very high. However, our results show that decades of outward migration and mostly low birthrates mean that most countries in the Eastern Partnership and Western Balkans will not be a major source of labour for the EU in the future. Only the Southern Neighbourhood will be able to provide large numbers of new workers to the EU during the current decade and beyond.

III. Introduction

It may be premature to declare that the era of globalisation is over. However, the dramatic increase in power-political – or what is today again called “geopolitical”³ – rivalry points to a different future. A war is raging in the heart of Europe, and a new power struggle – between the Western-influenced, US-led democracies and the China-led autocracies – seems almost inevitable. In this power struggle, economic relations are being used in a geo-economic manner, i.e. as a weapon to expand one’s sphere of influence.⁴ This is leading to an increased overlapping of the security and economic spheres. Yet, alongside military strength, connectivity itself is also morphing into an instrument for gaining and projecting power. The states or groups of states that will be most effectively able to strategically manage economic interdependencies in keeping with their interests and values will dominate and thereby determine the rules of tomorrow’s world order.

The EU must admit that it has ignored these geopolitical implications of ever-closer global interdependence – in economic, financial and technological terms – for too long. Instead, since the end of the Cold War, purely commercial interests have won out and, as in the case of Russia, ensured that energy commodities could be imported at very favourable prices. The economic success that resulted from this competitive advantage seemed to justify this apolitical approach. In fact, even after Russia annexed Crimea in 2014, the EU – and, in particular, Germany – ignored the warnings that being economically dependent on powers with hegemonic ambitions would make the EU susceptible

to political blackmail. Business was simply going too well to heed such unwelcome warnings. And this made the damage that much greater after Russia invaded Ukraine in February 2022.

Apart from economic interests, this carelessness – which one could also call negligence – has been based on the fact that the EU has been all too happy to cling to the belief that its own integration model will ultimately prevail throughout Europe at a minimum, if not even worldwide in the long run. After all, the reasoning holds, Europe itself achieved something historic. Through gradual economic integration and intensified cooperation, Europe helped to foster – in the tradition of liberal economic theories (e.g. that of Adam Smith) – reconciliation among the nations of Western Europe after the Second World War as well as to put their relationships on an increasingly firm legal footing. After the collapse of the Soviet Union, Europe almost succeeded in peacefully unifying the continent with its eastward expansion – “almost” because, in the meantime, the enlargement process has faltered as the EU’s most effective connectivity strategy to date. The countries of the Western Balkans had to wait a very, very long time before accession negotiations were started. The momentum of the European Neighbourhood Policy, with which the EU had set out to establish a “ring of friends” closely linked to it by deepening economic cooperation, was also lost. Instead, the EU is now surrounded by a “ring of fire” whose conflicts are making their way into and destabilising the bloc itself.

Caught in its own crises, the EU has lost a great deal of its economic and thereby also normative radiance in its neighbourhood over the past decade. The size of the EU’s single market and the prosperity of its citizens alone are no longer a powerful argument for generating influence

3 See, e.g., Hans Kundnani. “Europas geopolitische Verwirrung” *Internationale Politik* 1: 92–96: 2023 (<https://internationalepolitik.de/de/europas-geopolitische-verwirrung>).

4 See, e.g., Edward Luttwak. *Turbo Capitalism: Winners and Losers in the Global Economy*. London: Weidenfeld & Nicolson, 1998.

to promote European values. What's more, the European liberal model is no longer without alternatives for the neighbourhood region. Other actors – most notably China, with its Belt and Road Initiative – are reaching out into this space and pursuing goals that are at odds with the EU's interests when it comes to the democratic and constitutional evolution of its neighbourhood.

In the face of these challenges, the EU must ask itself what place it wants to occupy in this new geopolitical world. So far, the EU's reactions have mainly been defensive. However, merely defending its economic interests will not suffice in an environment where the United States and China have shifted to using connectivity as a weapon. Rather, the EU is being challenged to transform itself into a geopolitical actor that also actively pursues its political goals using geo-economic means. Although this applies on the global scale, it especially applies to the EU's immediate neighbourhood. Theoretically, this is where its power to shape circumstances should be greatest. This is therefore where it will be decided whether the EU can live up to its ambition to shape – alongside and with the United States and distinctly apart from China and Russia – the rules of the future world order in keeping with its values and interests.

With this study, we aim to contribute to the EU's process of learning how to better recognise and exploit its opportunities to pursue a geo-economic approach in its neighbourhood. To this end, we have compiled a "situation report", so to speak, of the EU's existing interconnectivity with the 23 states or political entities in its immediate neighbourhood. In this neighbourhood, we have included three groupings: the six states of the Eastern Partnership (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine); the 10 political entities in the Southern Neighbourhood (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Tunisia and – currently suspended – Syria); and the six states of the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia) along with Turkey.

Using a comprehensive set of indicators, we have measured the degree of economic, financial and technological interdependence in the following five fields:

- Goods and Services
- Finance
- Technology and knowledge exchange
- Infrastructure connectivity
- Labour mobility

In addition, we have compared the results of these measurements to the degree of interconnectivity of the United States, China and Russia (referred to in the study as "peers and rivals") in this region in order to also illustrate the geopolitical dimension.

The indicators used refer to the period from 2007 to 2021 as much as possible, depending on data availability. Observing these measurements and comparisons is meant to allow trends to become evident. Due to the lack of reliable data to date, we have not been able to describe the situation after Russia's invasion of Ukraine. Nevertheless, we assume that trends in the orientations of the observed countries – and especially those in the Eastern Partnership – that could already be observed before the war will intensify, either towards or away from the EU.

The "situation report" shows where the EU especially needs to make strategic readjustments as well as to either rethink its current enlargement and neighbourhood strategies or employ entirely new instruments.

In the "Conclusions" chapter, we have provided some initial assessments and recommendations. But this can only be the beginning. We therefore hope that the foundational work presented in this study will be utilised by many of our colleagues in the think tank world as well as in the political arena who are committed to a sovereign Europe, and that it will be used for strategy development.

IV. Goods and services

This chapter looks at integration in goods and services trade. To get a full picture, we use standard indicators, such as trade openness, bilateral trade shares in goods and services, trade in important commodities, and the existence of free trade agreements. However, in an attempt to understand the real impact of these relationships, we go further by also including analysis of value chain integration, the effectiveness of free trade agreements, and trade complementarity.

We find that most of the EU's neighbouring countries are small open economies that are heavily reliant on trade. The EU is by far the most important export destination for most of them, and its role as a source of imports is even bigger. Overall, neighbouring countries are much more dependent on the EU than vice versa. Among its global peers and rivals, the main competitor to the EU in the Eastern Partnership sub-region is Russia, while it is the US (on the export side) and China (on the import side) in the Southern Neighbourhood. China has been an increasingly important trading partner for the neighbouring countries, especially in the Southern Neighbourhood, albeit less so in the Eastern Partnership countries. Instead, the Eastern Partnership sub-region has been an arena of fierce trade competition between the EU and Russia, with some countries (e.g. Moldova and Ukraine) turning towards the EU while others (e.g. Armenia and Belarus) are growing closer to Russia. In terms of export specialisation in trade with the EU, the Western Balkans and Turkey generally outperform other neighbouring countries, although some of them – notably Moldova – have shown an impressive improvement over the past decade (starting from a low level).

The EU is the key trading partner in services trade for all EU neighbourhood sub-regions as well as an especially

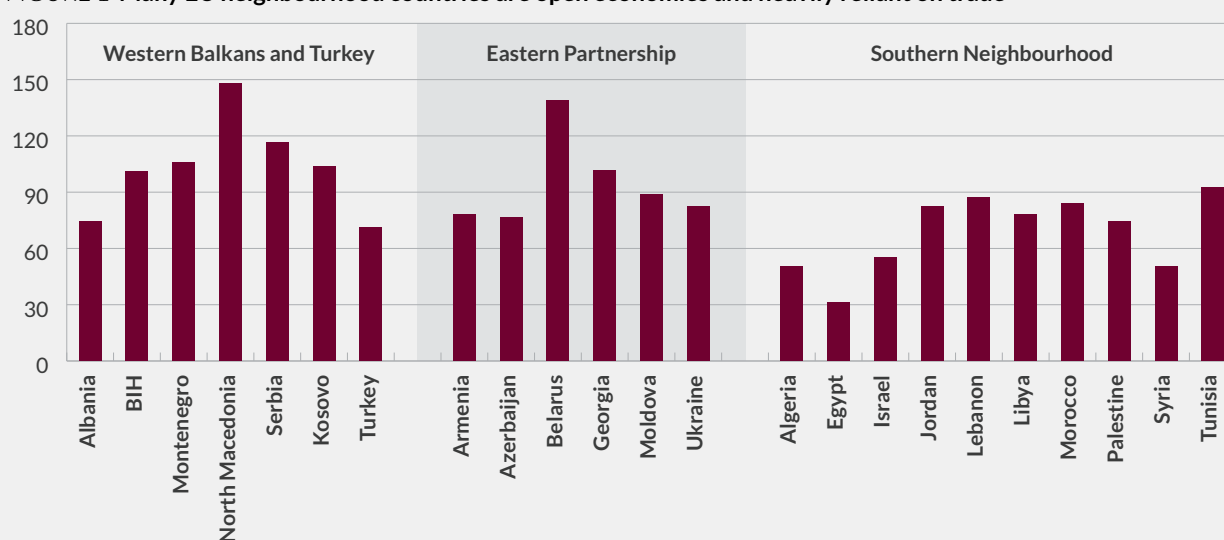
important source of services imports. Among its peers and rivals, Russia is the second-biggest destination of services exports from both the Western Balkans and Turkey as well as the Eastern Partnership countries, while it is the US in the Southern Neighbourhood. China is still only a minor destination for services exports from the EU's neighbouring countries, but its importance has been rising fast.

The EU is generally much more ambitious than its peers and rivals when it comes to making trade-integration arrangements with its neighbouring countries. However, the trade restrictions still in place effectively reduce their scope and translate into relatively high average tariffs on imports from the EU. Higher tariffs also generally act as an impediment to cross-border value chain integration. Because of the higher and more balanced trade complementarity, the potential for deeper trade integration of the Western Balkans and Turkey with the EU is likely to be greater – and the distribution of integration benefits more even – than for most countries in the Southern Neighbourhood and the Eastern Partnership sub-regions. Nevertheless, even in the case of the Western Balkans and Turkey, the EU emerges as the main beneficiary of such integration. In the past, free trade arrangements of most neighbouring countries with the EU have not resulted in faster economic growth and convergence despite deeper value chain integration in many cases.

IV.1 Trade openness

Most of the EU's neighbouring countries are small open economies that are reliant on trade, as their domestic markets tend to be rather small. On average, their trade openness (i.e. exports plus imports of goods and services)

FIGURE 1 Many EU neighbourhood countries are open economies and heavily reliant on trade



Notes: Trade in goods and services (exports plus imports) in 2021 as a percentage of GDP. Lebanon data from 2020; Libya data from 2019; Syria data from 2018. BIH = Bosnia and Herzegovina.

Source: World Bank World Development Indicators. | © Bertelsmann Stiftung and wiiv.

stood at 86 percent of GDP in 2021, or well above the global average of 52 percent (Figure 1). This should not come as a surprise, as most neighbouring countries produce only a limited range of goods and services and are therefore heavily reliant on imports. Only in Egypt, the most populous country among the neighbouring countries, is trade turnover markedly below the global average, at 31 percent of GDP, which is also roughly the case in Algeria, Israel and Syria, although to a lesser extent.

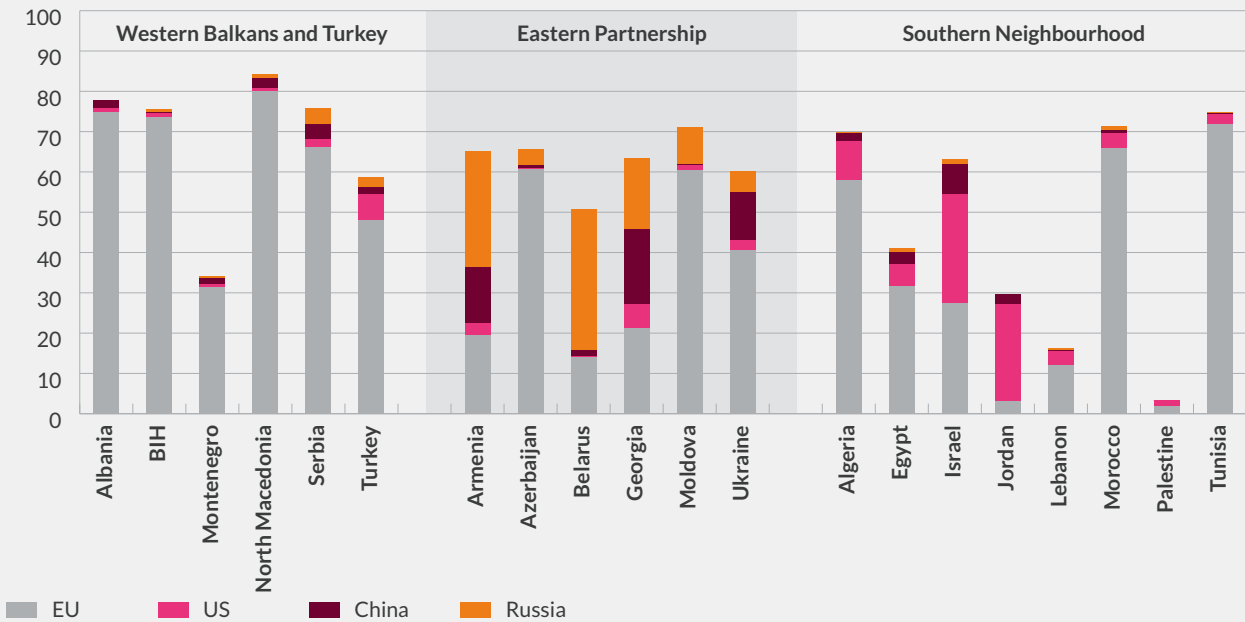
The neighbouring countries' high degree of reliance on trade underscores the importance that trade policies of global players (e.g. the EU, the US, China or Russia) have on the economic – and potentially political – developments in these countries. One manifestation of such policies is various trade integration arrangements that have been concluded between the neighbouring countries and the global peers and rivals (for a detailed analysis of them, see Chapter IV.5). On the other hand, several countries in the region have been subject to trade sanctions that have negatively impacted their economies. For instance, Belarus and Syria have been the targets of EU and US sanctions, while Georgia, Moldova and Ukraine have been sanctioned by Russia.

IV.2 Goods trade by trading partner

On average, the EU is the main destination for exports of neighbouring countries among the global peers and rivals (Figure 2). This is especially the case in the Western Balkans, where the EU receives between 32 percent (Montenegro) and 80 percent (North Macedonia) of total exports. Other countries with a notably high share of exports to the EU are Algeria (58 percent), Moldova (60 percent), Azerbaijan (61 percent), Morocco (66 percent) and, in particular, Tunisia (72 percent). The Western Balkans and Turkey send around two-thirds of their exports to the EU, while the share is roughly one-third for the Eastern Partnership and Southern Neighbourhood. In only three cases is the EU not the most important export destination among the global peers and rivals: Armenia, Belarus and Jordan. For Armenia and Belarus, Russia is the biggest export destination, while it is the US for Jordan.

Russia has a higher relative importance as an export destination for the Eastern Partnership countries. In 2021, Belarus sent 35 percent of its goods exports to Russia, while Armenia (29 percent) and Georgia (18 percent) had double-digit shares as well. In contrast, Ukraine only sent 5 percent

FIGURE 2 EU is the biggest export destination for most EU neighbouring countries



Notes: Goods exports to the EU and its global peers and rivals in 2021, as a percentage of all exported goods. Data for Albania, Jordan, Morocco, North Macedonia and Palestine from 2020; for Algeria, from 2017. Data unavailable for Kosovo, Libya and Syria. Source: UN COMTRADE-WITS. | © Bertelsmann Stiftung and wiiv.

of its exports to Russia, and this share has almost certainly declined since the war began. Outside of the Eastern Partnership countries, Russia’s importance as an export destination is negligible.

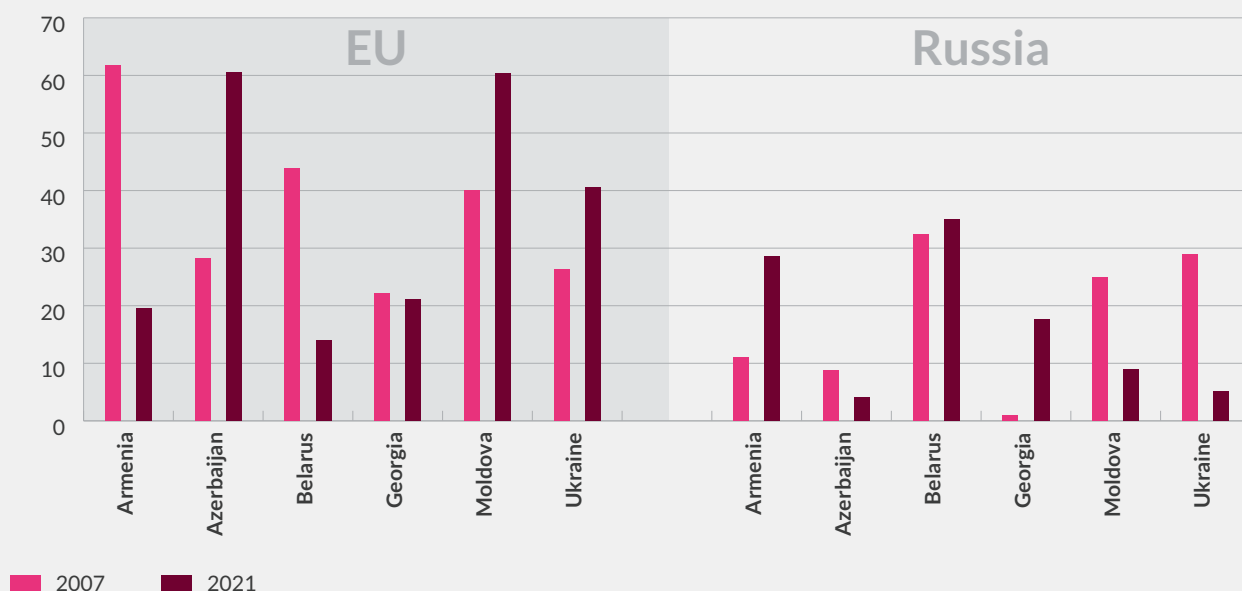
China is not a very important export destination for most neighbouring countries, although several Eastern Partnership countries – such as Georgia (19 percent), Armenia (14 percent) and Ukraine (12 percent) – send more than one-tenth of their total goods exports to China. Likewise, the US is also not an important export market for most of the countries under consideration. The exceptions to this are Israel and Jordan, which have free trade agreements with the US and sell around one-quarter of their exports to this country.

The most radical changes since 2007 in the relative importance of the EU and its global peers and rivals have occurred in the Eastern Partnership sub-region, with different shares of exports in opposite directions (Figure 3). In Moldova and Ukraine, both of which have Deep and

Comprehensive Free Trade Agreements (DCFTAs) with the EU, the EU’s importance as an export destination has increased markedly, while that of Russia has decreased. In Moldova, the share headed to the EU has skyrocketed by 20 percentage points, to 60 percent of total exports, largely due to the country’s increasing integration into the automotive industrial cluster along with its neighbour Romania. In Ukraine, a dramatic export reorientation away from Russia and towards the EU has been greatly fostered by Russia’s annexation of Crimea and its support for the “separatists” in the Donbas region.

In those Southern Neighbourhood countries where the role of the US as an export destination was relatively large to begin with (i.e. Algeria, Israel and Jordan), it has been declining (Figure 4). However, this has not necessarily translated into an increase in the EU’s importance as a destination. For instance, the share of Israel’s and Jordan’s exports to the EU has also declined, as have those of Egypt, Lebanon and Palestine.

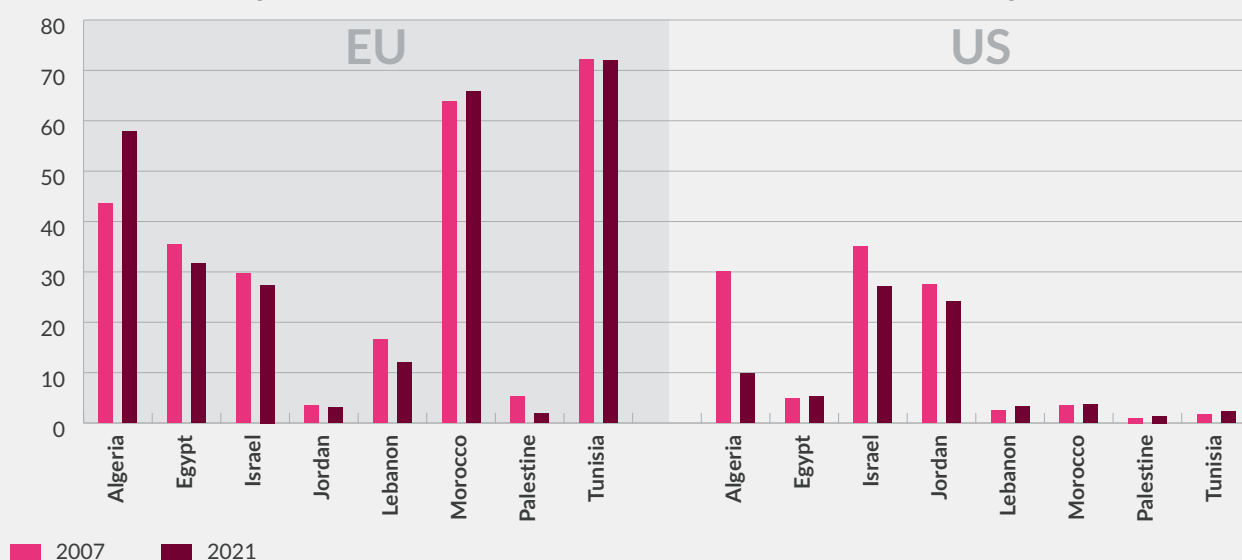
FIGURE 3 Trade polarisation between Russia and the EU in the Eastern Partnership region



Notes: Goods exports of the Eastern Partnership countries to the EU and Russia, as a percentage of all exported goods. 2007: data for Belarus from 2008; for Georgia and Moldova, from 2009; and for Ukraine, from 2011.

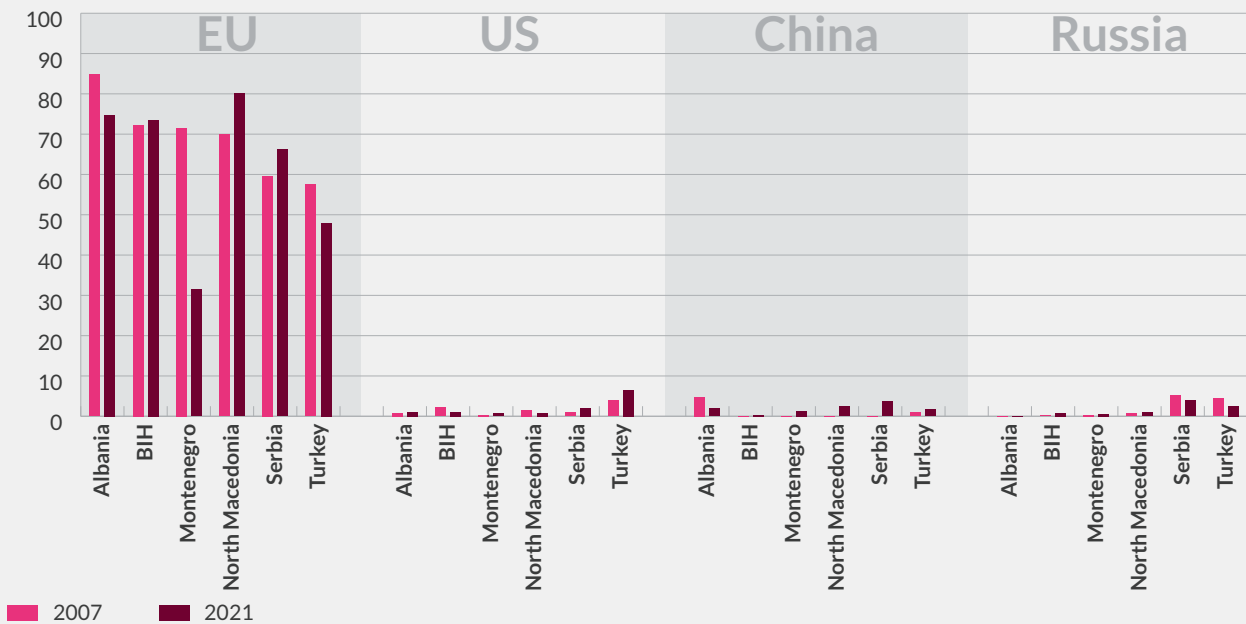
Source: UN COMTRADE-WITS. | © Bertelsmann Stiftung and wiw.

FIGURE 4 The declining role of the US as a destination for exports from the EU's Southern Neighbourhood



Notes: Goods exports of Southern Neighbourhood countries to the EU and the US, as a percentage of all exported goods. 2007: data for Egypt and Tunisia from 2008; for Morocco, from 2015. 2021: data for Jordan, Morocco and Palestine from 2020; and for Algeria, from 2017. Data unavailable for Libya and Syria. Source: UN COMTRADE-WITS. | © Bertelsmann Stiftung and wiw.

FIGURE 5 The EU remains unrivalled as the prime destination for exports from the Western Balkans and Turkey



Notes: Goods exports of the Western Balkans and Turkey to the EU, the US, China and Russia, as a percentage of all exported goods. 2007: data for Albania from 2009; for Bosnia and Herzegovina and Montenegro, from 2008. 2021: data for Albania and North Macedonia from 2020. Data unavailable for Kosovo. Source: UN COMTRADE-WITS. | © Bertelsmann Stiftung and wiiw.

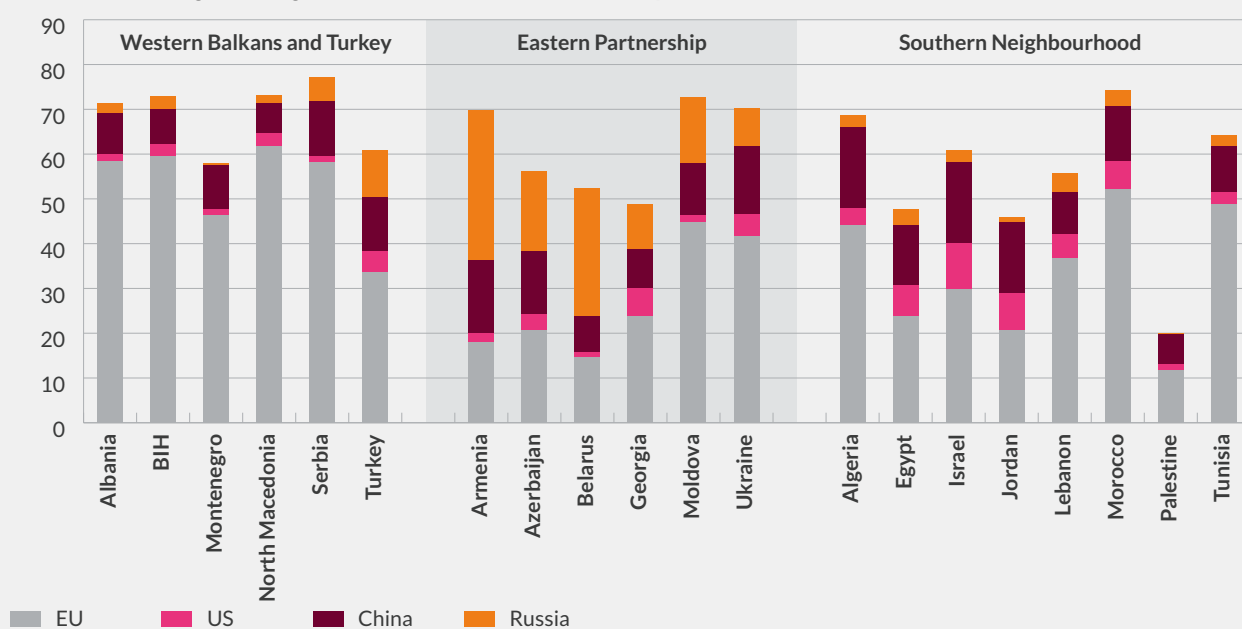
In the Western Balkans and Turkey (Figure 5), the direction of change in the importance of the EU as an export destination has been mixed. In Bosnia and Herzegovina, North Macedonia and Serbia, the share headed to the EU has been on the rise, which reflects the progressive trade (and investment) integration of these countries with the bloc. The importance of China has generally increased somewhat (with the notable exception of Albania) and that of Russia has declined, while the pattern has been mixed in the case of the US. Nevertheless, it must be stressed that the importance of the global peers and rivals as export destinations for the Western Balkan countries and Turkey continues to be very low, hovering in the low single-digit percentages in most cases.

The gap between the EU and its global peers and rivals as sources of imports for neighbourhood countries is generally smaller than the gap for exports. On average, the EU accounts for only 32 percent of the neighbouring countries' imports (compared to 37 percent in the case of exports). However, the EU is the most important source of imports

for every country except Armenia and Belarus, for both of which Russia is the most important source (Figure 6). The highest EU shares are again to be found in the Western Balkans, especially in North Macedonia (62 percent). As on the export side, the EU has limited competition from its global peers and rivals in this sub-region. Other notably high EU import shares are to be found in Morocco (52 percent) and Tunisia (49 percent).

In contrast, the shares of the EU's global peers and rivals of the neighbouring countries' imports are higher than is the case for exports. The gap is particularly pronounced in the case of China, which is the second most important source of imports for the EU's neighbouring countries (10 percent on average, compared to only 3 percent on the export side). China's role as a source of imports is particularly large in the Eastern Partnership sub-region and the Southern Neighbourhood, especially in Israel and Algeria, for both of which China accounts for 18 percent of total imports. However, in the Eastern Partnership sub-region, the EU's most important competitor is Russia. In 2021, 34 percent

FIGURE 6 EU neighbouring countries obtain most of their imports from the EU



Notes: Goods imports from the EU and global peers and rivals in 2021, as a percentage of all imported goods. Data for Albania, Jordan, Morocco, North Macedonia and Palestine from 2020; for Algeria, from 2017. Data unavailable for Libya, Kosovo and Syria.
Source: UN COMTRADE-WITS. | © Bertelsmann Stiftung and wiw.

of Armenia's total imports came from Russia, whereas the figures for Belarus and Azerbaijan were 29 and 18 percent, respectively. The US only accounts for a double-digit share of imports in Israel (10 percent in 2021) among all the EU's neighbouring countries.

The direction of changes in the relative importance of the EU and its global peers and rivals as sources of the neighbouring countries' imports over time largely mirrors that seen on the export side. In the Eastern Partnership sub-region, Ukraine has especially seen a rising share of imports from the EU, although the increase has been less pronounced than the increase in exports. In Georgia and several other Eastern Partnership countries, the EU's role as a source of imports has even declined. In the Southern Neighbourhood, the EU's main rival as a source of imports is China, whose share has been generally rising over time (except in Lebanon), while that of the EU has been either stagnant or somewhat declining. In the Western Balkans, the changes in the EU's share have been mixed, though it has continued hovering at high levels on the whole.

IV.3 Goods trade by product

For the purpose of this study, we identified products and product groups that are of particular importance to the EU's neighbouring countries, either as a source of export revenue or as a crucial foreign input for sustaining domestic production or consumption that cannot be sourced domestically. Knowledge of such vulnerabilities may be important when formulating the appropriate strategy for dealing with these countries in geo-economic terms.

Table 1 summarises the most important products and product groups among the exports of the neighbouring countries to the EU. One can generally discern a difference between the Western Balkans and Turkey, on the one hand, and the bulk of the rest, on the other. Exports from the Western Balkans and Turkey to the EU are relatively sophisticated and strongly focused on manufactured goods, machinery and transport equipment, and miscellaneous manufactured articles. For instance, machinery and transport equipment account for 39 percent of goods

TABLE 1 Western Balkans and Turkey export more sophisticated products to the EU than other EU neighbouring countries

		0	2	3	5	6	7	8	9
		Food	Crude materials	Fuels	Chemicals	Manuf. goods	Machinery	Misc.	Non-classified
Western Balkans and Turkey	Albania							X	X
	Bosnia and Herzegovina					X	X	X	
	Montenegro		X	X		X	X		
	North Macedonia				X		X		
	Serbia					X	X		
	Turkey					X	X	X	
Eastern Partnership	Armenia		X			X			
	Azerbaijan			X					
	Belarus		X			X			
	Georgia	X	X						
	Moldova	X					X		
	Ukraine		X			X			
Southern Neighbourhood	Algeria			X					
	Egypt			X		X			
	Israel				X		X		
	Jordan	X			X			X	
	Lebanon	X	X			X			
	Morocco	X					X	X	
	Palestine	X							
	Syria			X					
Tunisia						X	X		

Notes: Major export products to the EU in 2021. Data from 2020 for Albania, Jordan, Morocco, North Macedonia and Palestine; from 2017 for Algeria; and from 2010 for Syria. Data unavailable for Libya and Kosovo. Product groups according to the SITC classification at one-digit level, accounting for at least 15 percent of total merchandise exports of the respective country to the EU. 0: Food and live animals; 2: Crude materials, inedible, except fuels; 3: Mineral fuels, lubricants and related materials; 5: Chemicals and related products not elsewhere classified; 6: Manufactured goods classified chiefly by material; 7: Machinery and transport equipment; 8: Miscellaneous manufactured articles; 9: Commodities not classified elsewhere in the SITC.

Source: Own elaboration based on UN COMTRADE-WITS data. | © Bertelsmann Stiftung and wiiw.

exports in North Macedonia, 34 percent in Turkey, and 33 percent in Serbia, with all these countries specialising heavily in the production of cars and automotive components destined for European markets.

The commodity pattern of the exports of Eastern Partnership and Southern Neighbourhood countries to the EU is generally less advanced. Food products are the most common area of specialisation of these countries' exports to the EU (six countries of the two sub-regions specialise in

food), followed by crude materials and manufactured goods (with five countries specialising in each). The domination of food is most pronounced in the case of Palestine, where it accounts for 76 percent of total exports to the EU, while crude materials (largely iron ore) account for 53 percent of Georgian exports to the EU. Exports of Algeria, Azerbaijan and Syria to the EU consist almost entirely of fuels (oil and natural gas).

TABLE 2 Exports of Eastern Partnership countries to Russia are less sophisticated than those to the EU

	0	1	2	5	6	7	8
	Food	Beverages	Crude materials	Chemicals	Manuf. goods	Machinery	Misc.
Armenia	X	X					X
Azerbaijan	X			X			
Belarus	X				X	X	
Georgia	X	X			X		
Moldova	X						
Ukraine			X		X	X	

Notes: Major export products of Eastern Partnership countries to Russia in 2021. Product groups according to the SITC classification at one-digit level, accounting for at least 15 percent of total merchandise exports of the respective country to Russia. 0: Food and live animals; 1: Beverages and tobacco; 2: Crude materials, inedible, except fuels; 5: Chemicals and related products not elsewhere classified; 6: Manufactured goods classified chiefly by material; 7: Machinery and transport equipment; 8: Miscellaneous manufactured articles.
Source: Own elaboration based on UN COMTRADE-WITS data. | © Bertelsmann Stiftung and wiw.

In contrast to the Western Balkans and Turkey, there are only four countries in the Eastern Partnership and Southern Neighbourhood with a high degree of specialisation in machinery and transport equipment: Israel, Moldova, Morocco and Tunisia. This specialisation is an entirely new phenomenon in Moldova, where the share of machinery and transport equipment in total exports to the EU soared from only 3 percent in 2011 to 30 percent in 2021. This can only be partially attributed to the DCFTA, as the first marked jump (by nearly 20 percentage points) already occurred back in 2012 – or well before the DCFTA was signed. In the remaining three countries, the available time series also suggest a general, albeit less pronounced, increase in the share of machinery and transport equipment in total exports to the EU – to 44 percent in Morocco, 41 percent in Tunisia, and 34 percent in Israel.

How does this compare to the structure of the exports of the EU's neighbouring countries to its global peers and rivals? Here, we highlight two global peers and rivals that are of particular relevance to the individual sub-regions: Russia for the Eastern Partnership countries (Table 2), and the US for the Southern Neighbourhood (Table 3).

Table 2 demonstrates the prominent role of food and beverages in the total exports of Eastern Partnership countries to Russia, which is much larger than in the case of such exports to the EU. The likely explanations for this are geography (i.e. close proximity to Russia) and history (e.g. the good reputation of Georgian wines or Armenian

cognac in Russia, dating back to Soviet or pre-Soviet times). By contrast, food exports to the EU are often constrained by the quantitative restrictions still in place (e.g. tariff quotas), limited familiarity with their products, and the high subsidies granted to European farmers via the EU Common Agricultural Policy.

The specialisation of Southern Neighbourhood countries in exports to the US (Table 3) is generally similar to the one for exports to the EU. Israel, which is the most economically advanced country of the sub-region and has a free trade agreement with the US, unsurprisingly shows the most diversified structure of exports, with chemicals, manufactured goods, machinery and transport equipment, and miscellaneous manufactured articles all featuring prominently.

TABLE 3 Exports of Southern Neighbourhood countries to the US are more sophisticated than those to the EU

	0	3	4	5	6	7	8
	Food	Fuels	Oils	Chemicals	Manuf. goods	Machinery	Misc.
Algeria		X					
Egypt					X		X
Israel				X	X	X	X
Jordan							X
Lebanon	X			X			X
Morocco	X			X		X	
Palestine	X		X				
Syria		X					
Tunisia			X	X		X	

Notes: Major export products of Southern Neighbourhood countries to the US in 2021. Data from 2020 for Jordan, Morocco and Palestine; from 2017 for Algeria; and from 2010 for Syria. Data unavailable for Libya. Product groups according to the SITC classification at one-digit level, accounting for at least 15 percent of total merchandise exports of the respective country to the US. 0: Food and live animals; 3: Mineral fuels, lubricants and related materials; 4: Animal and vegetable oils, fats and waxes; 5: Chemicals and related products not elsewhere classified; 6: Manufactured goods classified chiefly by material; 7: Machinery and transport equipment; 8: Miscellaneous manufactured articles.

Source: Own elaboration based on UN COMTRADE-WITS data. | © Bertelsmann Stiftung and wiiw.

IV.4 Value chain integration

Value chains, which entail the production of products in multiple countries, have become an important feature of global trade owing to the fact that trade in intermediates has grown more rapidly in the recent past than trade in finished goods. Global value chains are assessed using multi-country input-output tables (MC IOTs), which allow researchers to track in which countries value is added and then contained (or “embodied”) in the gross export flows. One such MC IOT is the EORA database,⁵ which covers 190 countries and publishes data on global value chain integration on the national and bilateral levels.

On the national level, we can compute the following indicators:

- DVA: domestic value added content of exports [Example: Austrian intermediate inputs (e.g. apples) are embodied in Austrian exports (e.g. apple strudels)]
- FVA: foreign value added content of exports [Example: value added imported as intermediate inputs from abroad is embodied in the exports of Austria (e.g. German apples are included in Austrian apple strudels)]

- DVX: indirect value added exports (i.e. domestic value added embodied in exports of other countries) [Example: Austrian value added is embodied as intermediate exports in the exports of another country (e.g. Austrian apples are included in German apple strudels)]
- GVC: global value chain integration, an indicator of the overall integration of a country into global value chains, calculated as the sum of DVX and FVA (e.g. Austrian apples included in German apple strudels, plus German apples included in Austrian apple strudels).

FVA and DVX are also known, respectively, as backward and forward linkages. Backward linkages quantify the degree to which foreign value added is used in domestic production (and, thus, an indicator of upstream integration). Forward linkages tell us how much domestically produced value added is then contained in exports of another country (i.e. value added that is exported as an intermediate input). It is therefore an indicator of downstream integration. The share of domestic value added in total exports declines as global value chain integration increases (e.g. through increased sourcing of inputs from abroad).

⁵ See Casella et al. (2019) and UNCTAD (undated).

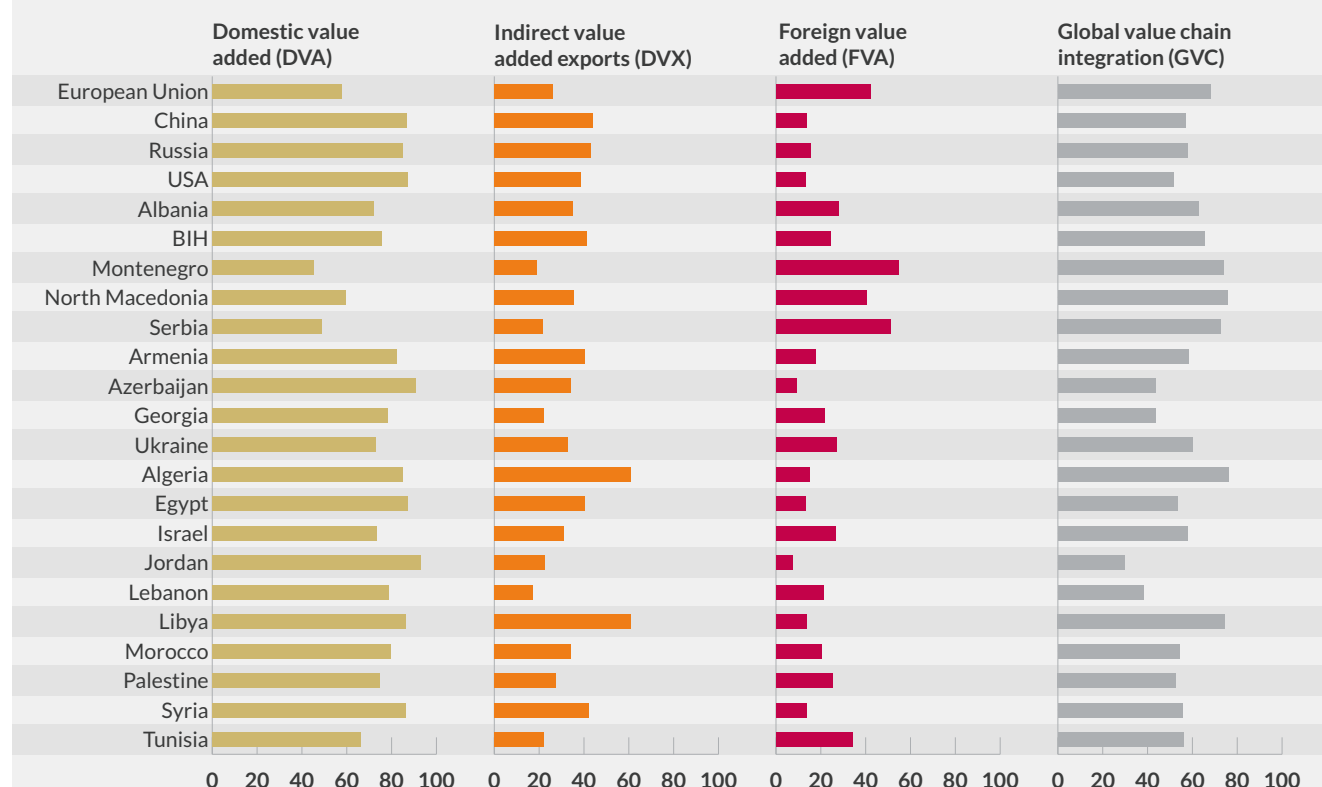
Figure 7 shows the shares in 2019 of the above-mentioned indicators DVA, FVA and DVX in relation to total value added exports. We see a general pattern in that the largest part of value added exports is usually domestically produced value added (DVA). Southeast European countries – notably Montenegro, North Macedonia, Serbia and Turkey – exhibit high shares of foreign value added, as these countries are particularly reliant on foreign-sourced intermediate products to produce their exports. Additionally, we see oil-rich countries (e.g. Algeria and Libya) showing elevated levels of indirect value added exports, meaning that Algerian and Libyan products often end up as intermediate inputs in value added exports of other countries. Among the peers and rivals (China, Russia and the US), the EU stands out as having the lowest share of domestic value added but the highest share of foreign value added. However, this is an

artifact of the accounting in the UNCTAD-Eora database, which does not allow us to differentiate between intra-EU and extra-EU flows.⁶

Figure 8 shows the shares of selected partner regions in total global value chain integration [i.e. the sum of backward linkage (FVA) and forward linkage (DVX)] of the European neighbourhood countries for 2007 and 2019 to determine both their relative importance and how this has changed over time.

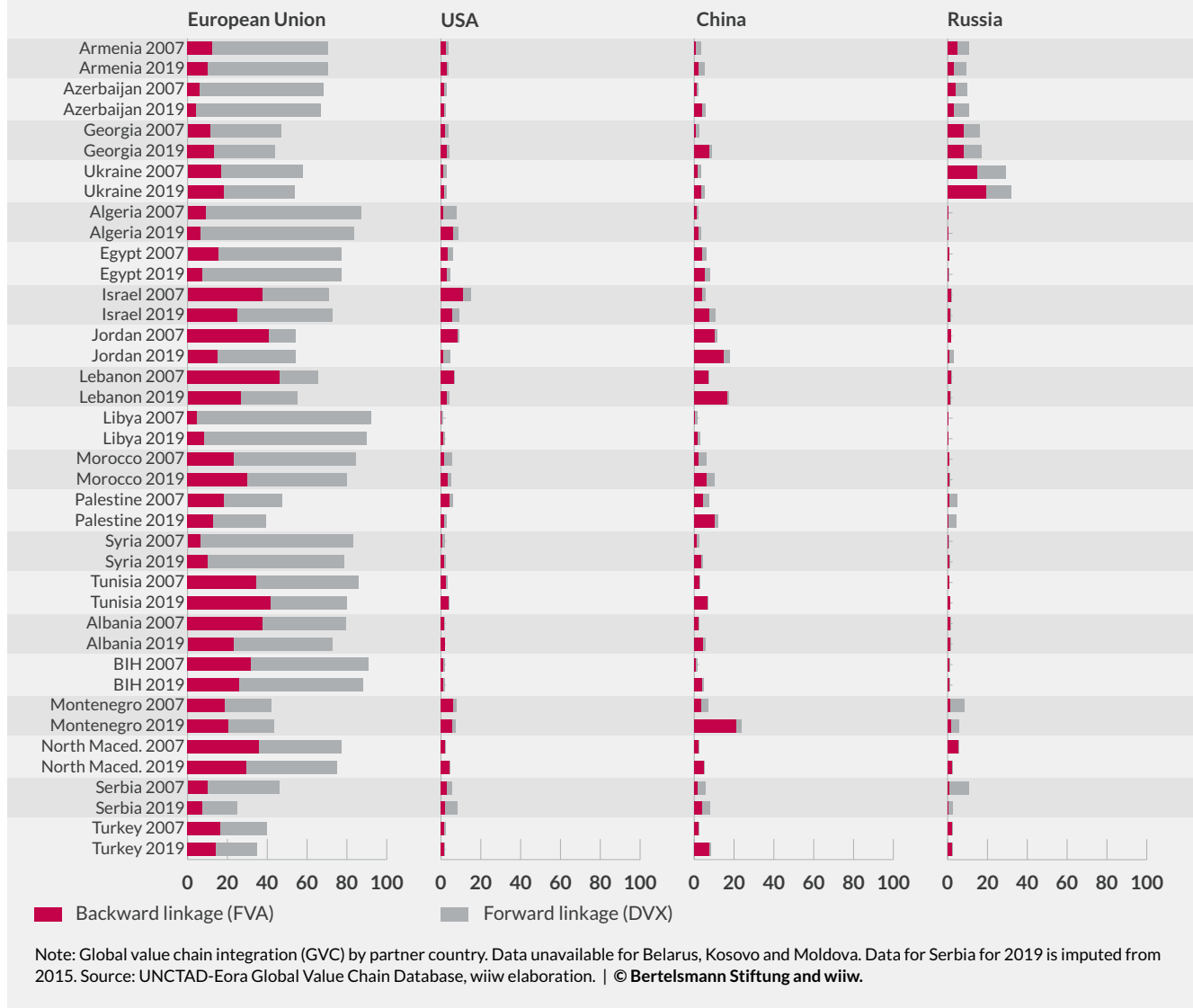
6 More precisely, the domestic value added share for the EU only contains value added that is produced and exported by a member state (e.g. Austria) and does not include value added that is produced in one EU country and exported by another (because this information is not available in the UNCTAD-Eora database). This intra-EU value added flow is included in the foreign value added share.

FIGURE 7 Levels of global value chain integration differ substantially across EU neighbouring countries



Note: Value chain integration indicators on the national level in 2019. Data unavailable for Belarus, Kosovo and Moldova. Data for the EU includes intra-EU exports and imports (as the UNCTAD-Eora Global Value Chain Database does not include information about the partner country of an export flow). Source: UNCTAD-Eora Global Value Chain Database, wiiw elaboration. | © Bertelsmann Stiftung and wiiw.

FIGURE 8 EU dominant as a regional hub for global value chain integration, with China and Russia present in some of the countries



The European Union is the biggest supplier of foreign-produced value added [backward linkages (FVA), shown as orange bars] in all these countries, which is not surprising given the size of its economy and its geographical proximity. However, its role has been mostly decreasing in the Western Balkans and the Eastern Partnership and Southern Neighbourhood countries. These countries have diversified their connections not only to China, but also to other countries in the rest of the world. Russia still plays

an important role for the Eastern Partnership countries. In Armenia, Azerbaijan and Georgia, the share of FVA from Russia has fallen over the years. In Ukraine, it has also declined since 2014, but it was still above the level of 2007 in 2019. The role of China as a supplier of value added has increased in all countries in the region over the years. The largest increases can be seen in Montenegro and Turkey, where China's share of total FVA has risen to over 20 percent.

The picture for indirect value added exports [forward linkages (DVX), shown as blue bars] looks even more drastic: The European Union is by far the biggest buyer and user of value added produced in those neighbourhood countries. Comparing the shares in 2007 with those in 2019, we can also observe that the EU's share has also increased in the Western Balkan countries, which indicates improving business connections with those countries.

Again, Russia only plays a role in the Eastern Partnership countries, but not in the Southern Neighbourhood or Western Balkan countries. And China and the US are hardly worth mentioning, as the share of value added of European neighbourhood countries is always in the lower single digits.

Taken together, these value chain results show a large dominance of the EU in both forward and backward linkages, which in turn demonstrates that the Western Balkans, Turkey and the Southern Neighbourhood countries are primarily integrated into global value chains via the EU. However, there are two important caveats to this general statement. First, there is some competition on the inputs side, especially from Russia (in fuels and energy-related products) in the former countries of the Soviet Union, and the role of China as a supplier of inputs is rising in all observed countries. Second, the patterns of integration are changing over time – and not always in the EU's favour.

IV.5 Free trade agreements

The importance of the EU as a trading partner to its neighbouring countries is partly a reflection of geographic proximity, but also of existing trade arrangements. Table 4 summarises the existing free trade agreements (FTAs) between neighbouring countries with the EU, on the one hand, and its global peers and rivals, on the other. One can see that most neighbourhood countries (except Azerbaijan, Belarus, Libya and Syria) have some sort of a free trade agreement with the EU. However, the number of such agreements with the EU's global peers and rivals is much lower, as only Israel, Jordan and Morocco have an FTA with the US, and only Georgia has one with China. However, nearly all countries of the Eastern Partnership (apart from Ukraine), as well as Serbia and Egypt, have a free trade regime with Russia or Russia-led trade blocs, such as the

Eurasian Economic Union (EAEU) or the Commonwealth of Independent States Free Trade Area (CISFTA).

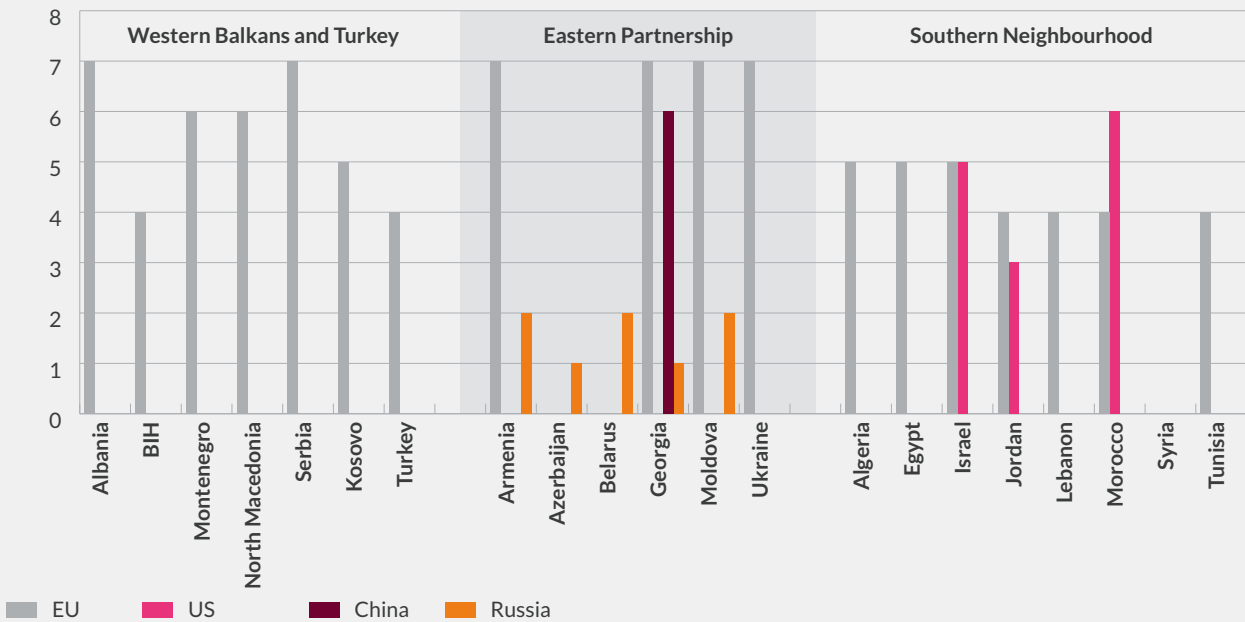
The FTAs of neighbouring countries with the EU as well as its global peers and rivals, which are presented in Table 4, vary greatly with respect to their scope and trade facilitation potential. To account for this, we present two indicators in the following: (i) the depth index of FTAs

TABLE 4 **EU tops trade integration arrangements with its neighbourhood countries compared to China, Russia and the US**

		EU	US	China	Russia
Western Balkans and Turkey	Albania	X			
	Bosnia and Herzegovina	X			
	Montenegro	X			
	North Macedonia	X			
	Serbia	X			X
	Kosovo	X			
	Turkey	X			
Eastern Partnership	Armenia	X			X
	Azerbaijan				X
	Belarus				X
	Georgia	X		X	X
	Moldova	X			X
	Ukraine	X			
Southern Neighbourhood	Algeria	X			
	Egypt	X			X
	Israel	X	X		
	Jordan	X	X		
	Lebanon	X			
	Libya				
	Morocco	X	X		
	Palestine	X			
	Syria				
Tunisia	X				

Notes: An association agreement between the EU and Syria has been drafted but not signed (EEAS 2016). Armenia and Belarus are part of the Russia-led Eurasian Economic Union (EAEU). Serbia and Egypt have FTAs with the EAEU. Moldova shares CISFTA with Russia. Ukraine's participation in CISFTA was suspended in 2016. The Georgia-China FTA includes Hong Kong. Sources: WTO, wiiw research. | © Bertelsmann Stiftung and wiiw.

FIGURE 9 Free trade agreements with Russia are much shallower than with the EU and its peers and rivals



Notes: Index of depth of FTAs with the EU, Russia, China and the US. The depth index is a simple additive index of seven key elements that can be part of an FTA: tariff reduction, intellectual property rights protection, government purchases, technical barriers to trade, services, investments and competition. An index value can vary between 0 (no key element is covered by the FTA) and 7 (all key statements are covered), with higher values indicating a deeper FTA. Data unavailable for the Palestine-EU, Serbia-EAEU and Egypt-EAEU FTAs. Libya does not have any FTAs with the EU or its global peers and rivals. Source: Dür et al. 2014. | © Bertelsmann Stiftung and wiw.

developed by Dür et al. (2014), which shows how many areas are covered beyond trade liberalisation, and (ii) the effective (weighted average) import tariff rate. The latter reflects any omissions from free trade provisions, which are often to be found with respect to food and agriculture (although the effective tariff rate is also influenced by the trade structure).

Figure 9 shows the depth index of FTAs of neighbouring countries with the EU and its global peers and rivals, with higher values of the index indicating a deeper (i.e. a more comprehensive) agreement. One can see that trade agreements concluded by the EU tend to be the deepest. In fact, the DCFTAs with Georgia, Moldova and Ukraine, the Comprehensive and Enhanced Partnership Agreement (CEPA) with Armenia, and two of the Stabilisation and Association Agreements (SAAs) – with Albania and Serbia – have the highest possible depth index (i.e. seven) in addition to covering a wide range of areas beyond mere trade liberalisation, including intellectual property rights protection, public procurement, technical barriers to trade,

trade in services, investments and competition rules. All these EU integration initiatives are very ambitious and far-reaching, and they make the countries involved highly integrated into the EU market – even if this does not always translate into an improvement in their trade balances (for more on that, see Chapter IV.7).

In general, the depth of SAAs signed with the Western Balkan countries and of the EU Association Agreement with Turkey should not come as a surprise, since these countries (except Bosnia and Herzegovina and Kosovo) are officially recognised as EU accession candidates. Thus, these agreements are similar to the Europe Agreements signed in the 1990s between the EU and the Central European countries that later joined the bloc. What has come as more of a surprise has been the depth of DCFTAs, which until recently required Eastern Partnership signatory countries to effectively implement all the EU *Acquis Communautaire* – but without the “carrot” of EU membership (although Moldova and Ukraine were finally granted EU candidate

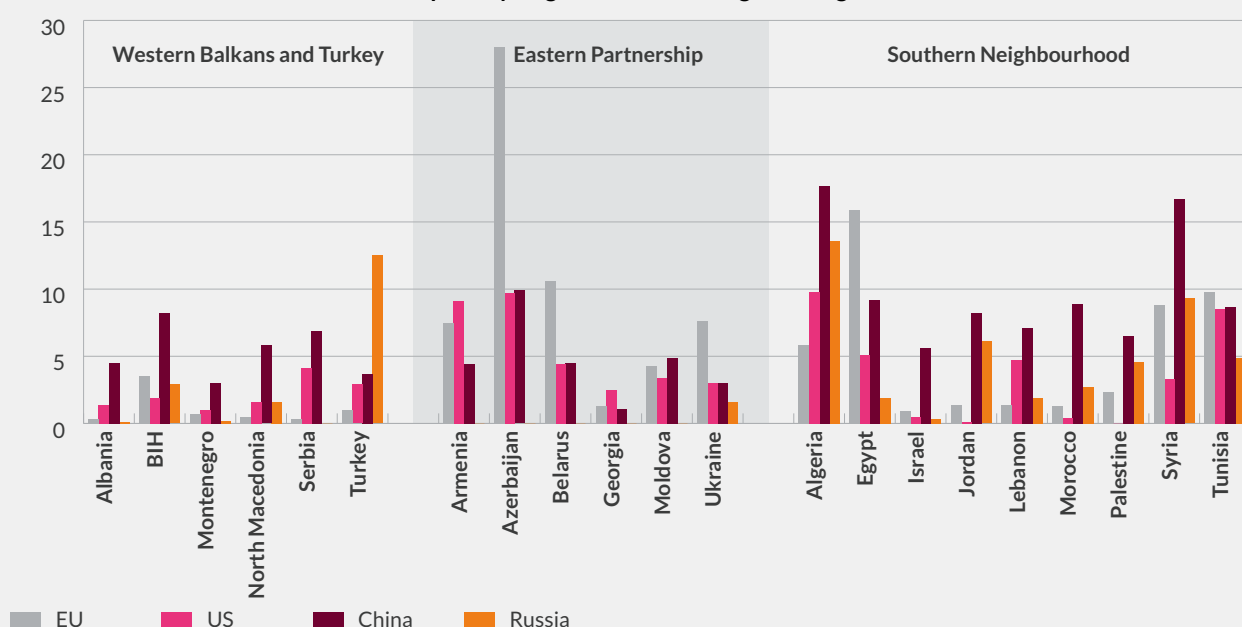
status in June 2022). On the other hand, the Euro-Mediterranean Association Agreements signed by the EU with most Southern Neighbourhood countries – which do not have EU membership prospects – are generally shallower, and their depth index does not exceed five (out of a maximum of seven).

The existing FTAs of the EU’s neighbouring countries with the US and China are also rather deep, but those with Russia are much shallower. In fact, the FTA depth index with Russia does not exceed two for a single Eastern Partnership country. This is even the case for Armenia and Belarus, both of which are members of the Eurasian Economic Union (while Belarus is even formally part of a common “Union State” with Russia).

Figure 10 presents weighted average tariffs that the EU’s neighbouring countries impose on their imports from the EU as well as its global peers and rivals. Here, one can first see that effective tariffs on imports from the EU tend to vary

widely, depending on the country group. They are typically very low in Turkey and the Western Balkans (Bosnia and Herzegovina has the highest rate, at 3.5 percent), but they tend to be much higher in the Eastern Partnership sub-region and the Southern Neighbourhood – despite the free trade agreements that most of these countries have with the EU. The explanation for this primarily lies in the import structure, as transport equipment and food – which typically have higher tariffs than other goods – account for a large share of imports from the EU in many of these countries. In Tunisia, for example, tariffs on agricultural products amount to 32 percent on average, while tariffs are on average close to zero for other goods (Chebbi and Overdiek 2022). In Azerbaijan and Belarus, which are not even members of the WTO, as well as in Egypt, the tariffs are particularly high and hover in the double digits. However, in the DCFTA signatory countries, they should go down markedly in the years ahead, as transitory provisions cushioning the impact of trade liberalisation on domestic producers will expire.

FIGURE 10 Goods from China face comparably large tariffs in EU neighbouring countries



Notes: Weighted average tariff rate on imports from the EU, China, Russia and the US, in percent. Data from 2019 or the latest year in which they are available. Data for Serbia from 2018; for Israel, Jordan and Palestine, from 2017; for Georgia, Moldova and Tunisia, from 2016; and for Syria, from 2013. For Albania, Belarus, Egypt, Lebanon, Montenegro and Ukraine (only in trade with China), trade weights are from 2018; for Algeria, from 2017. Data unavailable for Kosovo and Libya.

Sources: UN COMTRADE, UNCTAD TRAINS via WITS. | © Bertelsmann Stiftung and wiw.

Second, tariffs on Chinese imports in the EU’s neighbouring countries tend to be rather high across the board. In Algeria and Syria, they exceed as much as 15 percent. In at least 14 countries, Chinese goods face tariffs that are higher than those imposed on EU, Russian and US imports.

Third, in most Eastern Partnership countries, tariffs on imports from Russia are equal to zero. This is only partly a manifestation of their free trade regimes with Russia. Another contributing factor is that the bulk of imports from Russia consists of energy, which is often traded duty-free.

All in all, the EU is generally much more ambitious with respect to trade integration arrangements with its neighbouring countries than its global peers and rivals, and these arrangements are in many cases very far-reaching. However, the trade restrictions still in place effectively reduce their scope and translate into relatively high average tariffs on imports from the EU.

IV.6 Services trade

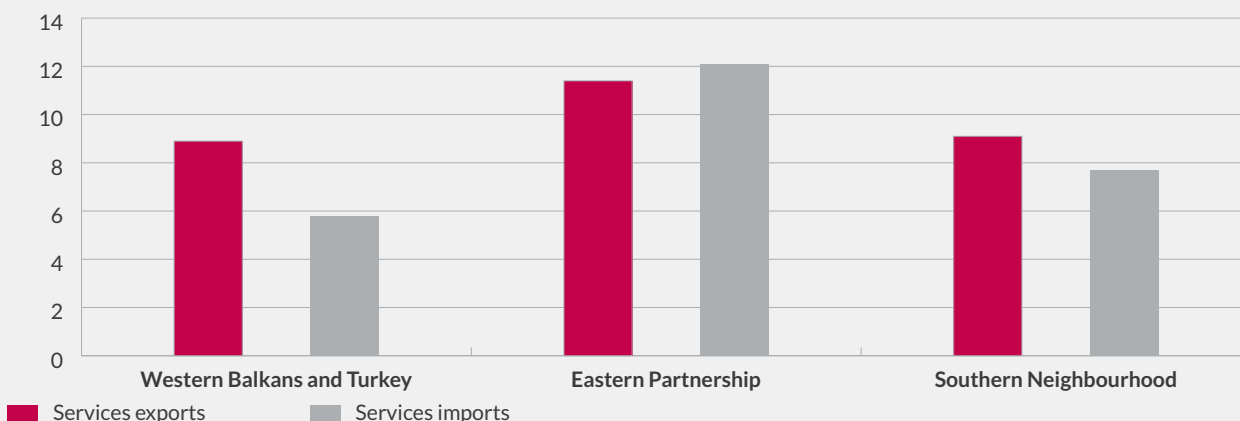
Services trade plays a significant role in the economies of the EU’s neighbourhood countries as a share of their total GDP. As Figure 11 shows, services exports account for 8.9 to 11.4 percent of GDP, while services imports range between 5.9 and 12.1 percent of GDP. Services trade is especially

important for Eastern Partnership countries, where services exports and imports accounted for 11.4 and 12.1 percent of GDP, respectively, in 2019.

In terms of sector breakdown, transport and travel are the biggest sectors in services exports for all three sub-regions (Figure 12). The export of travel services is especially important for the Western Balkans and Turkey, where it accounted for 43.0 percent of total services exports in 2019, followed by the Southern Neighbourhood, where it made up a 38.5 percent share. In the Western Balkans and Turkey sub-region, Montenegro and Albania rely the most on travel services exports, as the sector accounted for 82.4 and 63.1 percent of total services exports in 2019, respectively. In the Southern Neighbourhood, the highest shares of travel services in total services exports were in Lebanon (62.4 percent), Jordan (57.4 percent) and Tunisia (52.9 percent). In contrast to those in the other two sub-regions, the countries of the Eastern Partnership are collectively a net importer of travel services, with Moldova, Armenia and Ukraine having the highest shares of travel services in their services imports (66.1, 59.6 and 42.0 percent, respectively).

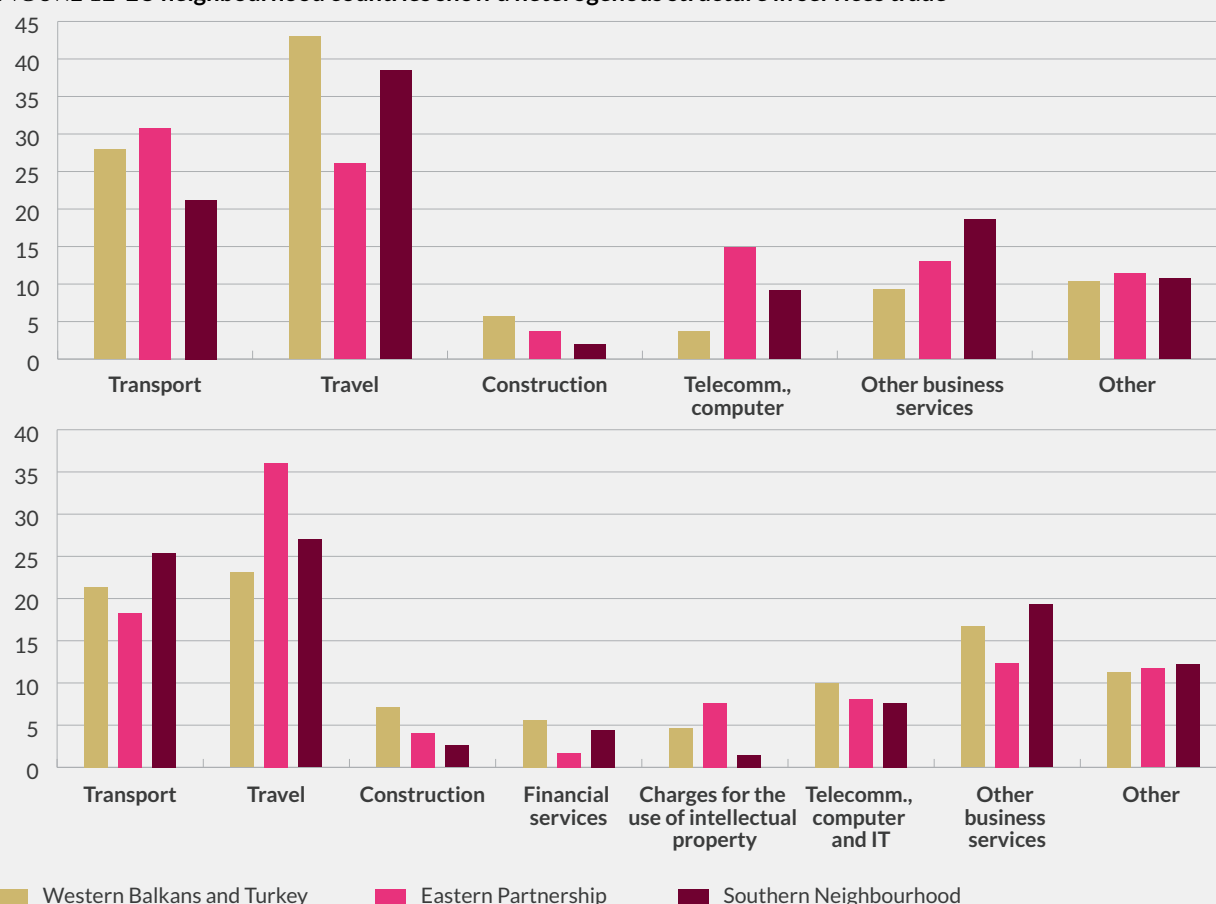
Together, Eastern Partnership countries have the highest share of transport services in total services exports (30.8 percent), with Belarus and Azerbaijan leading in this respect, with 42.1 and 32.5 percent shares, respectively. This sub-region also outperforms the EU’s other neighbouring

FIGURE 11 Services trade plays an important role in the EU neighbourhood economies



Note: Share of services exports and imports in 2019 GDP, in percent. Regional shares are calculated as the simple average. Sources: WTO, WDI; own calculations. | © Bertelsmann Stiftung and wiw.

FIGURE 12 EU neighbourhood countries show a heterogenous structure in services trade



Note: Sector structure of the value of service exports (above) and imports (below) in 2019, in percent. Regional shares are calculated as a simple average. Source: WTO; own calculations. | © Bertelsmann Stiftung and wiw.

sub-regions in terms of the share of telecommunications, computer and IT services in services exports. Here, it reached 14.9 percent in 2019, compared to 3.7 percent in the Western Balkans and Turkey and 9.1 percent in the Southern Neighbourhood.

The Southern Neighbourhood also has the highest shares of other business services compared to other EU neighbourhood sub-regions both in services exports and imports (18.6 and 19.3 percent, respectively), making it the third-biggest sector in services trade of this sub-region. Other business services include the following three sub-categories: research and development (R&D) services;

professional and management consulting services; and technical, trade-related and other business services.

The EU is the main destination for services exports from all three sub-regions (see Figure 13), accounting for between 25 and 31 percent of total services exports. In some countries, the EU accounts for the lion's share of services exports. For example, the EU accounts for 88.6 percent of services exports from Kosovo, while Bosnia and Herzegovina and Tunisia have the second- and third-highest shares in services exports to the EU among the EU's neighbouring countries (47.3 and 45.3 percent, respectively).

FIGURE 13 The EU is the key trading partner in services trade for all the EU neighbourhood sub-regions



Note: Value of services exports to the EU and its peers and rivals (above), and value of services imports from the EU and its peers and rivals (below) in 2019; shares in total services exports in percent. Regional shares are calculated as a simple average. Source: WTO; own calculations. | © Bertelsmann Stiftung and wiiv.

Russia is the second-biggest destination for services exports from the Western Balkans and Turkey as well as the Eastern Partnership countries, with the latter directing as much as 17.4 percent of their services exports to this destination. In the Southern Neighbourhood, Russia is a minor market for services exports, accounting for only 2.1 percent. The US is a much bigger trading partner, with a 15.2 percent share. And China appears to be a minor market for services exports from all three sub-regions, with its shares ranging between 4 and 6 percent.

For services imports, the EU plays a relatively more important role than it does for exports, accounting for as much as 44.3 percent of services imports in the Western Balkans and Turkey, 38.8 percent in the Eastern Partnership

countries, and 31.6 percent in the Southern Neighbourhood. The EU's shares in services imports in Kosovo, Morocco and Ukraine were the highest compared to other countries in the sub-region (at 83.2, 53.6 and 51.7 percent, respectively).

The US is the second-biggest source of services imports in the Southern Neighbourhood as well as in the Western Balkans and Turkey, with shares of 17.1 and 10.5 percent, respectively. In the Eastern Partnership countries, Russia narrowly outperformed the US, which have respective shares of 11.4 and 9.6 percent. Russia is a relatively more important source of services imports in Belarus and Armenia, accounting for 27.6 and 16.7 percent, respectively, while the US accounts for a much higher share of services imports in Azerbaijan and Georgia than Russia does, with

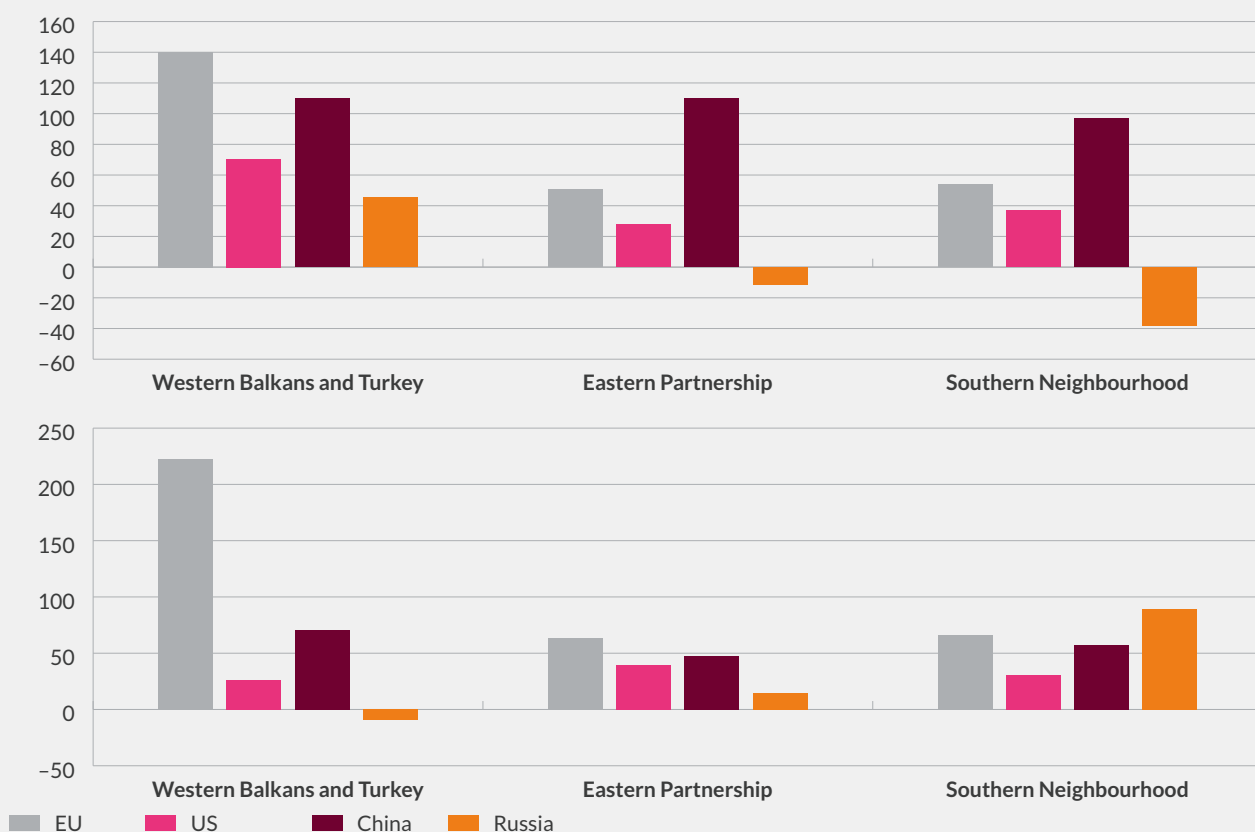
respective shares of 16.1 versus 5.6 percent and 14.8 versus 3.6 percent. China’s share in services imports does not exceed 5 percent in any of the countries in the EU neighbourhood.

Although China accounts for relatively small shares in services exports of the EU’s neighbouring countries, its importance as a destination for services exports has been rising in all of the three sub-regions (see Figure 14). Between 2010 and 2019, services exports to China from the Western Balkans and Turkey and the Eastern Partnership countries more than doubled, while exports from the Southern Neighbourhood increased by 96.6 percent (partly also due to the low base level).

Montenegro and Serbia recorded the fastest growth in services exports to this destination, which increased by more than five and four times, respectively.

Services exports to the EU also increased in all three sub-regions, but there was noticeable variability of growth speed. While the Western Balkans and Turkey increased their services exports to the EU by 140.1 percent, the respective values were 54.0 and 50.7 percent for the Southern Neighbourhood and the Eastern Partnership countries. Turkey and Montenegro increased their services exports to this destination the fastest in the Western Balkans and Turkey sub-region. In the Eastern Partnership countries, the biggest rise in services exports to the EU

FIGURE 14 China’s importance as a destination for service exports increased substantially for all EU neighbourhood countries



Note: Change in the value of services exports to the EU and its peers and rivals (above), and services imports from the EU and its peers and rivals (below) between 2010 and 2019, in percent. Regional shares are calculated as a simple average.
 Source: WTO; own calculations. | © Bertelsmann Stiftung and wiiw.

were recorded in Armenia and Georgia, while it was in Egypt and Israel in the Southern Neighbourhood.

Services exports to the US from the EU's neighbouring countries increased rather unevenly among the sub-regions. While there was 70.4 percent growth for the Western Balkans and Turkey, the value of this indicator was roughly half of that (36.7 percent) for the Southern Neighbourhood, and services exports to the US from the Eastern Partnership countries only increased by 27.9 percent during the 10-year period between 2010 and 2019.

In this same period, Russia lost its importance as a destination for services exports in the Southern Neighbourhood and Eastern Partnership countries, with the value of exports declining by 38.0 and 11.7 percent, respectively. In the Southern Neighbourhood, the sharpest decline in services exports to Russia took place in Libya and Egypt, whereas Tunisia almost doubled its services exports to this destination. Israel also increased its services exports to Russia. In the Eastern Partnership countries, quite predictably, it was Ukraine that decreased its exports to Russia the most, while Belarus more than doubled its services exports to the country, which remains its main trading partner. In the Western Balkans and Turkey, Albania and Serbia recorded the fastest growth in services exports to Russia, which reflects the strengthening of economic and political ties between the countries.

When we look at services imports, the most striking observation is the very fast growth of services imports from the EU to the Western Balkans and Turkey compared to those to the other two sub-regions. This has primarily been driven by Turkey, which accounts for almost two-thirds of the services imports for the sub-region it shares with the Western Balkans and saw its services imports from the EU increase by more than six times during the 2010–2019 period. The Eastern Partnership countries and the Southern Neighbourhood also recorded growth of services imports from the EU, although at slower rates (by 63.7 and 66.0 percent, respectively). The large EU increases are remarkable considering that the base level is higher compared to those of its peers and rivals. This might be a sign that there is also potential to work together more closely in this field as services tradability increases with digitalisation. In the case of the Eastern Partnership countries, services imports from the EU grew faster than

from the EU's peers and rivals. On the other hand, the highest growth rate in the Southern Neighbourhood was recorded for imports from Russia owing to high demand for imports in Algeria, Egypt and Israel.

Services imports from China increased the fastest in the Western Balkans and Turkey (70.9 percent), followed by the Southern Neighbourhood (56.9 percent). The US did not gain much importance as a source of imports, with the biggest increase in services imports being seen in the Eastern Partnership countries (39.4 percent).

The importance of Russia and Ukraine as exporters of selected commodities

One of the consequences of the war that Russia launched against Ukraine in February 2022 is how it is jeopardising global supplies of food and fuels.⁷ The two countries are global players in agri-food markets, collectively accounting for 53 percent of global trade in sunflower oil and seeds and 27 percent in wheat (UNCTAD 2022). This situation is especially alarming for developing nations, where sharply rising prices for energy and food will reduce real incomes and could increase the likelihood of civil unrest.

Here, we analyse which countries in the EU and its neighbourhood are most directly exposed to the changes in exports of food and fuel from Russia and Ukraine. We have selected the following commodity groups, for which the effects could be strongest:

- Cereals and cereal preparations
- Oil seeds, oleaginous fruits
- Fixed vegetable fats and oils
- Processed animal or vegetable oils, etc.
- Coal, coke and briquettes
- Petroleum and products
- Gas, natural and manufactured

Table 5 shows which countries have the highest shares of their imports of agricultural commodities coming from Russia and Ukraine.⁸ The countries of the Eastern Partnership appear the most vulnerable to the disruptions in supplies of food from Russia and Ukraine (see also Movchan 2022). Belarus, for example, imports more than 95 percent of its oil seeds from these two countries,

⁸ Due to data limitations, we use a two-digit level of disaggregation for the trade statistics, which might be insufficiently detailed to reveal vulnerabilities of countries with respect to individual products. For example, the cereals and cereal preparations sector includes – among other things – wheat, corn and rye, and the shares of the imports of these commodities from Russia and Ukraine can vary significantly.

⁷ A thorough analysis of Ukraine's role in the global food supply is provided in Movchan 2022.

TABLE 5 Russian and Ukrainian agri-food exports are important for EU neighbouring countries

SITC4 code	4		22		42		43	
	Cereals and cereal preparations		Oil seeds, oleaginous fruits		Fixed vegetable fats and oils		Processed animal or vegetable oils, etc.	
Russia	Armenia	87.3	Armenia	59.5	Armenia	88.6	Belarus	76.7
	Azerbaijan	78.1	Belarus	52.8	Georgia	78.4	Azerbaijan	64.3
	Georgia	77.1	Georgia	34.8	Belarus	72.2	Lithuania	55.8
	Belarus	59.7	Azerbaijan	29.9	Latvia	37.4	Armenia	50.1
	Turkey	49.9	Bulgaria	27.1	Turkey	37.3	Moldova	47.1
	Egypt	34.7			Azerbaijan	35.7		
	Albania	21.9			Lithuania	29.2		
					Serbia	25.5		
				Lebanon	22.1			
Ukraine	Moldova	32.0	Belarus	42.8	Russia	27.9	Moldova	49.6
	Lebanon	30.6	Georgia	33.4			Lebanon	40.2
	Egypt	25.3	Greece	24.3			Poland	30.1
			Estonia	21.4			Palestine	23.5
							Jordan	23.2
							Albania	20.7

Note: Shares of Russia and Ukraine in imports of selected food commodities in 2020, in percent. The cut-off value for showing countries in the table is 20 percent.

Source: UN COMTRADE. | © Bertelsmann Stiftung and wiwi.

which together also account for a similar share of Moldova's imports of animal or vegetable oils. The Southern Neighbourhood generally relies more heavily on imports of agricultural commodities from Ukraine rather than from Russia, and this is particularly the case for Jordan, Lebanon and Palestine. Interestingly, even several EU member states appear to import high shares of agricultural goods from Russia and Ukraine. This is the case for oil seeds destined for Bulgaria, Estonia and Greece as well as for fixed vegetable fats and oils headed to Latvia and Lithuania.

Russia is a critical source of energy imports for many countries in the EU and the EU's neighbourhood. The war in Ukraine threatens the stability of the energy supply in these countries, especially in ones that have high overall dependency on imports to meet their energy needs. In the EU, the dependency rate was equal to 61 percent in 2019, which means that more than half of the EU's energy needs were met by net imports. According to Eurostat, this rate ranges from over 90 percent in Cyprus, Luxembourg and Malta to 5 percent in Estonia. Slovakia has a dependency rate of 70 percent and practically all imported gas comes from Russia, making the country very vulnerable to gas supply disruptions (see Table 6). Among the non-EU countries considered here, Armenia, Belarus, North Macedonia and Serbia are the most dependent on imports of Russian gas.

Russia accounts for the highest shares of coal imported by Georgia, Moldova and Morocco. With petroleum products, the highest shares of imports from Russia were recorded in Armenia, Belarus and Slovakia.

TABLE 6 **Russia is of great importance for the energy supply of EU neighbouring countries**

SITC4 code 32		SITC4 code 33		SITC4 code 34	
Coal, coke and briquettes		Petroleum and products		Gas, natural and manufactured	
Georgia	90.2	Belarus	86.8	Belarus	99.8
Moldova	89.8	Slovak Republic	65.5	Slovak Republic	98.5
Morocco	81.3	Armenia	62.8	Estonia	88.6
Bulgaria	80.0	Lithuania	57.6	Armenia	84.1
Azerbaijan	72.1	Poland	57.4	Latvia	80.9
Lebanon	70.6	Finland	57.0	Czechia	70.7
Belarus	69.0	Bulgaria	50.1	North Macedonia	68.4
Greece	67.8	Estonia	46.3	Serbia	68.1
Armenia	65.3	Hungary	45.2	Bosnia and Herzegovina	65.5
Poland	61.0	Turkey	40.0	Germany	65.0
Ukraine	60.7	Romania	31.9	Finland	64.4
Croatia	51.8	Ukraine	30.4	Bulgaria	63.6
Turkey	42.3	Serbia	26.7	Poland	63.0
Lithuania	40.2	Azerbaijan	26.3	Greece	48.9
Jordan	39.9	Georgia	24.8	Romania	46.8
Cyprus	38.8	Czechia	24.6	Italy	41.3
Romania	38.6	Greece	24.5	Hungary	38.4
Italy	38.2	Germany	24.0	Lithuania	33.7
Finland	37.6			Slovenia	32.9
Latvia	37.2			Cyprus	25.4
Netherlands	35.7				
Germany	31.3				
Denmark	30.7				
Egypt	30.0				
Spain	29.6				
Belgium	23.9				
Slovak Republic	20.2				

Note: Russia's shares in imports of fuel in 2020, in percent.
Source: UN Comtrade. | © Bertelsmann Stiftung and wiw.

IV.7 Trade complementarity

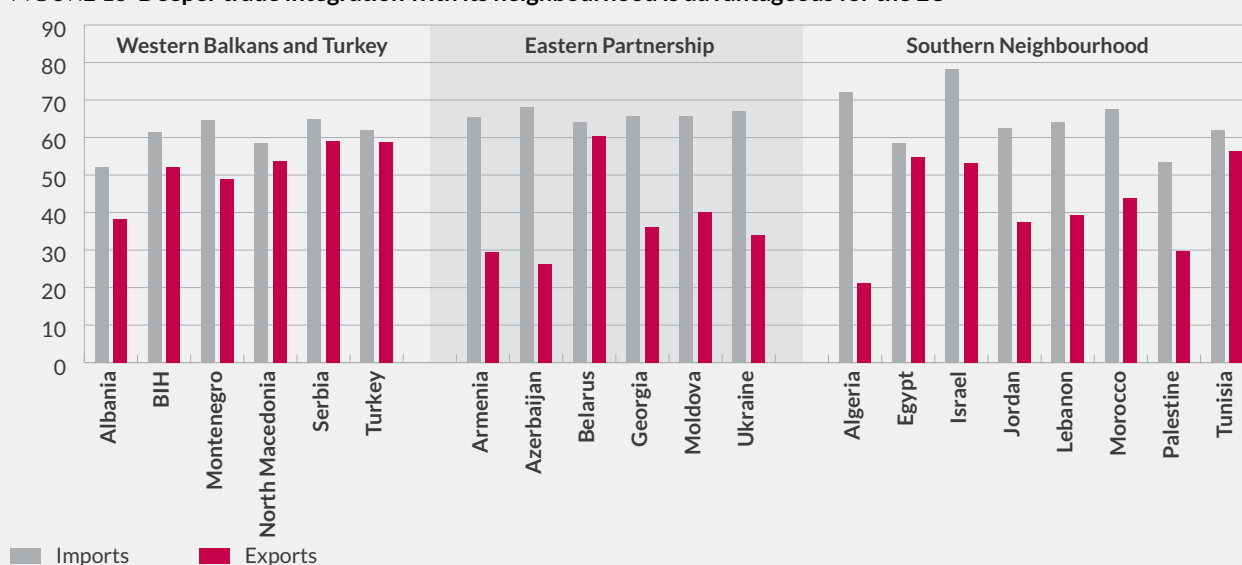
One way to assess the potential advantages of fostering (deeper) trade integration of the EU's neighbouring countries with the EU and its global peers and rivals is to calculate the so-called Trade Complementarity Index (TCI). A TCI ranges from 0 to 100 and indicates the extent to which the export profile of a country matches the import profile of its trading partner. A TCI value of 100 corresponds to perfect trade complementarity, and vice versa. An export-side TCI of 100 means that the neighbouring country exports exactly what the EU (or the global peer/rival) imports. Conversely, an import-side TCI of 100 means that the neighbouring country imports exactly what the EU (or the global peer/rival) exports. In general, a high value of the export-side TCI would suggest that the neighbouring country is likely to gain from increased trade with the EU (or the global peer/rival), while a high value of the import-side TCI would suggest trade gains for the EU (or the global peer/rival).

The TCIs of neighbouring countries with the EU are presented in Figure 15. Here, one can first see marked

differences between the three sub-regions: while import-side TCIs are broadly similar across the countries, this is not the case with export-side TCIs. In the Western Balkans and Turkey, export-side TCIs are much higher than they are in the Southern Neighbourhood and, particularly, in the Eastern Partnership countries (except Belarus). Consequently, the overall trade complementarity of the Western Balkans and Turkey with the EU is also higher, which indicates a greater potential for trade integration.

Second, the import-side TCIs of neighbouring countries are everywhere higher than the export-side TCIs, which indicates a stronger reliance of neighbouring countries on the EU rather than vice versa. Intuitively, this makes sense, as the EU is a very big and advanced economy exporting a wide range of largely sophisticated goods, which each neighbouring country imports. One would therefore expect a good match between the export profile of the EU and the import profiles of its neighbouring countries, whereas the match between the export profiles of neighbouring countries and the import profile of the EU must be worse. The reason is that most neighbouring countries have small or very small economies specialising in a narrow range of

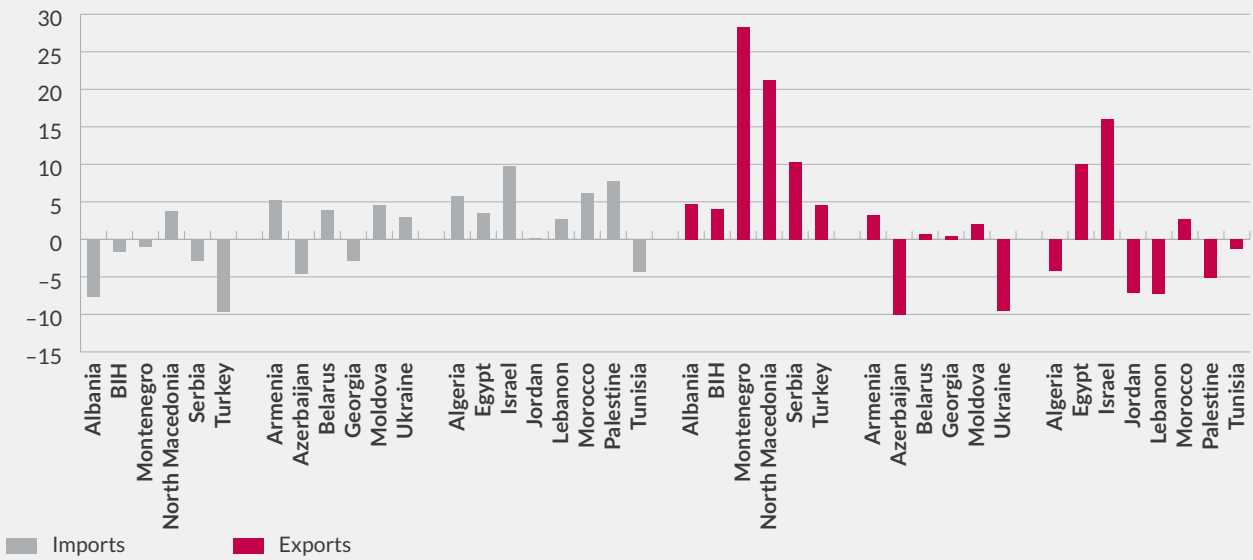
FIGURE 15 Deeper trade integration with its neighbourhood is advantageous for the EU



Notes: Trade Complementarity Index (TCI) of the EU's neighbouring countries in 2019. For Albania, Belarus, Jordan, Lebanon, Moldova, Montenegro, Morocco, Palestine and Ukraine, data from 2018; for Algeria and Tunisia, from 2017. Data unavailable for Kosovo, Libya and Syria. 0 = no trade complementarity with the EU; 100 = full trade complementarity with the EU.

Source: WITS-COMTRADE. | © Bertelsmann Stiftung and wiw.

FIGURE 16 Exports of Western Balkan countries and Turkey have become increasingly complimentary with EU imports



Notes: Change in TCI with the EU, 2007–2019. For Albania, Belarus, Jordan, Lebanon, Montenegro, Moldova, Morocco, Palestine and Ukraine, data from 2007–2018; for Algeria and Tunisia, from 2007–2017. Data unavailable for Kosovo, Libya and Syria. Positive values = increased trade complementarity with the EU; negative values = reduced trade complementarity with the EU.
Source: WITS-COMTRADE. | © Bertelsmann Stiftung and wiiw.

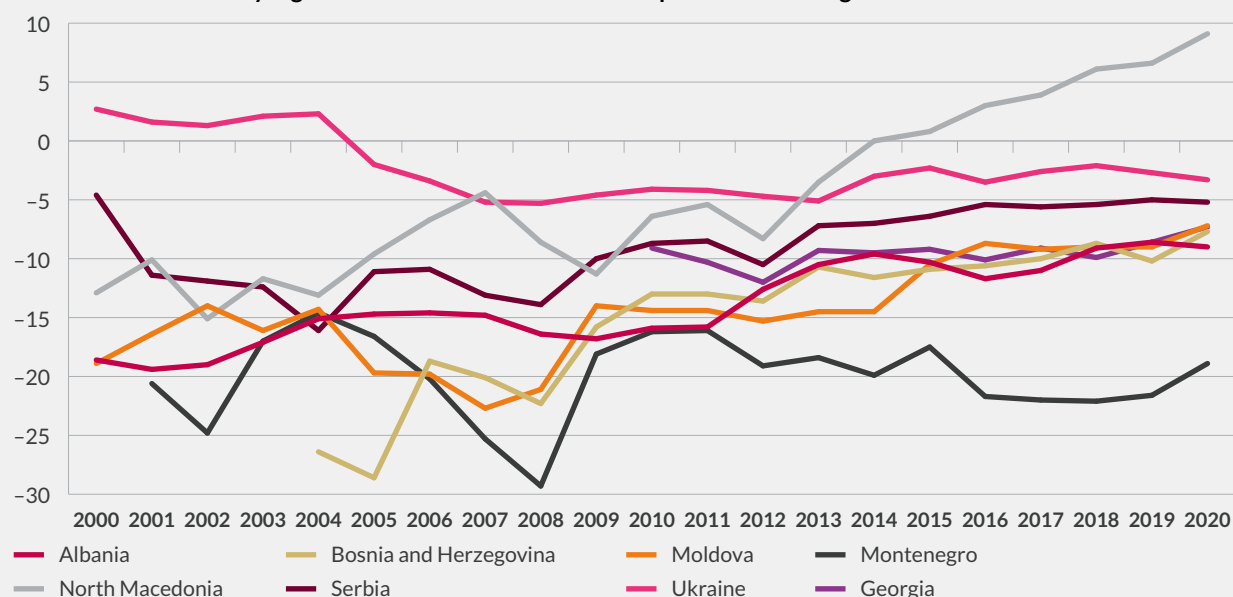
rather unsophisticated commodities. In contrast, the EU’s import profile is much more diversified and features a large share of sophisticated imports from other advanced economies, such as the US, Japan and countries in Southeast Asia (representing the so-called “intra-industry trade”).

Figure 16 demonstrates that the relatively more beneficial position of the Western Balkans and Turkey (compared to other sub-regions of the EU’s neighbourhood) vis-à-vis the EU has been the result of favourable developments over several years. Most of the countries in this sub-region have recorded declines in import-side TCIs with the EU, whereas export-side TCIs have conversely gone up – in some cases quite impressively, such as in Montenegro and North Macedonia. By contrast, in most Eastern Partnership and Southern Neighbourhood countries, import-side TCIs have increased (while the dynamics of export-side TCIs have been mixed). In some cases, this has taken place against the backdrop of a decline in overall trade complementarity – most notably in Azerbaijan, Jordan, Lebanon and Ukraine. The important exceptions to this are Israel and, to a lesser extent, Egypt, which have recorded increases in trade

complementarity with the EU, especially on the export side (Figure 16).

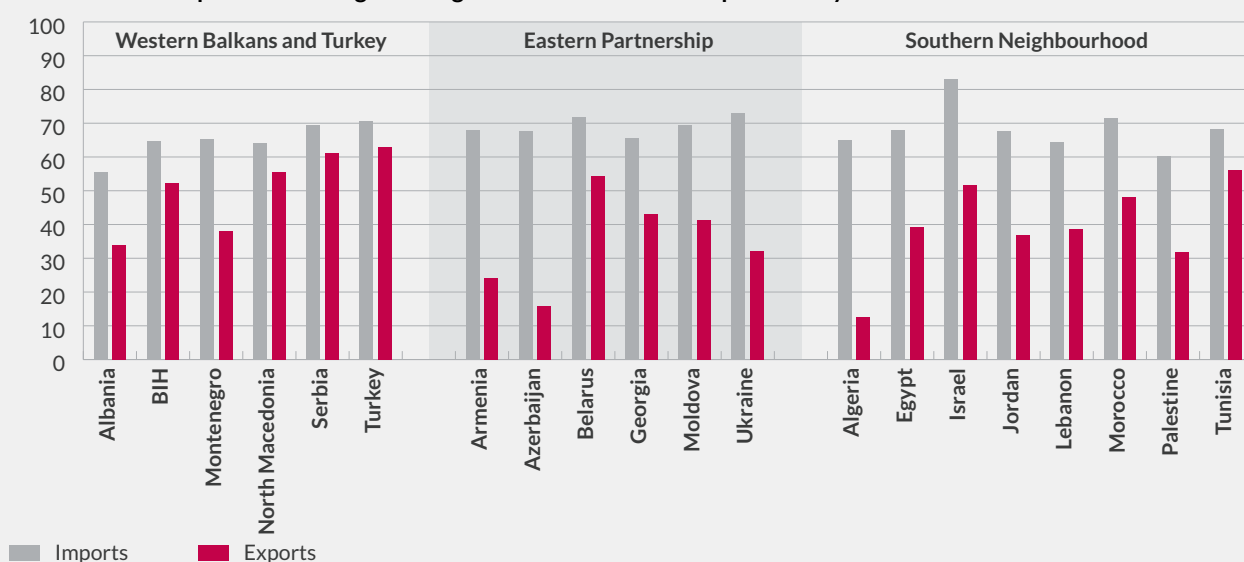
The above finding – namely, that import-side TCIs tend to be higher than those on the export side – squares well with observed trade developments. Even those countries with an SAA or DCFTA – and even after many years – mostly continue to run big trade deficits with the EU (Figure 17). The very clear exception to this is North Macedonia, where there has been a marked improvement in the trade balance with the EU in recent years due to strong exports in the automotive sector. This has only been possible thanks to sizeable inflows of FDI from Western Europe into the North Macedonian automotive sector in recent years. However, it is unclear how sustainable this development is, as catalytic converters – which are not needed for electric cars – make up most of the country’s exports. In other countries, where “deep” free trade arrangements failed to trigger sufficient FDI inflows, trade balances remained in the red. And even in North Macedonia, it took more than a decade after the SAA came into force for its trade deficit with the EU to switch into a surplus.

FIGURE 17 Persistently high deficits in trade with the EU despite free trade regimes



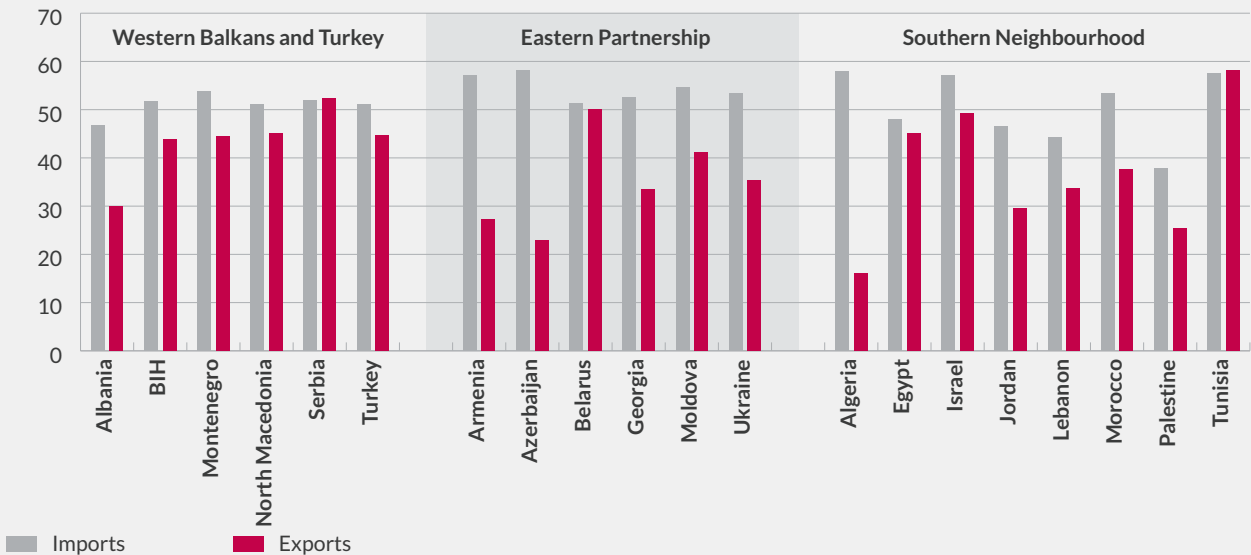
Note: Merchandise trade balance with the EU as a percentage of GDP; year of SAA or DCFTA coming into force = 0.
Sources: wiiw, national sources. | © Bertelsmann Stiftung and wiiw.

FIGURE 18 US exports to EU neighbouring countries are more complementary than vice versa



Notes: Trade Complementarity Index (TCI) with the US in 2019. Data from 2018 for Albania, Belarus, Jordan, Lebanon, Montenegro, Moldova, Morocco, Palestine and Ukraine; from 2017 for Algeria and Tunisia. Data unavailable for Kosovo, Libya and Syria. 0 = no trade complementarity; 100 = full trade complementarity.
Source: WITS-COMTRADE. | © Bertelsmann Stiftung and wiiw.

FIGURE 19 Chinese goods are already quite complementary to EU neighbouring countries' export profiles



Notes: Trade Complementarity Index (TCI) with China in 2018. Data from 2017 for Algeria and Tunisia. Data unavailable for Kosovo, Libya and Syria. 0 = no trade complementarity; 100 = full trade complementarity.
Source: WITS-COMTRADE. | © Bertelsmann Stiftung and wiiw.

Similar conclusions could be drawn regarding the benefits of (deeper) trade integration of the EU's neighbouring countries with the US and, to a lesser extent, China. As with the EU, TCIs of neighbourhood countries with the US (Figure 18) and China (Figure 19) tend to be higher on the import side than on the export side, which suggests greater benefits of trade integration for the US and China than for the EU's neighbouring countries.

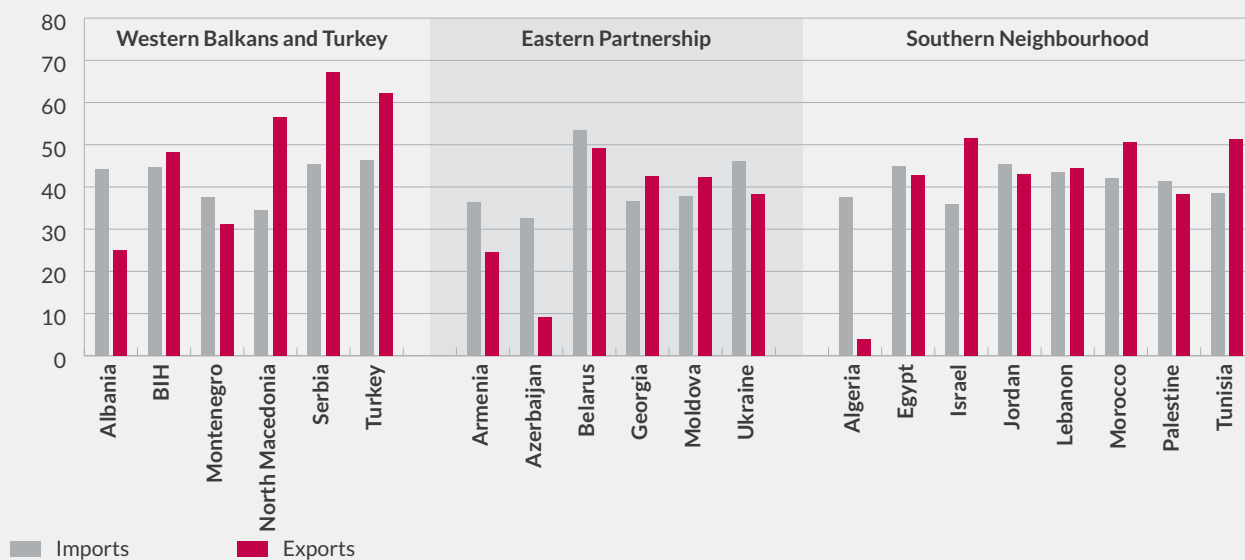
However, the pattern that emerges with respect to Russia (Figure 20) is very different. Outside the Eastern Partnership sub-region, import-side TCIs of the EU's neighbouring countries with Russia are generally lower than export-side TCIs. The same holds true for two Eastern Partnership countries: Georgia and Moldova. This should not come as a surprise, given that Russia's export specialisation is much more narrow and less advanced than those of the EU, the US and China.

To conclude, there are pronounced asymmetries in trade complementarity of neighbouring countries with the EU (as well as with the US and China), and this tends to be higher on the import side than on the export side. This

suggests that deeper trade integration of neighbouring countries with the EU would likely benefit the latter relatively more than the former, which is also confirmed by the persistent trade deficits of many neighbouring countries with the EU. Furthermore, it implies that the EU's current model of trade integration with its neighbours does not fundamentally improve the competitiveness of these countries and, at worst, reinforces a subservient trading relationship. The neighbouring countries export lower-value products to the EU and import higher-value products from the bloc. Furthermore, large numbers of citizens migrate from the neighbouring countries to the EU and then send remittances back to their home countries, which are then used to finance a large part of the trade deficits (for more on this, see Chapter VIII of this report).

By contrast, deeper trade integration of most of the EU's neighbouring countries with Russia would likely benefit them relatively more than Russia. This may be of relevance in countries like Moldova and Serbia, where Russia's influence is already quite strong and where it can potentially use the "carrot" of integration advantages in shaping its foreign policy with respect to these countries.

FIGURE 20 Deeper trade integration with Russia is advantageous for the EU neighbourhood



Notes: Trade Complementarity Index (TCI) with Russia in 2018. Data from 2017 for Algeria and Tunisia. Data unavailable for Kosovo, Libya and Syria. 0 = no trade complementarity; 100 = full trade complementarity.
 Source: WITS-COMTRADE. | © Bertelsmann Stiftung and wiw.

V. Finance

This chapter analyses financial interconnectivity with a focus on foreign direct investment (FDI), cross-border banking flows, remittances and budget support.

The EU plays an important role in many of its neighbouring countries, with the linkages being the strongest with the Western Balkans and Turkey. The EU is the main source of FDI for most countries in the region. The US only has a significant presence in Algeria and Israel, whereas Russia accounts for relatively high shares of the inward FDI stock in several countries of the Eastern Partnership, namely, Armenia, Belarus and Moldova. To date, China has not played a serious role as a source of FDI in the region, as its primary modus operandi in the region has traditionally been via debt financing of investment projects in the framework of its Belt and Road Initiative.

EU banks are the main foreign lenders in many countries of the region: in Albania, Montenegro, North Macedonia and Serbia in the Western Balkans; in Belarus, Georgia, Moldova and Ukraine in the Eastern Partnership countries; and in Morocco, Palestine, Syria and Tunisia in the Southern Neighbourhood. This points to high interconnectivity between the banking sectors of the region and the EU. Among the EU's peers and rivals, only US banks compete with EU banks in the region – mostly in the Southern Neighbourhood (Algeria, Egypt, Israel, Jordan and Lebanon) as well as in Ukraine.

The EU is the major source of remittances to the Western Balkans and Turkey sub-region, accounting for up to 86 percent of total remittances inflows in the case of Albania. At the same time, the share of remittances in GDP has been decreasing in all countries of the sub-region except Montenegro. In the Eastern Partnership countries, the

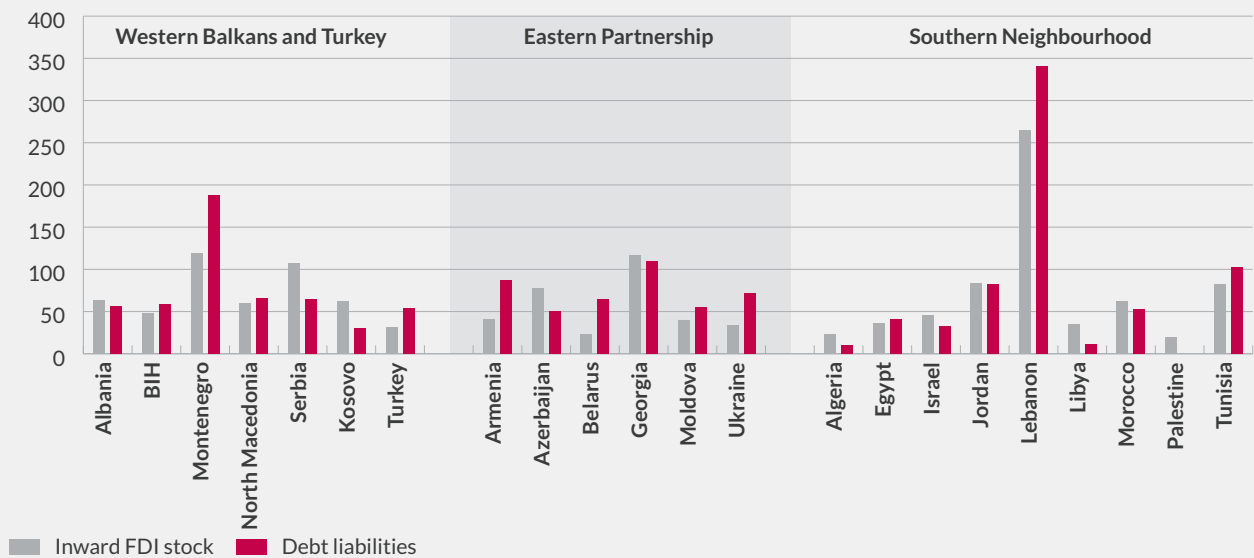
EU is only a significant source of remittances to Ukraine and Moldova, while Russia dominates as a destination for labour migrants from other countries and, predictably, accounts for the lion's share of remittances. In the Southern Neighbourhood, the EU is the major source of remittances to Algeria, Morocco and Tunisia, which were former colonies of France and consequently developed strong economic and cultural ties with it. The US only represents a serious competitor to the EU as a source of remittances to Israel, where the former accounts for 41 percent of all remittances inflows.

The EU is one of the world's top providers of budget support, which has become an important type of connectivity. This kind of connectivity promotes reform efforts by the EU partners by tying the financial transfers to performance, thereby enabling a strengthening of durable connectivity with the EU's neighbouring sub-regions. Total (consumed) budget support to the EU's neighbouring sub-regions amounted to €4.1 billion in 2020. The Western Balkans and Turkey sub-region is the most important destination of EU budget support, accounting for 45 percent of total EU budget support in the region in 2020. Turkey is the single largest recipient of budget support in terms of volume (24 percent).

V.1 FDI stock and debt

In this part, we concentrate on the investment and financial linkages between the countries. First, we explore the importance of linkages created through FDI and external debt. As Figure 21 shows, FDI plays the most important role in the economies of Georgia, Lebanon, Montenegro and Serbia, in all of which its stock is higher than annual GDP.

FIGURE 21 Role of FDI and external debt in the economies of EU neighbourhood countries varies significantly



Note: Inward FDI stock and external debt liabilities in 2020, as a share of GDP, in percent. Lebanon: FDI = 265 percent of GDP; debt liabilities = 341 percent of GDP. Data unavailable for Syria.

Sources: wiiw FDI Database, UNCTAD, WDI, own calculations, and the External Wealth of Nations database (based on Lane and Milesi-Ferretti 2018).

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Lebanon is a special case, as its GDP plummeted from close to \$51 billion in 2019 to about \$26 billion in 2020, which was the highest contraction in a list of 193 countries. Thus, the high share of the FDI stock (as well as external debt) is driven largely by the decrease of the base of comparison. Georgia has been performing exceptionally well in attracting FDI, mostly owing to its favourable investment climate; the country was recently ranked the 7th-easiest country to do business in (World Bank 2020) and the 12th-easiest in the Index of Economic Freedom ranking (Heritage Foundation 2021). Montenegro was able to accumulate a high volume of FDI relative to the size of its economy owing to projects in the tourism sector that required substantial investment relative to the country's GDP. In Tunisia, inward FDI stock accounts for 82 percent of GDP, which is the fifth-highest value in the region. FDI plays the least important role in Palestine (21 percent of GDP), Algeria and Belarus (around 23 percent of GDP in each), followed by Turkey and Ukraine (32 and 33 percent of GDP, respectively). The average ratio of FDI to GDP in the region is 67 percent.

Turning to external debt liabilities, we can see that several countries in the EU neighbourhood rely heavily on the bloc as a source of financing. Apart from Lebanon (discussed above), a high reliance on debt is especially striking in the case of Montenegro, where external debt liabilities accounted for more than 180 percent of GDP in 2020 due to the country's participation in China's Belt and Road Initiative. Georgia and Tunisia are two other countries in the EU neighbourhood that have external debt liabilities exceeding their GDP. Most countries in the Western Balkans and Turkey and the Eastern Partnership rely more on external debt than FDI as a source of finance. The differences are most noticeable in Armenia, Belarus, Montenegro, Turkey and Ukraine. In the Southern Neighbourhood, only Egypt and Tunisia have external debt liabilities that are higher than their inward FDI stock.

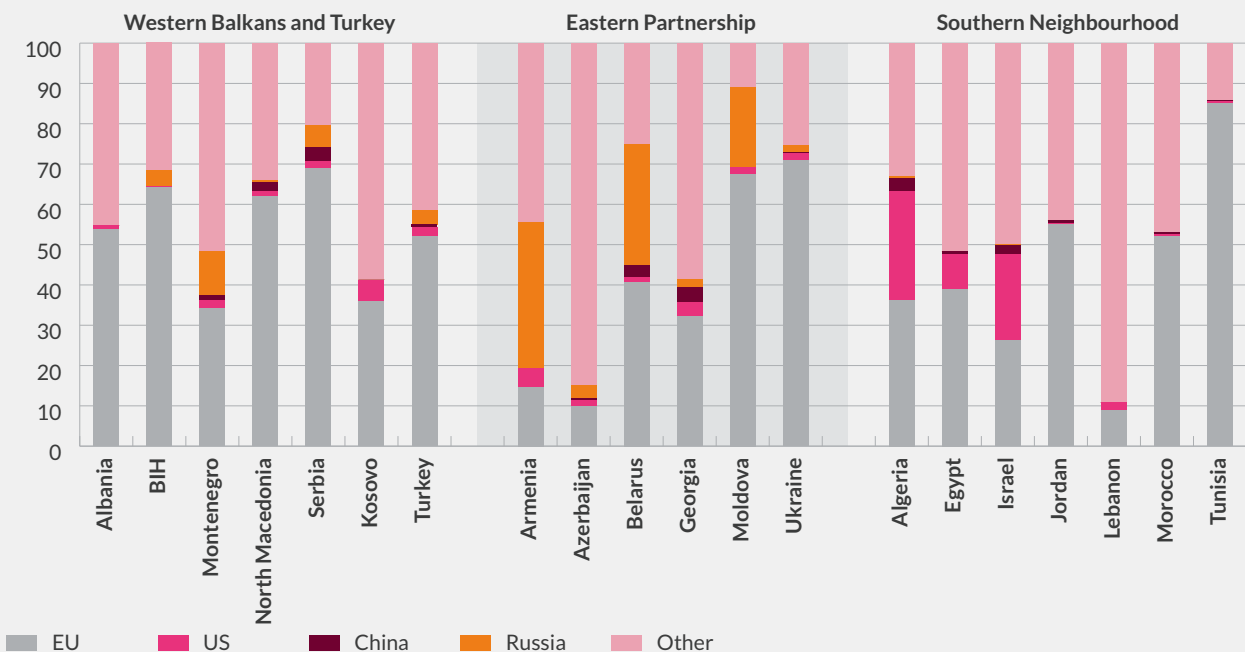
V.2 Inward FDI structure: breakdown by industry

The EU accounts for the lion’s share of inward FDI in Turkey and most Western Balkan countries (see Figure 22), except for in Montenegro and Kosovo, where it accounts for about one-third of accumulated FDI. Ukraine and Moldova stand out in the Eastern Partnership as countries where the EU is by far the most important foreign investor, accounting for 71 and 67 percent of inward FDI stock in 2020, respectively. In Belarus and Georgia, the EU is also an important investor (41 and 32 percent of inward FDI stock, respectively), while investment in Armenia and Azerbaijan has hardly been significant. In the Southern Neighbourhood, the EU plays a significant role as a source of FDI in Tunisia (85 percent of inward FDI stock in 2020) as well as in Jordan and Morocco (55 and 52 percent, respectively). In Israel and Lebanon, the presence of the EU investors remains limited.

For the most part, the EU’s peers and rivals are not very active in the region when it comes to FDI. The US only appears to have a significant presence as a source of FDI in Algeria and Israel, while its share in inward FDI stock is rather low in other countries. Russia only has relatively high shares in the inward FDI stock in several countries of the Eastern Partnership, namely, Armenia, Belarus and Moldova. Several other countries are important investors in the region, including Canada, the UK, Switzerland and economies of the Persian Gulf. China has yet to play a serious role as a source of FDI in the region, as its primary modus operandi in the region has traditionally been via other financing instruments in the framework of its Belt and Road Initiative, as discussed below.

If we look at the importance of the sub-regions for FDI from the perspective of the EU and its peers and rivals, it appears that the EU’s Southern Neighbourhood is the most important FDI destination in the region for the EU as well as for the US and China (see Figure 23). Almost 90 percent

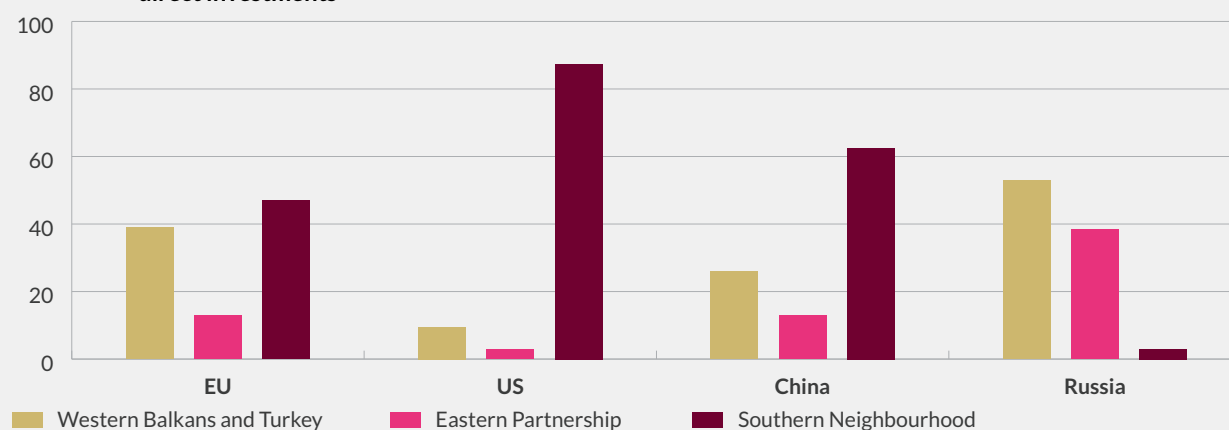
FIGURE 22 The EU accounts for high shares of FDI in most of its neighbouring countries



Note: Geographic structure of inward FDI stock in 2020, in percent. Israel, Jordan, Lebanon and Montenegro have big shares of unallocated FDI stocks. Data unavailable for Libya, Palestine and Syria.

Sources: wiiw FDI database, national banks, European Commission, IMF. | © Bertelsmann Stiftung and wiiw.

FIGURE 23 Within the EU neighbourhood, China and the US focus on the Southern Neighbourhood for their foreign direct investments



Note: Shares of the neighbourhood sub-regions in total outward FDI to the EU neighbourhood in 2020, in percent.
Sources: wiiw, FDI database, national banks, European Commission, IMF. | © Bertelsmann Stiftung and wiiw.

of FDI flowing from the US into the region is directed to the Southern Neighbourhood. The Western Balkans and Turkey account for the highest share in Russia's FDI into the region (more than 50 percent), while this is the second-biggest sub-region for the EU (39 percent). The Eastern Partnership is relatively important only for Russia, though the latter's investment is only concentrated in two countries of this sub-region, namely, Armenia and Belarus.

Zooming in on FDI stock in the region coming from the EU (Figure 24), it becomes clear that Turkey is the most important investment destination for the EU, accounting for 27 percent of total FDI stock from the EU in the region in 2020. In the Western Balkans and Turkey sub-region, Serbia is the only other country with a significant share in the EU's FDI (7 percent); together with Turkey, they account for about 88 percent of the EU's FDI in the sub-region. Egypt and Israel are the second- and third-biggest destinations for the EU's FDI in the EU neighbourhood region, with the shares being about 12 percent for each. Morocco takes fourth place, with 9 percent. Ukraine is the fifth-biggest destination for EU investors, lagging only slightly behind Morocco. In the sub-region of the Eastern Partnership countries, Ukraine is the main destination for FDI from the EU, accounting for almost two-thirds of the outward FDI into the sub-region.

The changes in the total inward FDI stock in the EU neighbourhood show that the role of China has been increasing in all three sub-regions (Figure 25). This was most pronounced in the Western Balkans and Turkey, where the neighbouring countries' inward stock of FDI originating in China increased by more than 30 times between 2013 and 2020 (albeit from a very low base level of \$84 million).⁹ The inward stock of FDI from the EU, in contrast, grew sluggishly in the Western Balkans and Turkey and in the Eastern Partnership countries. In fact, it was only in the Southern Neighbourhood that the EU was increasing its investment on par with China until 2019; in 2020, there was a major slump in inward FDI stock from the EU in the sub-region, likely due to pandemic-related effects. In the Eastern Partnership countries, the trend for inward FDI stock was mainly driven by Ukraine, which accounted for about 40 percent of total inward FDI stock in the sub-region in 2020. Inward FDI stock in the country experienced a significant slump in 2014 with Russia's annexation of Crimea and the onset of the military conflict in the Donbas region. Inward FDI stock of Russian origin in Ukraine plummeted in the 2014–2020 period, by almost 80 percent. In contrast, Azerbaijan, which accounts for the second-biggest share of the inward FDI stock in the sub-region (26 percent in 2020),

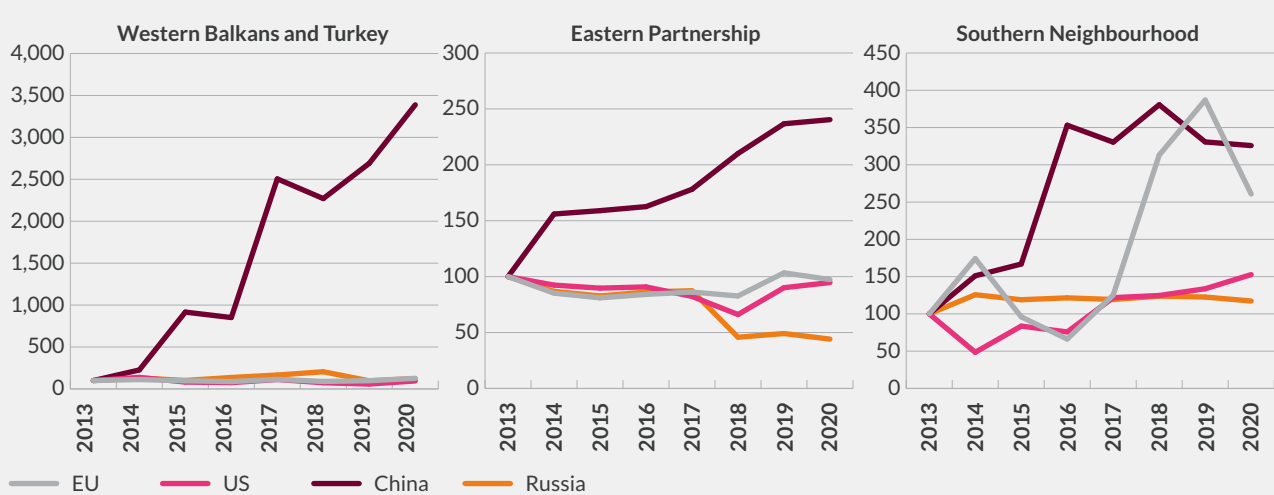
⁹ Here, we use data for the period starting from 2013, as data on the structure of FDI stock are missing for many countries in the sub-region for earlier years.

FIGURE 24 Turkey is the most important destination for the EU's FDI in the EU neighbourhood



Note: Stock of outward FDI of the EU in 2020, shares in total outward FDI to the EU's neighbouring countries, in percent. Data unavailable for Syria. Source: wiiw FDI database, national banks, European Commission, IMF. | © Bertelsmann Stiftung and wiiw.

FIGURE 25 China has been strongly increasing its FDI in the EU neighbourhood, albeit from a very low base

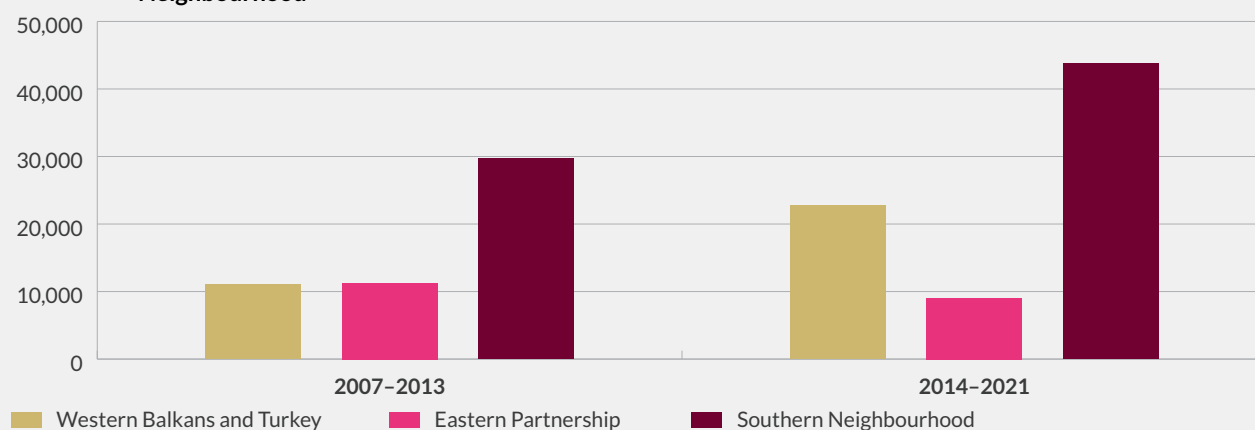


Note: Indices of FDI inward stock from the EU and its peers and rivals, 2013 = 100. Sources: wiiw FDI database, national banks, European Commission, IMF. | © Bertelsmann Stiftung and wiiw.

saw a steady increase in its inward FDI stock during this same period. As a result, in 2020, the stock of Russian FDI in Azerbaijan exceeded that in Ukraine (\$1.0 billion and \$900 million, respectively).

China tends to use debt rather than FDI to finance its investment projects abroad within the framework of its Belt and Road Initiative (BRI). Figure 26 shows the value of China's overseas investment via debt and other instruments.

FIGURE 26 China makes most of its EU neighbourhood debt-financed investments in the EU's Southern Neighbourhood



Note: Value of China's overseas investment via debt and other instruments (including the Belt and Road Initiative), in USD m.

Source: China Global Investment Tracker dataset (www.aei.org/china-global-investment-tracker/). | © Bertelsmann Stiftung and wiw.

Between 2014 and 2021, the value of Chinese investment in the region exceeded \$127 billion, which is more than 10 times higher than the value of its FDI stock there. The bulk of China's investment projects are concentrated in the Southern Neighbourhood, where the value of its investments increased by 48 percent in the 2014–2021 period as compared to the 2007–2013 period. Egypt and Israel were the primary destinations of investment, accounting for 40 and 29.6 percent, respectively, of the total investment value in the Southern Neighbourhood between 2014 and 2021.

The Western Balkans and Turkey increased their significance for China as investment destinations during the same period, with the value of investments in the sub-region more than doubling compared to the 2007–2013 period. Most of the investment between 2014 and 2021 went to Serbia, which accounted for 62.8 percent of China's investment in the sub-region. Turkey lost its relative importance as a destination for Chinese investment, as its share decreased from 79.2 percent during the 2007–2013 period to 24.7 percent during the 2014–2021 period. This reveals a striking change in China's investment policy in Southeast Europe over the last 15 years, with a sharp redirection from Turkey to Serbia.

The Eastern Partnership remains rather unattractive to Chinese investors, as evidenced by a decrease in the value of investment there during the 2014–2021 period as compared with the 2007–2013 period. This may well have been at least partly influenced by the annexation of Crimea and the onset of the military conflict in the Donbas region in 2014.

To understand which sectors in the EU neighbourhood might have potential for future FDI, we analyse which sectors have attracted the most greenfield investment in the last 15 years. Greenfield investment is a form of FDI in which a parent company starts a new venture in a foreign country by constructing new operational facilities from the ground up. For our analysis, we use the fDi Markets dataset, which contains information on the value of announced greenfield projects.¹⁰ We analyse EU greenfield investment in the three sub-regions, cumulatively for the two periods of 2007–2013 and 2014–2021 (Table 7). A common trend for all three sub-regions is a high share of the renewable energy sector in greenfield investment projects, which increased significantly in Southern Neighbourhood and Eastern Partnership countries in the latter period. The real estate sector, in contrast, was attractive to EU investors between 2007 and 2013, but it subsequently lost its attractiveness.

¹⁰ A more detailed breakdown of foreign ownership of strategically important infrastructure, using the same dataset, is provided in Chapter VI.

TABLE 7 Energy is the focus of the EU's greenfield investments in the EU neighbourhood

	The Western Balkans and Turkey		Eastern Partnership countries		Southern Neighbourhood	
	2007–2013	2014–2021	2007–2013	2014–2021	2007–2013	2014–2021
Aerospace	0.3	0.2	0.0	0.3	0.8	0.5
Automotive components	2.5	8.0	0.1	4.6	0.5	2.3
Automotive OEMs	8.4	7.0	2.2	0.8	2.5	6.3
Building materials	4.4	1.2	5.1	1.9	8.3	0.7
Business services	0.6	0.8	0.7	2.6	2.5	2.6
Chemicals	1.3	3.9	1.3	0.7	8.0	14.9
Coal, oil and gas	21.6	6.2	5.5	2.5	23.5	29.1
Communications	1.3	4.6	5.0	2.5	3.7	1.2
Consumer products	3.3	8.7	2.1	11.1	0.7	0.7
Financial services	3.7	1.1	12.3	1.8	2.3	1.0
Food and beverages	7.1	7.7	9.7	10.8	2.9	2.1
Hotels and tourism	0.9	3.1	2.7	0.0	9.7	4.3
Industrial equipment	1.2	2.6	2.2	2.0	1.1	0.6
Metals	2.6	2.7	1.6	0.5	2.8	0.6
Pharmaceuticals	0.6	0.9	0.1	0.3	0.6	0.3
Real estate	17.3	9.4	19.7	3.0	14.2	1.4
Renewable energy	16.5	16.6	11.8	18.4	6.5	18.3
Software and IT services	1.2	4.8	1.7	5.8	1.6	1.9
Textiles	1.8	4.4	2.3	4.6	1.8	0.9
Transportation and warehousing	2.6	6.1	5.3	10.7	3.4	7.8
Other	0.6	0.0	8.6	15.0	2.6	2.7

Note: Sector structure of EU capital investment of greenfield projects, cumulatively, in percent. We selected 6 percent as the cut-off value for displaying numbers in bold.
 Source: fDi Markets dataset, wiiw calculations. | © Bertelsmann Stiftung and wiiw.

The Southern Neighbourhood sub-region stands out owing to its high share of coal, oil and gas in greenfield investment projects. In the Western Balkans and Turkey, the sector was important to EU investors during the 2007–2013 period, but its share fell noticeably between 2014 and 2021.

Consumer goods, food and beverages as well as transportation and warehousing account for relatively high shares in greenfield investment from the EU in the Western Balkans, Turkey and the Eastern Partnership countries, but not in the Southern Neighbourhood. The Western Balkan countries and Turkey have also attracted significant amounts of investment for automotive components and automotive original equipment manufacturers (OEMs)

as the sub-region has been increasingly integrated into the supply chains of the European automotive sector. The Eastern Partnership countries had a double-digit share of financial services in greenfield investment during the 2007–2013 period, but the sector did not attract much investment after that. Instead, the sub-region started to attract more investment in software and IT services; between 2014 and 2021, the share of this sector in greenfield investment from the EU was the highest among the three sub-regions.

V.3 Existence of bilateral investment treaties (BITs)

Table 8 shows whether there is a legal framework for FDI between the EU, China, Russia, the US and the EU's neighbouring countries. The EU has been more active than its peers and rivals when it comes to formalising its bilateral investment relations with its neighbourhood countries, as it has concluded bilateral investment treaties (BITs) with all its neighbouring countries apart from Kosovo and Palestine. China has concluded 13 BITs in the region, the majority of which are with Southern Neighbourhood countries. The US has been the most active in terms of concluding BITs in the EU's Eastern Neighbourhood, where it has investment agreements with all the countries of the sub-region apart from Belarus. Russia has the lowest number of BITs (10) among the EU's peers and rivals. Tunisia has concluded BITs with China, the EU and the US, while Ukraine has active BITs with China, the EU and Russia.

V.4 Effectiveness of BITs and barriers to investment

Although most of countries in the region have concluded numerous BITs, they vary greatly in terms of the degree of their investment liberalisation. Figure 27 shows the index of FDI restrictiveness as estimated by the OECD. Indices take values from 0 to 1, with 1 indicating the highest barriers to FDI (market completely closed to foreign direct investors) and 0 indicating a fully liberalised market. The Western Balkans, Turkey and the countries of the Eastern Partnership have rather liberal investment regimes. In contrast, many countries in the Southern Neighbourhood have much higher barriers to FDI, with Libya being the most closed economy in the sub-region, followed by Palestine.

V.5 Banking sector assets

The EU and its peers and rivals have also established linkages with the EU's neighbouring countries via the banking sector. Figure 28 shows shares of EU and its peers' and rivals' banks in the total foreign assets of the banking sector in 2020. Russia and China are absent from the figure because there are no data on them. EU banks are the main foreign banks in many countries of the region:

TABLE 8 The EU has concluded many bilateral investment treaties (BITs) with neighbourhood countries

	EU	US	China	Russia
Albania	X	X	X	X
Bosnia and Herzegovina	X		X	
Montenegro	X			
North Macedonia	X		X	X
Serbia	X		X	
Kosovo	n/a	n/a	n/a	n/a
Turkey	X	X		X
Armenia	X	X		X
Azerbaijan	X	X	X	
Belarus	X			
Georgia	X	X	X	
Moldova	X	X		X
Ukraine	X	X		X
Algeria	X		X	
Egypt	X	X	X	X
Israel	X		X	
Jordan	X	X		
Lebanon	X		X	X
Libya	X			X
Morocco	X	X	X	
Palestine	*			X
Syria	X		X	X
Tunisia	X	X	X	

Note: An "X" indicates the existence of a bilateral investment treaty (BIT) between the pairs of countries or blocs. * Palestine concluded a BIT with Germany in 2000, which entered into force in 2008.

Source: UNCTAD. | © Bertelsmann Stiftung and wiiw.

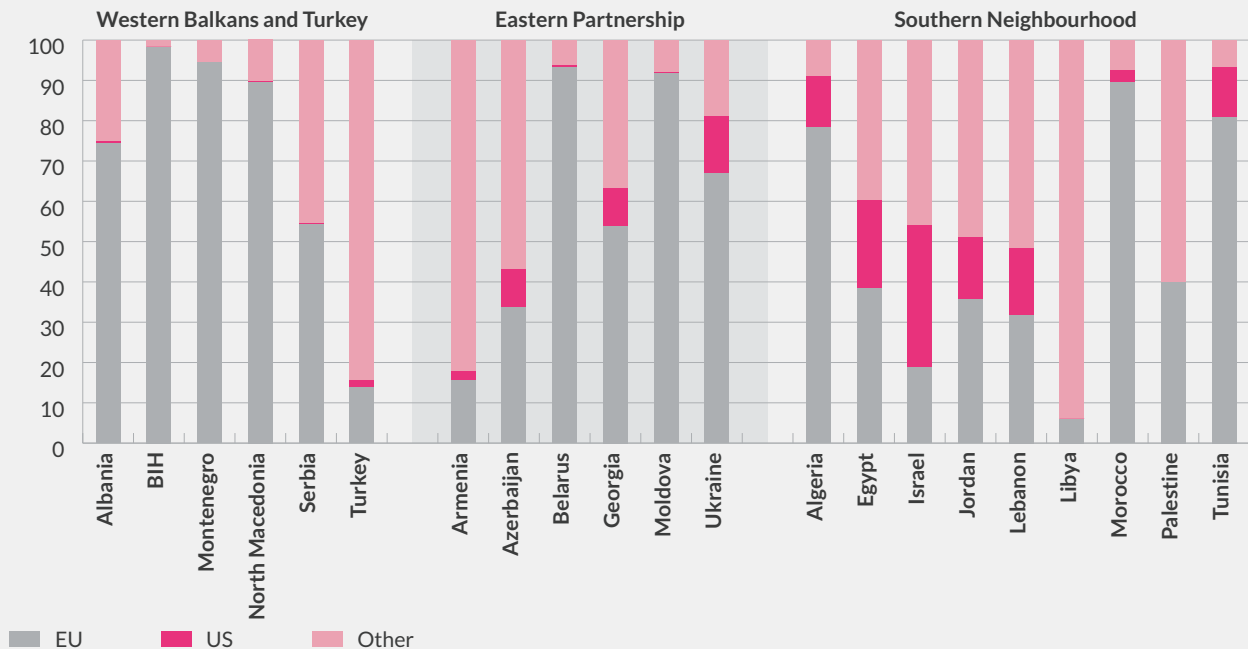
in Albania, Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia in the Western Balkans; in Belarus, Georgia, Moldova and Ukraine in the Eastern Partnership; and in Algeria, Morocco and Tunisia in the Southern Neighbourhood. This points to high interconnectivity between the banking sectors of the region and the EU. Meanwhile, US banks have a noticeable presence in several countries in the Southern Neighbourhood (Egypt, Israel, Jordan and Lebanon) as well as in Ukraine. Armenia, Azerbaijan, Egypt, Israel, Jordan, Libya and Turkey have high

FIGURE 27 Countries in the EU Neighbourhood vary greatly in terms of the degree of their investment liberalisation



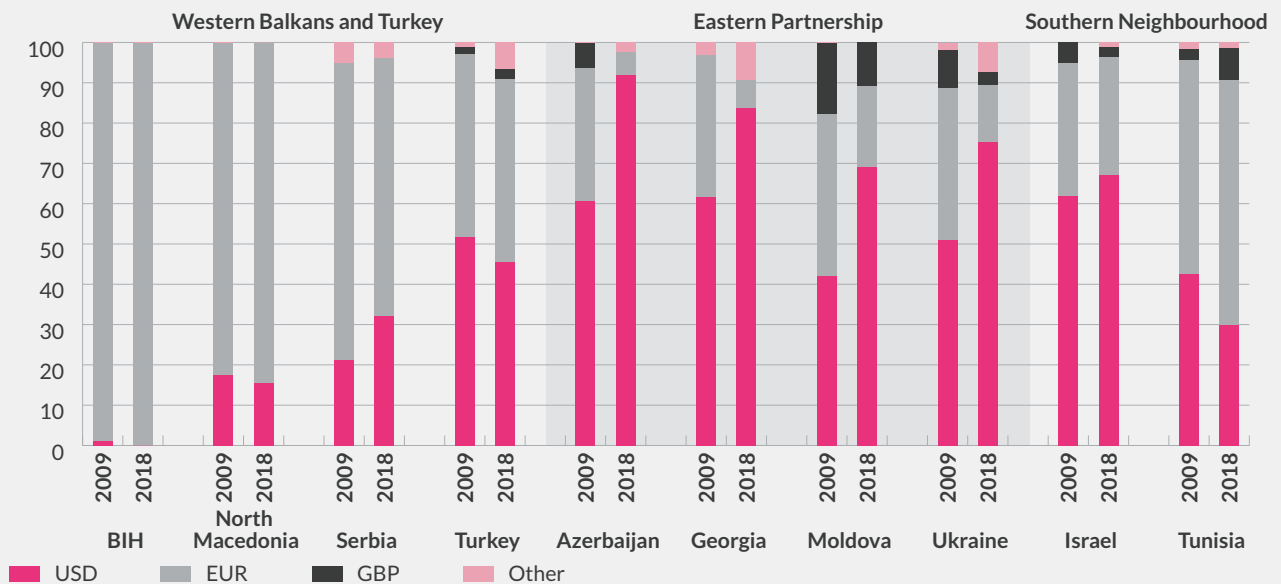
Note: Indices of FDI restrictiveness in 2020. Indices take values from 0 to 1, with 1 indicating the highest barriers to FDI.
Source: OECD. | © Bertelsmann Stiftung and wiw.

FIGURE 28 EU has large shares in total foreign assets of its neighbouring countries' banking sectors



Note: Share of the EU's and its peers' and rivals' banks in the total foreign assets of the banking sector in 2021, in percent. Consolidated foreign claims on a guarantor basis. Data for Russia and China are not included there, but based on the available evidence, their respective roles in the banking systems of the region are not very significant except for in several Eastern Partnership countries, where Russian banks are likely to have a significant presence. EU banks are prohibited from opening offices or accounts in Syria as a part of the EU's restrictive measures against the country.
Source: Bank for International Settlements, wiw calculations. | © Bertelsmann Stiftung and wiw.

FIGURE 29 The euro accounts for a high share of international reserves in many EU neighbourhood countries



Note: Currency structure of international reserves of national banks in 2009 and 2018, in percent. For Moldova and Israel, the data used are from 2011 instead of 2009.

Source: Anderson et al. 2020. | © Bertelsmann Stiftung and wiiv.

shares of foreign assets from other countries, with the UK as well as some Persian Gulf and Asian countries accounting for a significant share of these assets. Russia is likely to have a noticeable share in some of the Eastern Partnership countries.

V.6 Reserve currencies

The EU's influence in the financial sector of the region becomes even more evident when looking at the currency structure of international reserves (Figure 29). The euro dominates the international reserves of national banks in the Western Balkan countries and Tunisia. However, the Eastern Partnership countries are very dollarised, with the euro accounting for at most 20 percent of international reserves (namely, in Moldova). Turkey has its international reserves split almost equally between euros and US dollars.

Looking at changes in the currency structure of international reserves over time, it is noteworthy that the share of euros in international reserves declined

significantly in the wake of the global financial crisis in all the Eastern Partnership countries, for example, by at least 20 percentage points in the case of Moldova and by as much as 28 percentage points in that of Georgia. At the same time, the shares of US dollars increased. During this period, Serbia also saw the share of euros in its international reserves drop by almost 10 percentage points, to 64 percent. These developments are likely due to the perception of the US dollar as a safe-haven currency as well as the depreciation of the euro vis-à-vis dollar as the EU faced the Greece crisis in the 2010–2012 period.

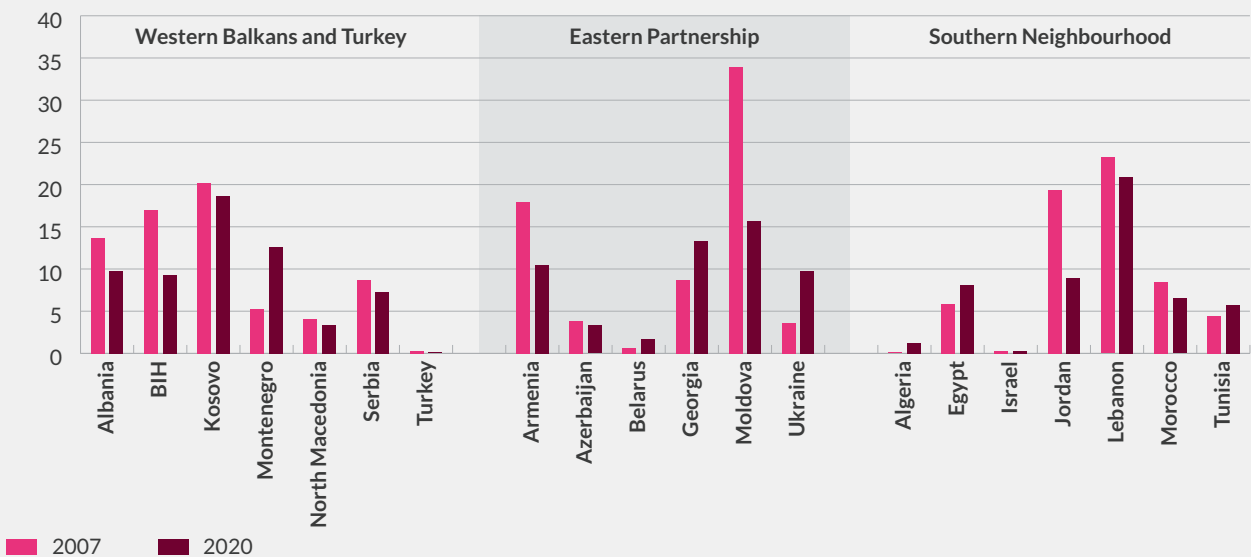
In Tunisia, the opposite trend was observed, as the share of euros in its international reserves increased by 7.5 percentage points, to 60.6 percent, between 2009 and 2018, and the share of US dollars decreased by 12.6 percentage points, to 29.9 percent. A small increase in the share of euros in their international reserves was also recorded in Bosnia and Herzegovina and North Macedonia. This likely indicates a strengthening of the economic ties between the EU and these countries, which was offsetting the safe-haven factor.

V.7 Remittances

Remittances have become an important source of finance for many of the EU's neighbouring countries. Collectively, the money that migrants send back to their home countries even exceed FDI inflows in many of these countries. In 2020, the highest shares of remittances in GDP were registered in Lebanon (21 percent), Kosovo (19 percent), Moldova (16 percent), Georgia (13 percent) and Montenegro (13 percent) (see Figure 30). In most of these countries, the share of remittances in GDP declined in the 2007–2020 period, most significantly in Moldova (–18.2 percentage points) and Jordan (–10.5 percentage points). Still, some countries started to rely noticeably more on remittances as a source of finance. For example, the share of remittances in GDP increased during that period by 7.3 percentage points in Montenegro, by 6.2 percentage points in Ukraine, and by 4.6 percentage points in Georgia.

The EU is the major source of remittances in the Western Balkans and Turkey sub-region, accounting for up to 86 percent of total remittances inflows in the case of Albania (see Figure 31). In Eastern Partnership countries, the EU is a significant source of remittances only in Moldova and Ukraine, while Russia dominates as a destination for labour migrants in other countries and, predictably, accounts for the lion's share of remittances. In the Southern Neighbourhood, the EU is the major source of remittances in Algeria, Morocco and Tunisia, which were former colonies of France and consequently developed strong economic and cultural ties with it. The US only represents a serious competitor to the EU as a source of remittances in Israel, where the former accounts for 41 percent of all remittances inflows. In some countries of the Southern Neighbourhood, a large share of remittances come from sources other than the EU, US and Russia. Among these sources are the Gulf states, Turkey, non-EU Europe, Canada and some parts of Asia.

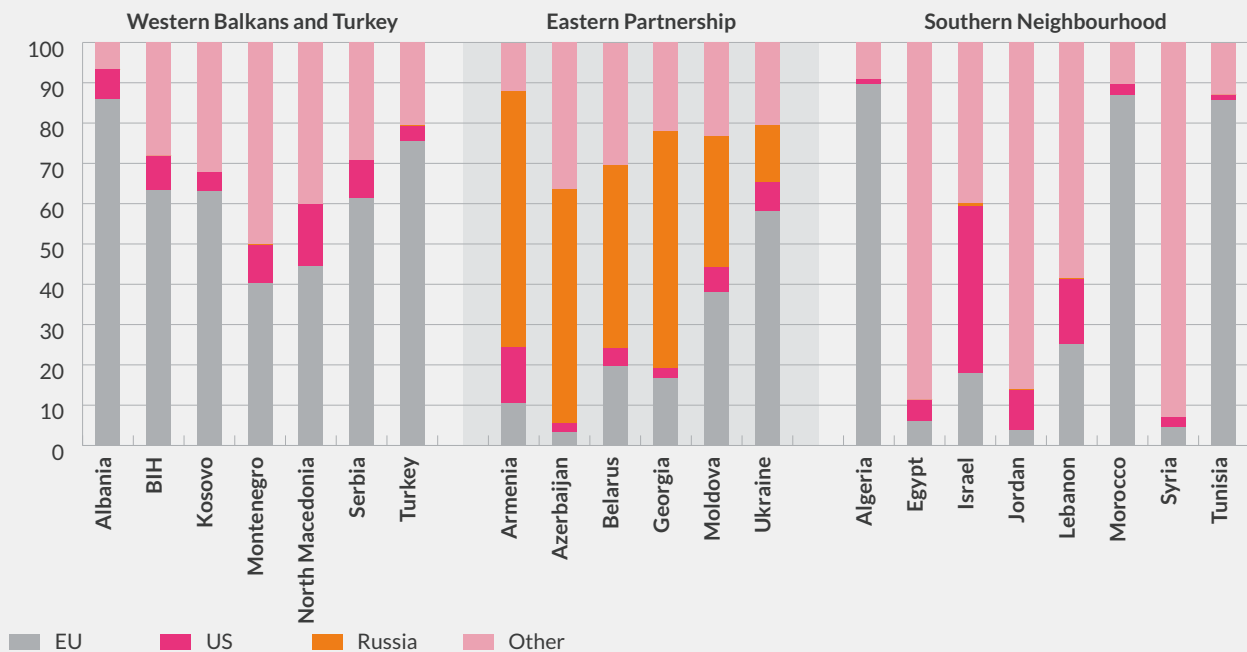
FIGURE 30 Personal remittances are an important source of finance in many EU neighbouring countries



Note: Personal remittances, received, as a percentage of GDP. For Kosovo, the 2008 value is used instead of that for 2007. Data unavailable for Libya, Palestine and Syria.

Source: World Development Indicators. | © Bertelsmann Stiftung and wiw.

FIGURE 31 The EU is a major source of remittances in many countries of the region



Note: Shares of the EU and its peers and rivals in the remittances flows to the EU neighbourhood sub-regions in 2017, as a percentage of the total. 2017 is the last year of observations in the Knoema dataset on the flows of bilateral remittances.

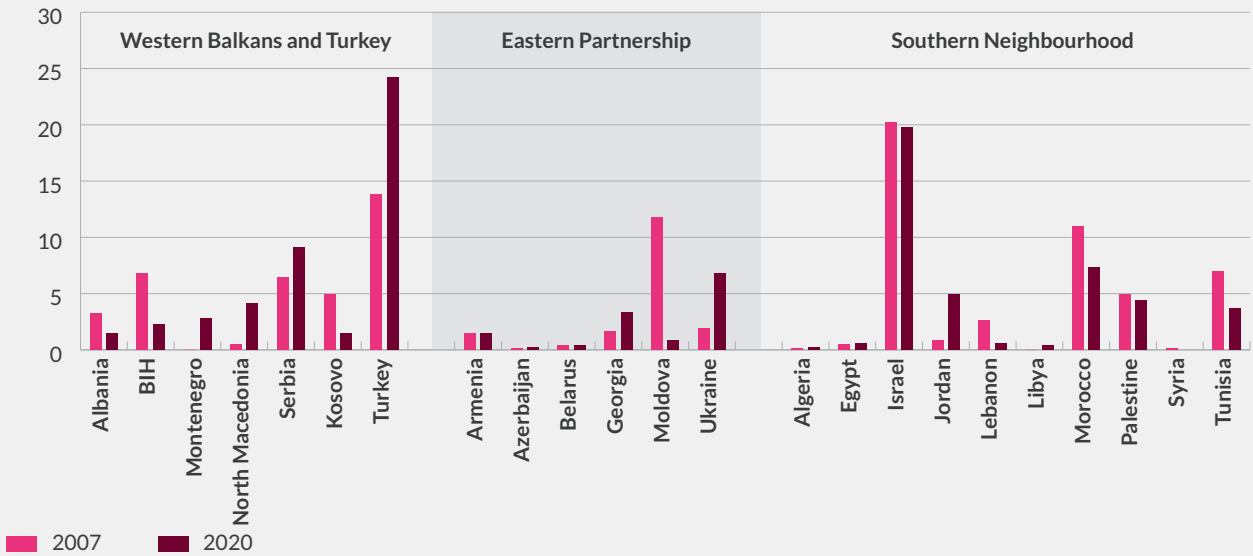
Sources: Knoema dataset, national bank data for Ukraine. | © Bertelsmann Stiftung and wiw.

V.8 EU budget support

The EU is one of the world's top providers of budget support, which involves direct financial transfers to public bodies and private companies of partner countries that are required to conduct sustainable development reforms. According to the European Commission, a general objective of the EU's budget support is to strengthen its partnerships with partner countries, to promote sustainable development, to eradicate poverty, to reduce inequalities, and to consolidate peace and democracy. Due to data limitations and compatibility challenges, we only refer here to budget support provided by the EU as a whole. However, budget support of the EU to its neighbouring countries often comes directly from individual member states. As a result, the figures referred to in this chapter represent only part of the full EU budget support received by the neighbouring countries.

Total consumed budget support to the EU neighbourhood region from the EU amounted to €4.1 billion in 2020, which was about 60 percent of the contracted budget support that year. The breakdown of commitments by country (see Figure 32) shows that Turkey remains the largest recipient of budget support in terms of volume (24 percent), followed by Israel (20 percent) and Serbia (9 percent). The lowest levels of budget support were allocated to Algeria, Azerbaijan and Libya (each accounting for less than 0.5 percent of consumed budget support to the EU neighbourhood in 2020). While the Southern Neighbourhood accounted for 47 percent of EU budget support in 2007, its share decreased to 42 percent in 2020. The share of the Eastern Partnership countries likewise shrank, from 17 to 13 percent. Instead, the sub-region of the Western Balkans and Turkey clearly became the most important destination for EU budget support, having increased its share in total EU budget support by almost 10 percentage points, to 45 percent, in 2020.

FIGURE 32 The Western Balkans and Turkey have become the biggest recipients of EU budget support in the EU neighbourhood countries



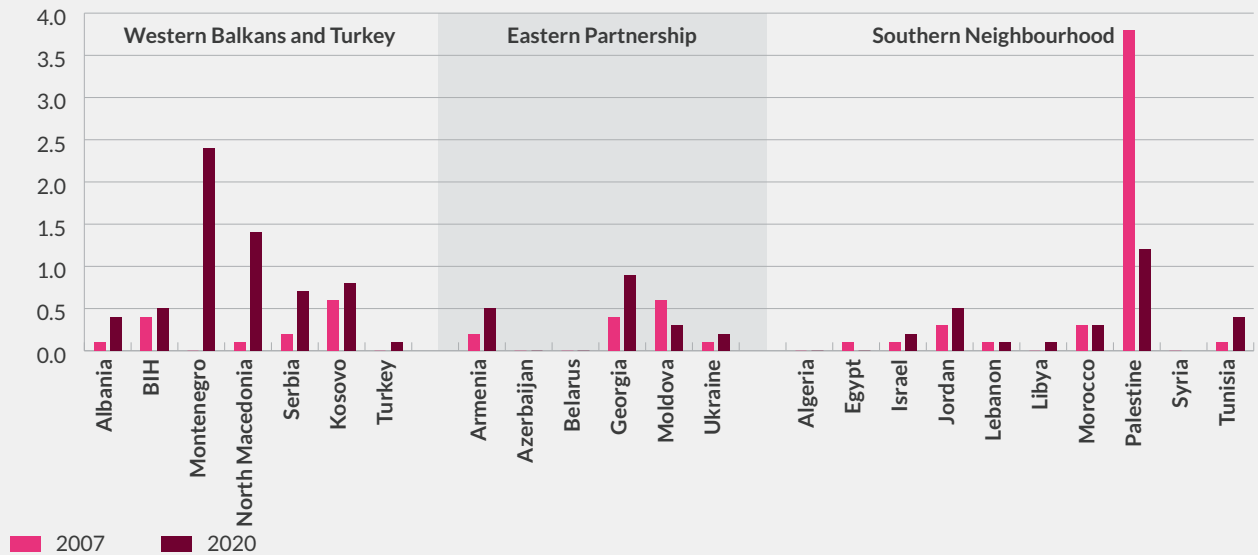
Note: Percentage shares of neighbourhood countries in total consumed EU budget support to the neighbourhood. Syria was a recipient of the EU budget support until 2019.
 Source: European Commission. | © Bertelsmann Stiftung and wiw.

Figure 33 shows how important EU budget support is to the individual economies of the region. It plays the biggest role in the Western Balkans and Turkey sub-region, where it accounts for almost 2.5 percent of GDP in Montenegro, followed by North Macedonia, Kosovo and Serbia. In other sub-regions, it is Palestine and Georgia that have the highest shares of EU budget support in terms of GDP (1.2 and 0.9 percent, respectively).

The importance of EU budget support increased in 2020 as compared with 2007 in the Western Balkans and Turkey, most strongly in Montenegro and North Macedonia. This points to the increasing connectivity between the EU and the sub-region. In the two other sub-regions, the share of EU budget support in GDP increased only marginally between 2007 and 2020, except in Georgia and Tunisia, where the increase was 0.4 and 0.3 percentage points, respectively. In Moldova, Egypt, Morocco and Palestine, the share of EU budget support in GDP even decreased, most dramatically in the latter (by 2.6 percentage points, to 1.2 percent). The COVID-19 pandemic likely worsened beneficiaries' ability to

absorb these EU funds, as has been often the case with the structural funds allocated to EU member states.

FIGURE 33 EU budget support plays an important role in the economies of its neighbouring countries



Note: Share of consumed EU budget support, as a percentage of GDP. Syria was a recipient of the EU budget support until 2019.
 Source: European Commission. | © Bertelsmann Stiftung and wiiw.

VI. Technology and knowledge exchange

In this chapter, we look at technology and know-how to establish further areas of interconnectivity between the EU and its neighbouring countries, on the one hand, and the latter and the EU's peers and rivals, on the other. In some cases, the indicators considered are relevant for interconnectivity in a more indirect way than was the case in Chapters IV and V, so we will try in what follows to provide additional theoretical and intuitive context and interpretation wherever necessary.

We investigate the respective technological interlinkage between the neighbouring countries and the EU and its peers and rivals using two indicators: trade in the ICT service sector and trade in the high-tech manufacturing sector. The ICT sector refers to telecommunication, computer and information services. High-tech trade, as defined by Eurostat,¹¹ includes several manufacturing industries (NACE industry classifications): manufacturing of basic pharmaceutical products and pharmaceutical preparations (NACE 21); manufacturing of computer, electronic and optical products (NACE 26); and manufacturing of air and spacecraft and related machinery (NACE 30.3).

Knowledge (know-how) is intangible in nature, which makes direct measurements unavailable, especially at the macro level. To measure the knowledge exchange between two countries, we use two indicators, which are very different from and unrelated to each other but can nevertheless convey a coherent story when used in combination. The two indicators are: (i) the UNESCO data on student exchange between the EU and its peers and rivals and the neighbouring countries and (ii) WIPO data on patents granted by the EU's and its peer countries' patent offices to the neighbouring countries.

¹¹ For more details, please refer to European Commission (undated).

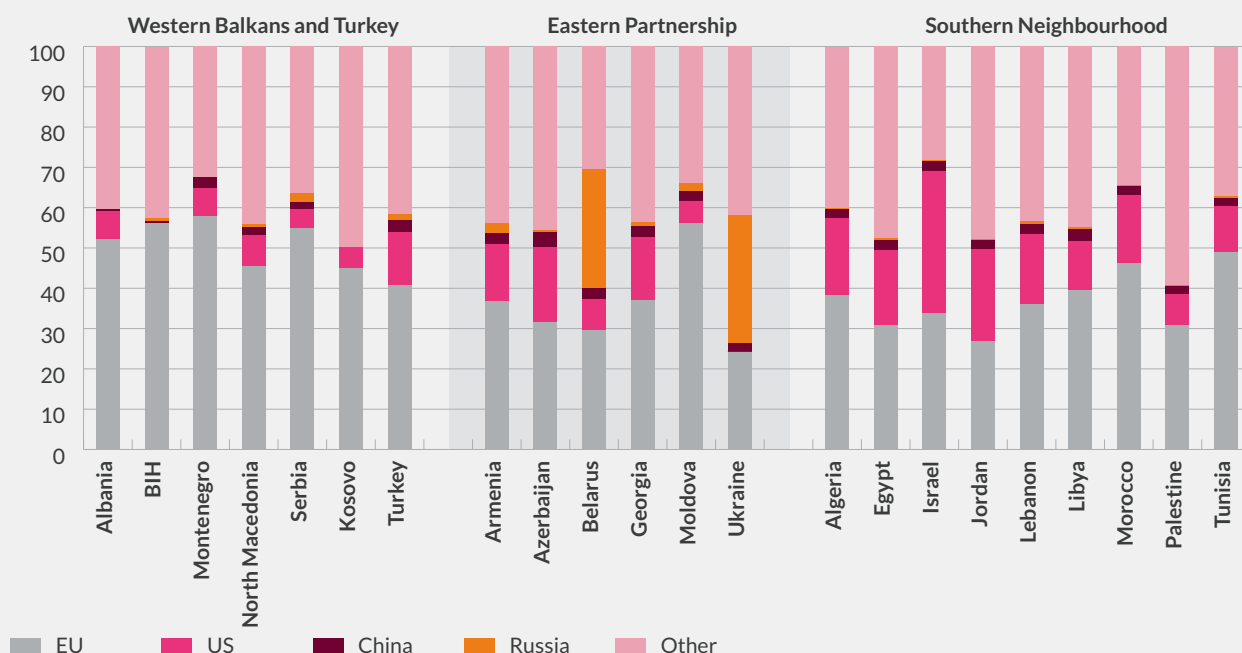
We find that most of the ICT imports in the neighbouring countries come from the EU, while the US is also an important actor, especially in the Southern Neighbourhood. Though still small, China's share is growing in almost all the neighbouring countries. The EU and China are almost equally important in the neighbouring countries when it comes to high-tech imports. But the EU's share has declined substantially in recent years, while China's share has increased in Southern Neighbourhood and Eastern Partnership countries, in particular.

These days, most exchange students from the neighbouring countries go to the EU, although those from Eastern Partnership countries (e.g. Armenia, Belarus and Ukraine) may also go to Russia, or at least did so before the war. The number of exchange students coming from Eastern Partnership countries to the EU has substantially increased over the past decade, especially from Ukraine. The evidence is mixed for the Western Balkans and the Southern Neighbourhood. Neighbouring countries primarily patent in the US, although some of the Eastern Partnership countries also patent in Russia. The technology field in which cooperation and interconnectivity between the EU and its neighbouring countries is most pronounced is medical technology.

VI.1 Technology exchange

Technology is pivotal for growth, and technological exchange between countries can contribute to technological catch-up. This is particularly important for emerging economies, such as those in the neighbouring countries that are technologically lagging behind the developed economies, as they have fewer savings to reinvest, less

FIGURE 34 Most of the ICT imports in the EU neighbourhood countries come from the EU



Note: Share of ICT imports from the EU and its peers and rivals in total ICT imports in 2019, in percent. Data for Syria are missing. Data only available through 2019.

Source: WTO. | © Bertelsmann Stiftung and wiw.

access to finance, and lower levels of the intangible assets needed for technological growth (Vujanović 2021; Vujanović et al. 2021; Dowrick and Rogers 2002).

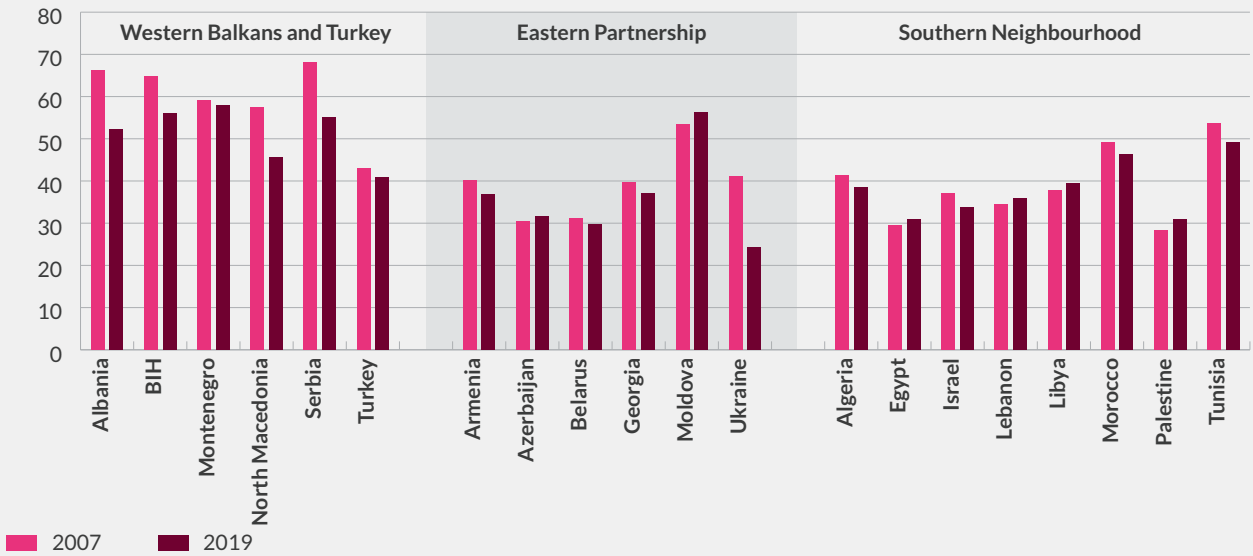
The rapid diffusion of ICT has had an immense societal impact as well as an effect on production and consumption patterns. However, the US has been ahead of the EU in terms of ICT expansion due to its larger investments in this field (Katić et al. 2013). In Russia, however, the progress of the ICT sector is still determined by state regulations (Romanyuk et al. 2021), while China's ICT sector is gaining in global importance (EMIS 2020). All these aspects may affect the digital presence of the EU's peers and rivals in its neighbouring countries.

Figure 34 reveals that most of the imports in the ICT service sector in the neighbouring countries come from the EU, implying that digital services in these countries can be highly affected by EU technologies. This is in line with research showing that the EU has increased its ICT exports overall,

seizing the opportunities stemming from digitalisation (Ambroziak 2020; Stefaniak and Ambroziak 2021). The share of EU imports ranges from one-quarter (in Ukraine) to more than half (in Moldova). This holds true for all three sub-regions, but it is especially the case for the Western Balkans and Turkey. The second peer affecting the neighbouring countries, although to a much smaller extent, is the US, whose shares are particularly high for some countries in the Southern Neighbourhood, such as Israel and Jordan. On the other hand, Western Balkan countries' ICT imports from the US are much smaller (approximately 5 percent). The same holds for Belarus, Moldova and Palestine.

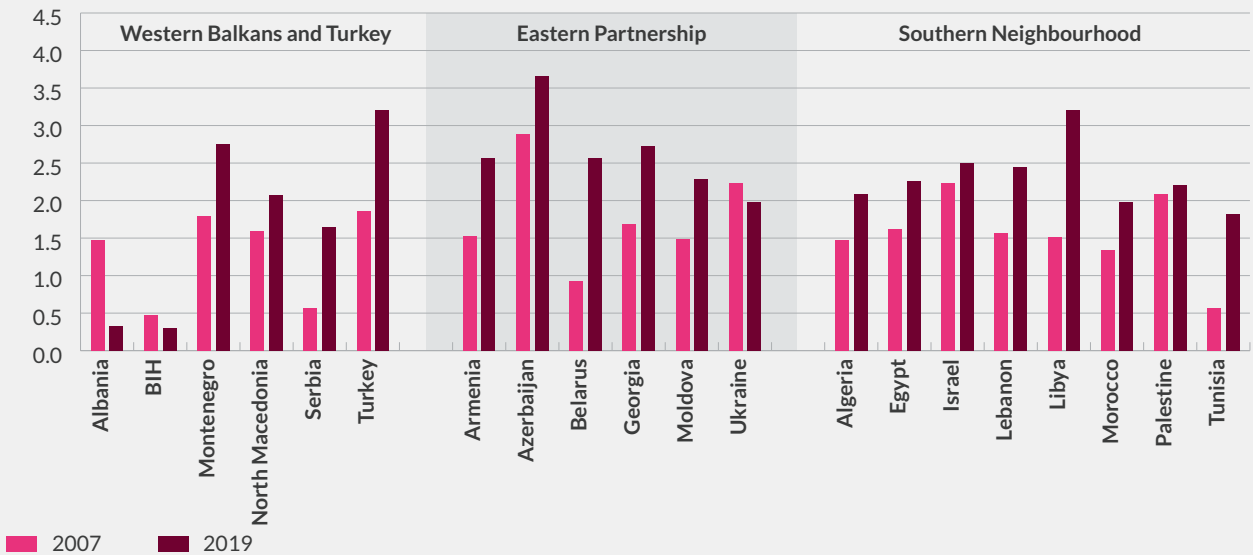
Russia and China are negligible contributors to the ICT sectors in the neighbouring countries. However, two prominent exceptions are Belarus and Ukraine, where Russia is an important player in the ICT sector, accounting for 29.7 and 32 percent of the ICT import share, respectively. At least before the war, Russia's share in Ukraine was even higher than the EU's share.

FIGURE 35 The EU's share in total ICT imports in its neighbouring countries has remained mostly stable over the past decade



Note: Share of EU ICT imports in total ICT imports in the EU neighbourhood countries, 2007 and 2019, in percent. Data missing for Jordan, Kosovo and Syria. Data only available through 2019.
 Source: WTO. | © Bertelsmann Stiftung and wiiv.

FIGURE 36 The share of China's ICT imports has increased almost everywhere in the EU neighbouring countries



Note: Share of China's ICT imports in total ICT imports in the neighbouring countries, in 2007 and 2019, in percent. Data unavailable for Jordan, Kosovo and Syria. Data only available through 2019.
 Source: WTO. | © Bertelsmann Stiftung and wiiv.

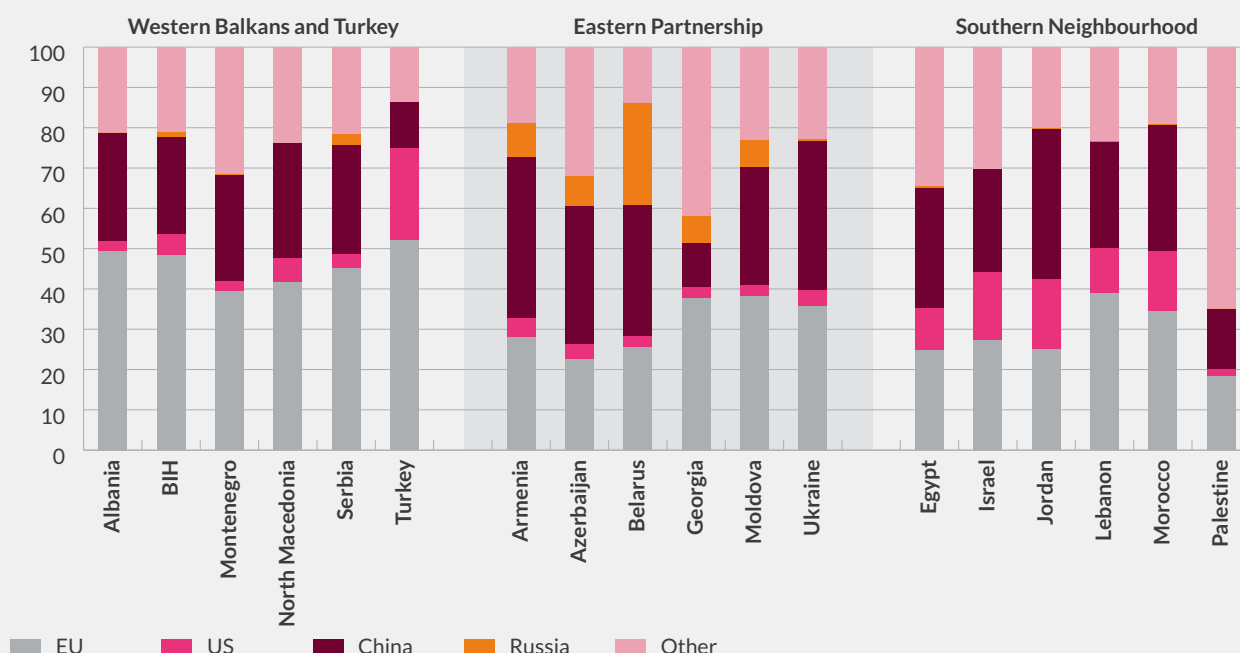
Looking at the dynamics of the EU's share in ICT imports, one can conclude that it has been a dominant player in the neighbouring countries over a longer period (Figure 35). From 2007 to 2019, its share in total ICT imports did not change substantially. However, the Western Balkan countries were an exception here, as the EU's shares in ICT imports declined by more than 10 percentage points in Albania, North Macedonia and Serbia. Another prominent exception was Ukraine, where technology diffusion from the EU substantially declined. The EU's share in the ICT imports in Ukraine declined by 16.7 percentage points in the 2007–2019 period owing to Russia's increasing share in this sector. In addition, Russia boosted its influence in Serbia, even though its share decreased in other Western Balkan countries. The reason could be that Serbia is the one country in the region that has signed a free trade agreement with Russia.¹²

¹² The bilateral free trade agreement between Russia and Serbia was signed in 2000 and came into force in 2006. Although it covers trade in goods, it may have a spillover effect on trade in the ICT sector, too.

While the EU's digital presence in its neighbouring countries has been quite stable, China's presence has been on a rise (see Figure 36). The individual share of ICT imports originating from China increased almost everywhere in the EU's neighbouring countries between 2007 and 2019, with Albania, Bosnia and Herzegovina, and Ukraine being the only exceptions.

The high-tech import composition (of manufacturing of pharmaceuticals, computers, electronic and optical products as well as spacecraft and related machinery) is more heterogeneous than that of ICT imports (Figure 37). However, we do notice a larger involvement of China, mostly because it has become a very important global trading partner since its entry into the World Trade Organization in 2011. This applies to computer, electronic and optical high-tech products (Stehrer and Vujanović 2022). A large part of the high-tech imports in the neighbouring countries is still sourced from the EU, ranging from 18 percent (in Palestine) to 52 percent (in Turkey). The Western Balkan countries

FIGURE 37 Most of the high-tech imports in EU neighbourhood countries come from the EU and China



Note: Share of high-tech imports from the EU and its peers and rivals in total high-tech imports, in percent. Data unavailable for Algeria, Kosovo, Lebanon, Libya and Syria.

Source: UN COMTRADE. | © Bertelsmann Stiftung and wiwi.

stand out here, as approximately half of the total high-tech imports there are sourced from the EU (with the exception of Montenegro, with shares of less than 40 percent). Thus, although China is assuming a leading global role when it comes to trade in high-tech products, geographical proximity to the EU has obviously played an important role and allowed the EU to maintain its status as the dominant supplier.

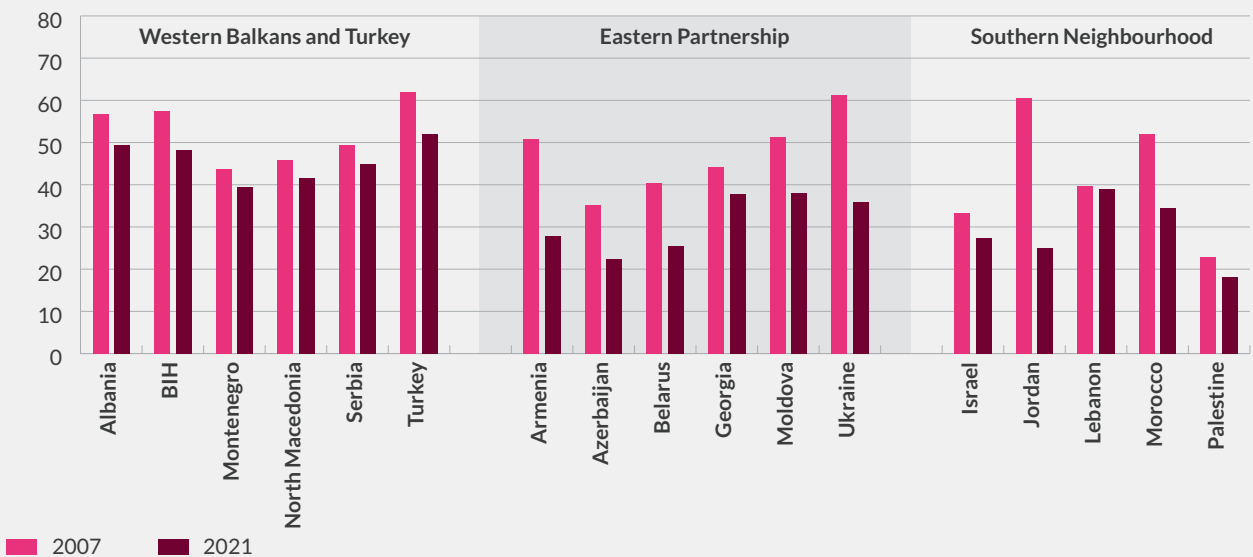
Nevertheless, China is the leading exporter of high-tech goods (accounting for over one-third of import composition) to Armenia, Azerbaijan, Jordan and Ukraine, as well as the second-biggest exporter to the other neighbouring countries (apart from Israel). The US is the third-biggest transmitter of technology in the high-tech sector, except in the case of Israel, where it represents the largest one, accounting for a 38 percent share of high-tech imports. Once again, Belarus is an interesting outlier among the EU’s neighbouring countries, as the largest share (26 percent) of its high-tech imports originate from Russia. This makes Belarus the only country for which Russia is the main transmitter of high-tech goods.

Comparing the EU’s participation in the high-tech trade with its neighbouring countries between 2007 and 2021 (Figure 38), one can see that it has declined in all countries.

The decline has been pronounced in the Eastern Partnership countries, and especially in Armenia and Ukraine, both of which noted a decline of about 25 percentage points. The decline was also pronounced in the Southern Neighbourhood, especially in Jordan and Morocco. This stems from the expansion of the high-tech trade with China, which has risen substantially across almost all the countries.

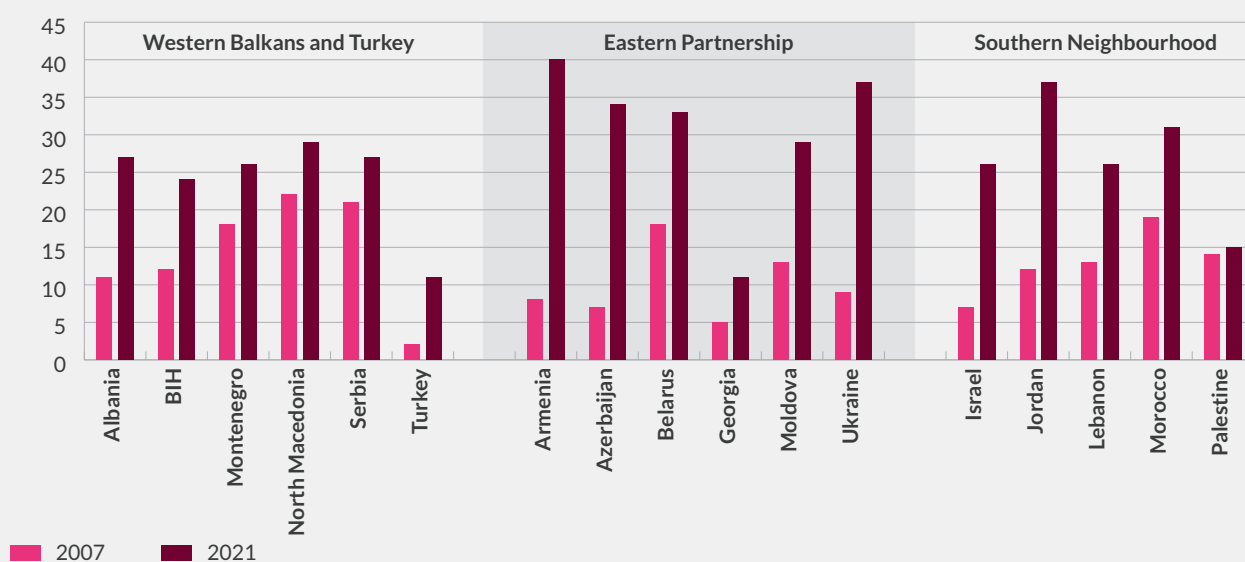
On the other hand, China’s share in the high-tech imports of the EU’s neighbouring countries increased substantially across all the countries between 2007 and 2021 (Figure 39). Many countries experienced a double-digit rise in their share of high-tech goods traded with China. This applies to Albania and Bosnia and Herzegovina in the Western Balkans, to all the Eastern Partnership countries except Georgia, and to all the countries in the Southern Neighbourhood except Palestine. Considering that China signed the Regional Comprehensive Economic Partnership (RCEP) agreement in 2020 with Australia, Japan, New Zealand, South Korea and the ASEAN countries to collectively form the largest trade block in history, we may see changing patterns with respect to the high-tech trade in the future (Stehrer and Vujanović 2022). This is because it is likely that future trends will be towards greater

FIGURE 38 The share of EU high-tech imports has declined everywhere in its neighbouring countries



Note: Share of the EU’s high-tech imports in total high-tech imports in the EU neighbourhood, in 2007 and 2021, in percent.
 Source: UN COMTRADE. | © Bertelsmann Stiftung and wiiv.

FIGURE 39 The share of Chinese high-tech imports has increased almost everywhere in the EU neighbouring countries



Note: Share of China's high-tech imports in total high-tech imports in the EU neighbouring countries, 2007 and 2021, in percent.
Source: UN COMTRADE. | © Bertelsmann Stiftung and wiiw.

regionalisation rather than globalisation and that China will place a greater focus on RCEP countries at the cost of the western trade sphere. On the other hand, Russia's high-tech presence has been relatively stable during the period under observation, although it has substantially increased in Belarus (by 12.5 percentage points) and decreased in Ukraine (by 6.7 percentage points).

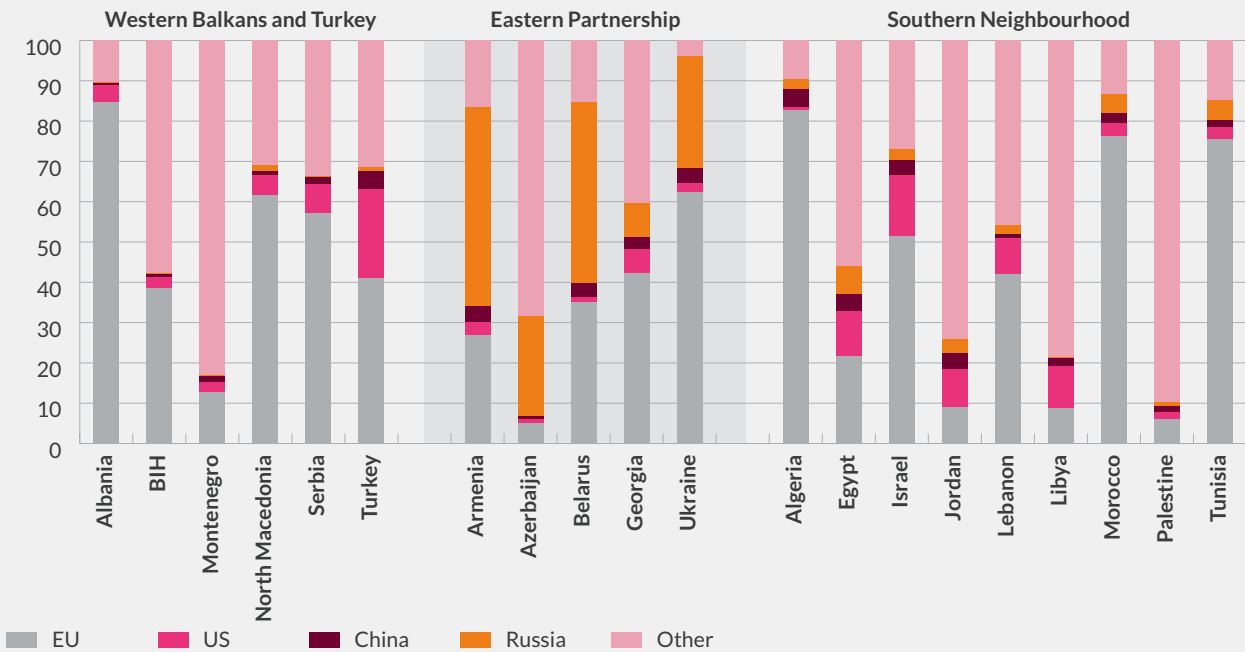
VI.2 Knowledge exchange

UNESCO data on cross-country student exchanges reveal to what extent two countries cooperate in education and thereby influence each other's human capital. Via exchanges, students can, among other things, increase their stock of academic knowledge, learn a new language, improve their networks and expand their ambition, potentially giving them a leg up compared to their peers who do not have such experiences (Teichler and Jahr 2001). These are essential inputs for building human capital as well as boosting career (i.e. labour market) performance, productivity and salary later in life (Messer and Wolter 2007). Such improvements in human capital are beneficial to a country's long-term development. Research also indicates that students

studying abroad develop soft power skills that they can use in their home countries when they attain positions in politics (Lomer 2017) or business (Devedzic and Almeida 2022). Using a comparative analysis of student exchanges, Atkinson (2010) also finds that soft power skills are developed in part through social interactions that occur while abroad and that this experience can positively shape the institutional environment in the students' home countries.

Figure 40 shows the exchange students from the neighbouring countries to China, the EU, Russia and the US as a percentage of the total number of exchange students. One can see that most exchange students from the neighbouring countries go to the EU. The greatest scope of learning from the EU via student exchanges is present in the Western Balkans and Turkey as well as in the Southern Neighbourhood. These exchanges increase the chances of forming lasting connections through the development of soft power skills, which are considered important for both business and institutional development. Among the Eastern Partnership countries, Russia turns out to be very influential in this sense, as most of the exchange students from Armenia, Azerbaijan and Belarus, as well as a large share of the exchange students from Ukraine, go to study in Russia.

FIGURE 40 Most of the exchange students from EU neighbourhood countries go to the EU, although many from Eastern Partnership countries also go to Russia



Note: Exchange students from the EU neighbourhood countries to China, the EU, Russia and the US, as a percentage of all exchange students in 2016. Last available year for China is 2016, which is why the data refer to 2016. Data unavailable for Kosovo, Moldova and Syria. Source: UNESCO. | © Bertelsmann Stiftung and wiw.

Looking over the longer horizon (Figure 41), we see that the number of exchange students headed to the EU has increased during the 2010–2019 period, but not for all countries. The number of exchange students bound for the EU has increased in all the Western Balkan economies apart from Albania and North Macedonia.¹³ Turkey particularly benefited from the knowledge exchange via student exchange. The rise in the number of exchange students is also evident across all the Eastern Partnership countries and particularly high for Ukraine beginning in 2013, which could be the result of the conflict with Russia and a societal shift in mindset – in other words, a growing sense that Ukraine is heading towards the EU. Exchanges with the EU rose for most of the countries in the Southern Neighbourhood, particularly in Israel and Jordan. However, some countries (e.g. Algeria, Lebanon and Morocco) witnessed a slight

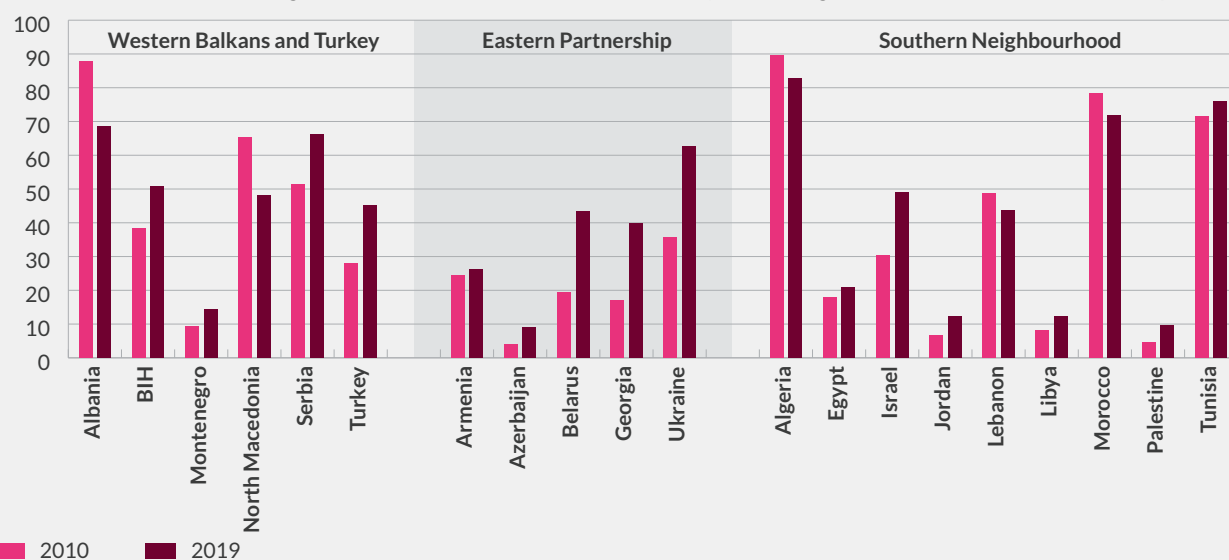
13 For North Macedonia, the number of exchange students to the EU has not changed in absolute terms, but the number to other countries has risen and thereby decreased the number heading to the EU.

decrease in the numbers of their exchange students to the EU over the 2010–2019 period.

The EU is becoming increasingly important when it comes to transferring knowledge via exchange students, who can subsequently increase interconnectivity between the EU and their home countries as their careers progress. Here, the EU can play on its strengths – not least the attractiveness of open, liberal societies and liveable cities. In the most recent edition of the Economist Intelligence Unit’s Global Liveability Index (EIU 2022), the top two cities and four of the top 10 were in the EU (Vienna: 1; Copenhagen: 2; Frankfurt: 7; Amsterdam: 9). No cities from China, Russia or the US made it into the top 10.

The second indicator that we use to explore the transfer of know-how is total patents granted to the neighbouring countries by the EU, on the one hand, and by its peers and rivals, on the other. Patenting is the most important

FIGURE 41 Student exchanges with EU have increased substantially in EU neighbourhood countries in recent years



Note: Student exchanges with the EU, percent of total exchange students, 2010–2019.
Source: UNESCO. | © Bertelsmann Stiftung and wiw.

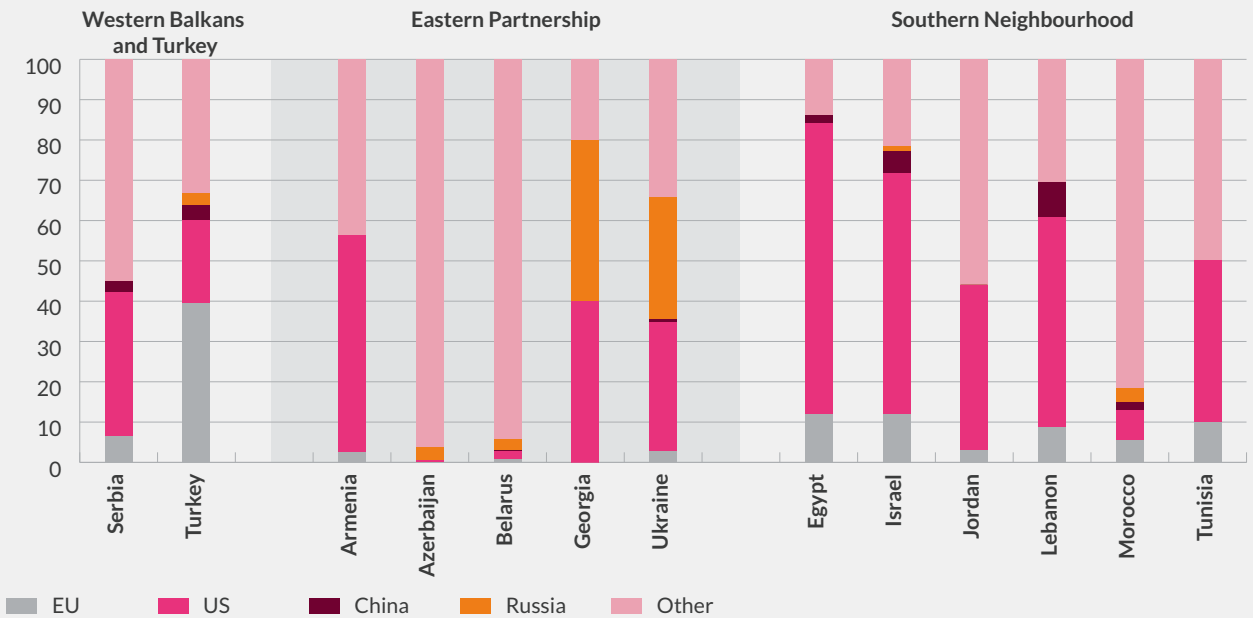
activity protecting intellectual property rights, so the number of patents granted signals a knowledge potential in a country. Moreover, if a country happens to have many patents registered in another country, this would indicate cooperation and knowledge exchange between the two countries as well as, to some extent, a degree of interconnectivity in the area of know-how.

We use data from the World Intellectual Property Organisation (WIPO) to analyse which patent offices (EU or its peers' and rivals') granted patents to the neighbouring countries in 2020. The data are based on the residence-of-the-applicant criterion; in other words, if a legal or natural person with resident status in Israel is granted a patent from the US patent office, this is counted as a patent of Israel granted by the US. These data should reveal the patterns of cooperation and interconnectivity in the field of know-how between the neighbouring countries and the EU and its peers and rivals, respectively, though they do have some limitations. To begin with, the number of patents is very low for many of the countries, which might be because the neighbouring countries are very modest innovators. This holds particularly true for the Western Balkan economies: in 2020, Montenegro and Bosnia and

Herzegovina were granted only one patent abroad, while only two patents were granted to North Macedonia and four to Albania (of which no patent was granted by the EU or the other countries considered here). This comes as no surprise considering that these economies mainly innovate via the use of the existing knowledge rather than R&D (Vujanović et al. 2022). Furthermore, not all patents are equally important. An incremental improvement or a rough conceptual idea can sometimes be patented just as easily as a breakthrough innovation. While all these examples would appear equally important in our analysis, the latter one is for sure much more important in reality than the former two. Finally, patents are widely considered an imperfect measure of innovation, as not all innovations are patented (Pakes and Griliches 1984). Some innovations are produced with the simple use of machinery and equipment (without R&D) and are rarely subject to patents (Vujanović et al. 2022).

With all these caveats in mind, we proceed with the analysis of the WIPO patent data. Figure 42 displays the share of patents granted by the patent offices of the EU and its peers and rivals, respectively, to the total patents granted abroad to the neighbouring countries. One can see that most of the patents of the neighbouring countries are granted by

FIGURE 42 Countries from the EU neighbourhood mainly patent in the US¹⁴



Note: Patents granted by the EU's or its peer countries' patent offices to EU neighbourhood countries, as a percentage of total patents granted to the neighbouring countries abroad, in 2020. Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Libya, Palestine, Syria and Moldova are omitted due to a lack of data.
Source: World Intellectual Property Organization (WIPO). | © Bertelsmann Stiftung and wiw.

the US patent office, while the shares of the EU, China and Russia seem to be much smaller. Turkey is an exception, as it has almost twice as many patents with the EU patent offices than the US ones. Other exceptions are some ex-Soviet countries that patent to a great extent with Russia. Ukraine and Georgia, for example, patent equally with the Russian and the EU patent office, while Belarus and Azerbaijan patent even more with Russia, implying that these economies can find recognition for their innovative efforts more within their former ex-Soviet region. This is less likely to be the case in Ukraine following Russia's invasion in 2022.

The greater patenting by the US patent office as opposed to that of the EU for most of the neighbouring countries could be for two main reasons. First, the US has a uniform

patent-law system while the European patent law is based on the European Patent Convention, which is not part of EU law (Reiter 2010). Second, a great obstacle with European patenting is that each EU country needs to validate the patent so that it applies to the entire EU. In other words, European patents only have effects in countries where they are validated. This makes the procedure of getting the grant for the whole EU very costly and time-consuming, as the validation requirements differ between countries, while there are also the associated administrative costs (e.g. translation expenses). This is a considerable time loss and one that prevents innovators enjoying the market gains from their innovations, which required costly investment. To circumvent this issue, the EU has initiated the formation of a unitary patent that should cover the entire bloc and speed up the patenting procedures, but it will only become active once the Unitary Patent Court Agreement (UPCA) enters into force. Currently, this agreement has only been provisionally active since January 2022.¹⁵

14 The graph reveals that Azerbaijan, Morocco and Belarus patent to a significant degree with other countries. According to WIPO IP Statistical Data Center, Azerbaijan patents in Turkey and Ukraine, too. Belarus also patents in Ukraine and, to some extent, in Poland and the UK. Morocco also patents in Canada, Switzerland and the UK.

15 For more information, see EPO (undated).

TABLE 9 Most common technology fields in which EU neighbourhood countries have patents in each of the peer and rival countries

Neighbouring country	EU	US	China	Russia
Serbia		13 – Medical technology; 25 – Handling; 30 – Thermal processes and apparatus		
Turkey	34 – Other consumer goods	13 – Medical technology	31 – Mechanical elements	32 – Transport
Azerbaijan				23 – Chemical engineering; 27 – Engines, pumps, turbines; 29 – Other special machines
Belarus	13 – Medical technology			31 – Mechanical elements
Ukraine		6 – Computer technology	27 – Engines, pumps, turbines	13 – Medical technology
Egypt	13 – Medical technology	5 – Basic communication processes; 13 – Medical technology; 16 – Pharmaceuticals		
Israel	13 – Medical technology	6 – Computer technology; 13 – Medical technology	13 – Medical technology	13 – Medical technology; 26 – Machine tools
Lebanon		6 – Computer technology		

Note: For each country-peer combination, the technologies with the highest number of patents is shown. Only instances of more than one patent are shown.
Source: WIPO. | © Bertelsmann Stiftung and wiiv.

Next, we assess in which fields of technology the neighbouring countries have patents in each of the four peers and rivals. As fields of technology, we use the 35 areas used by the WIPO.¹⁶ For each of the neighbouring countries, we show the most common technologies for each of the peers. We omit the instances when a country has just one patent in a certain technology in a certain peer. Table 9 shows this overview. The way to read the table is that, for example, most of the patents that Turkey has in the EU are for “other consumer goods”, while most of those in the US are for “medical technology”.

16 1 – Electrical machinery, apparatus, energy; 2 – Audio-visual technology; 3 – Telecommunications; 4 – Digital communication; 5 – Communication processes; 6 – Computer technology; 7 – IT methods for management; 8 – Semiconductors; 9 – Optics; 10 – Measurement; 11 – Analysis of biological materials; 12 – Control; 13 – Medical technology; 14 – Organic fine chemistry; 15 – Biotechnology; 16 – Pharmaceuticals; 17 – Macromolecular chemistry, polymers; 18 – Food chemistry; 19 – Basic materials chemistry; 20 – Materials, metallurgy; 21 – Surface technology, coating; 22 – Micro-structural and nano-technology; 23 – Chemical engineering; 24 – Environmental technology; 25 – Handling; 26 – Machine tools; 27 – Engines, pumps, turbines; 28 – Textile and paper machines; 29 – Other special machines; 30 – Thermal processes and apparatus; 31 – Mechanical elements; 32 – Transport; 33 – Furniture, games; 34 – Other consumer goods; 35 – Civil engineering.

Looking at the most common fields for each of the four peers and rivals, one can observe that this seems to be “medical technology” for the EU. For the US, the two most common fields are “medical technology” and “computer technology”. China and Russia appear to be different, though. Although “medical technology” appears there as well, the fields that dominate are from the machinery area – “mechanical elements” and “engines, pumps, turbines” in China, and “mechanical elements”, “engines, pumps, turbines” and “machine tools” in Russia.

Thus, the conclusion from the analysis of patent activity by fields of technology would be that cooperation between the EU and its neighbouring countries in the field of know-how is especially strong in the area of medical technology.

VII. Infrastructure connectivity

Infrastructural networks are essential for cross-border trade and investment and thereby provide an important indicator of interconnectivity. However, quantifying such networks in a comparable way across our whole region of interest, as well as for the EU and all its peers and rivals, is a challenging task. To approximate this as best we can, we take two main approaches in this chapter. First, we approximate connectivity using the share of employment in US-, Chinese-, EU- and Russia-owned firms in the EU's neighbouring countries in both warehousing and support activities for transportation as well as the telecommunication industry. Second, we use greenfield FDI data and the China Global Investment Tracker (AEI 2022) to delve further into foreign ownership of strategically important industries in the EU's neighbouring countries.

The EU is by far the most important actor in the neighbourhood in terms of transport connectivity, and it also dominates in telecommunications,¹⁷ although Russia is also a big player in some Eastern Partnership countries in the latter field. Energy appears to be the key target industry for investments from the EU and its peers and rivals as well as where we expect most of the competition to occur. The EU appears to maintain equal, although minor shares of investment flows into the telecom and transport industries in all sub-regions. Russia used to heavily invest in energy-related transport and storage capacities in the Western Balkans and in telecom in the Eastern Partnership countries, though it is questionable whether this will remain the case going forward owing to sanctions. The US is particularly active in Israel in the telecommunications industry and guided by the tech giants, which invest in the development

of new products to deliver them globally. For China, the EU's neighbouring countries do not appear to be a priority in its investment strategy, and it has a somewhat stronger focus on construction- rather than energy-related investments. Although this could be a deliberate strategy, it could also be the result of purely economic decision-making given that Chinese civil engineering ranks among the global leaders in terms of volume.

VII.1 Measuring infrastructure connectivity

Infrastructural networks (e.g. roads, railways, airways, ports, energy and telecommunication networks) are essential for cross-border trade and investment and, in general, for economic cooperation (Bhattacharyay 2010). However, the controversies surrounding the delivery of fossil fuels from Russia to Europe amid the war in Ukraine have highlighted that exposures in critical economic sectors can serve as a source of leverage when demanding political concessions. Given these facts, foreign investments in critical infrastructure may create security threats for a region if the investor and the recipient stick to distinctly opposing views on common foreign policy issues.

This chapter discusses the patterns of investment in the EU's neighbouring countries from a geo-economic perspective, and thereby focuses on critical infrastructure. We define critical infrastructure as the civilian industries that provide essential inputs for the delivery of a broad range of goods and services: energy, utilities, transport and logistics objects (warehouses, roads, ports, airports), and

¹⁷ When referring to the telecommunication industries, this section uses the words "telecom", "telecommunications" and "telecommunication" interchangeably.

telecommunication.¹⁸ Our aim is to identify the ownership of such infrastructure in the neighbourhood by the EU, its peers and its rivals.

Calculating infrastructural connectivity is very data-challenging, and there are different ways to measure transport connectivity. One is to use data on the number of international flights between countries, but this data is not accessible via public sources. Another one is to use the number of cross-country passengers gathered from national sources, but this is also not always available. Of course, mobile connectivity could also be measured by the cost of roaming charges, but this data is likewise difficult to obtain.

To get around these obstacles, we take two approaches. First, we approximate connectivity using the share of employment in US-, Chinese-, EU- and Russia-owned firms in total foreign-owned firm employment in two industries: warehousing and support activities for transportation (NACE 52) and telecommunications (NACE 62).¹⁹ These will give us measures of transport connectivity and communication connectivity, respectively. Second, we use greenfield FDI data and the China Global Investment Tracker to delve further into foreign ownership of strategically important industries in the EU's neighbouring countries.

VII.2 Transport and communication connectivity

To calculate the first set of indicators, we use proprietary firm-level data from Orbis Bureau Van Dijk, which contains information on a firm's ID, its ownership structure by investor origin, and its number of employees. Foreign firms' employees are also weighted by the size of foreign ownership, meaning that firms that have a higher share

¹⁸ We do not include defence, aerospace and financial industries on the list due to poor data coverage of these sectors in data sources. Including the available FDI information on the aforementioned industries would only account for a minor part of the investment amounts in the EU's neighbouring countries (though they are available upon request).

¹⁹ NACE 52 encompasses the following NACE 4 industries: warehousing and storage (5210), service activities incidental to land transport (5221), service activities incidental to water transportation (5222), service activities incidental to air transportation (5223), cargo handling (5224) and other transportation support activities (5229). NACE 61 encompasses the following industries: wired telecommunication activities (6110), wireless telecommunications activities (6120), satellite telecommunications activities (6130) and other telecommunications activities (6190).

of foreign ownership are weighted more than firms that have a lower share. This measure is constructed following Javorcik (2004) and allows us to assess (i) which of the EU and its peers and rivals play an essential role in the transport and communication sectors and (ii) which EU/peer countries transmit knowledge, technology and practices from their home countries to the neighbouring countries. Unfortunately, data for some economies (e.g. Albania, Algeria, Azerbaijan, Libya, Morocco, Palestine, Syria and Tunisia) are missing, which is why they do not appear in the charts. This, in turn, limits the analysis to a smaller geographical scale.

Before presenting the results, it is also important to highlight that we only deal with companies whose owners are partially or exclusively foreign, but not with firms that only have domestic owners. This implies that the calculation is made on the sample of firms that have foreign ownership, while a large number of domestic firms are not incorporated into the calculation due to the nature of this analysis.

The results for the transport sector (Figure 43) reveal that the dominant foreign shareholder in the transport industry is the EU, especially in the Western Balkan countries. In Serbia, about 90 percent of the foreign ownership in the transportation industry comes from EU countries. These shares are also large for other Western Balkan economies, such as North Macedonia (59 percent), Montenegro (85 percent), and Bosnia and Herzegovina (85 percent). Likewise, in Turkey, 67 percent of total foreign ownership in the transport industry originates from the EU.

Many countries from the Eastern Partnership are missing, but it can be inferred that the EU is an important player here as well, as judged by the high EU shares in total foreign shares in Belarus, Moldova and Ukraine. In the Southern Neighbourhood, the ownership structure is quite mixed. For example, the EU is the dominant foreign player in Egypt and Israel, but not in Lebanon. Here, the dominant foreign actor is the US, with 67 percent of the total foreign stake in the transport industry.

FIGURE 43 The EU is by far the most important foreign actor in the EU neighbourhood countries in terms of transport connectivity



Note: Share of EU, US and Russian ownership in total foreign ownership in warehousing and support activities for transportation, in 2020. Comparable data for China are not available. Ownership attributed to a foreign country is calculated as employment in companies with ultimate owner in that country relative to the total employment in all foreign-owned firms. Foreign firms' employees are also weighted by the size of foreign ownership, meaning that firms that have a higher share of foreign ownership are weighted more than firms that have a lower share of foreign ownership. A smaller number of firms have missing employment and/or foreign ownership figures, which is why they are not used in the calculation. Albania, Algeria, Azerbaijan, Georgia, Kosovo, Libya, Morocco, Palestine, Syria and Tunisia are missing in the Orbis dataset.
Source: Own calculation based on the Orbis Bureau Van Dijk dataset. | © Bertelsmann Stiftung and wiiv.

For many of the countries that are missing in the Orbis dataset, desk research suggests that the EU is again the most important player in terms of transport connectivity. In 2018, the European Commission launched the African-Europe Alliance for Sustainable Investment and Jobs, one of whose objectives was to strengthen the transport connectivity between Africa and the EU as well as within Africa.²⁰ This approach, under the umbrella of trans-Mediterranean connectivity, consists of three Europe-Africa “corridors” centred on Algeria, Egypt and Morocco (Tanchum 2020). Individual countries have also engaged in bilateral agreements with the EU. Algeria signed a cooperation agreement with the European Investment Bank (EIB) in 2017, whose aim is the reinforcement of security aspects along the Trans-

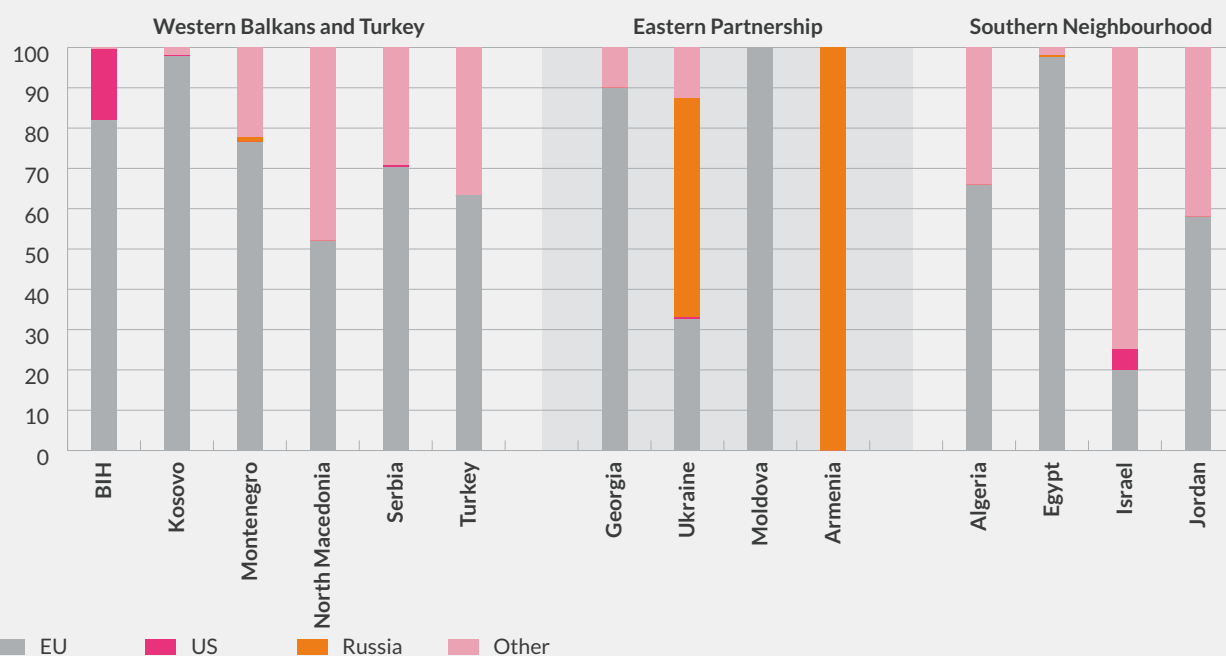
Saharan Highway.²¹ Further cooperation with the EU involves that with the European Commission, which funds road development in Algeria and its Port of Bejaia (€2.5 million). Likewise, the EIB and the EU supported Tunisia by financing the construction of a 98-kilometre motorway in 2002 (€120 million).²² FDI in Tunisia is also focused on improving the country’s infrastructural network. Furthermore, Morocco and the EU signed an aviation agreement in 2006, which replaced all the bilateral agreements that Morocco previously had with individual EU states (European Commission 2006). The agreement is “richer” in its content than the conventional aviation agreement, as it encompasses flight safety, competition, state aid, and both consumer and environmental protection. The agreement also encourages cross investment

20 For more information, see European Commission 2020.

21 For more information, see EIB 2017.

22 For more information, see EIB 2002.

FIGURE 44 The EU is the dominant player in the EU neighbourhood countries in telecommunications, although Russia is also big in some Eastern Partnership countries



Note: Share of EU, US and Russian share of foreign ownership in telecommunication industry, in 2020. Comparable data for China are not available. Ownership attributed to a foreign country is calculated as employment in companies with ultimate owner in that country, relative to the total employment in all foreign-owned firms. Foreign firms' employees are also weighted by the size of foreign ownership, meaning that firms that have a higher share of foreign ownership are weighted more than firms that have a lower share of foreign ownership. Albania, Algeria, Armenia, Azerbaijan, Libya, Morocco, Palestine, Syria and Tunisia are missing in the Orbis dataset.
Source: own calculation based on the Orbis Bureau Van Dijk dataset. | © Bertelsmann Stiftung and wiiw.

between the EU and Morocco. More recently, the EIB and Morocco signed an €85 million contract to support the digitalisation of motorway infrastructure.²³

Some Eastern Partnership countries missing in the Orbis dataset also seem to have strong transport connectivity with the EU. For example, the EU signed an aviation agreement with Armenia in 2016 to create a Common Aviation Area between the EU and Armenia, whereby Armenia obliges itself to switch to using EU aviation rules. This agreement also provides business opportunities for European companies.²⁴ As one of the historical Silk Road countries, Azerbaijan also has a long history of cooperation in the transport sector with the EU dating back to the 1990s.

Although it does not appear in the data, China's influence in the transport sector in the Southern Neighbourhood has been growing (Tanchum 2021). China was involved in building a rail line in one of Egypt's Red Sea ports, while Egypt increased its total container handling capacity to partner more with the Greek port of Piraeus in 2020, whose operator is the China COSCO Shipping Corporation. China was involved in the construction of Algeria's East-West Highway, while Algeria agreed to participate in Beijing's Belt and Road Initiative in 2019. The same holds true for the Western Balkan economies. For example, the China Road and Bridge Corporation (CRBC) built the first (41-kilometre-long) highway in Montenegro. And the same company is building a highspeed railway towards Hungary in southern Serbia.

²³ For more information, see EIB 2021.

²⁴ For more information, see European Commission 2021.

Turning to the telecommunication sector, Figure 44 reveals that the EU is a dominant player in this sector as well. The share of EU ownership in telecommunication is very high across most of the countries for which data are available. In the Western Balkans, these shares range from 52 percent in North Macedonia to 98 percent in Kosovo, while other peers and rivals are not even present. The exception is Bosnia and Herzegovina, where the second dominant player in the telecommunication sector is the US. Turkey also has a large share of EU foreign ownership, which accounts for 63 percent of total foreign ownership. The same holds true for other Eastern Partnership and Southern Neighbourhood countries. An exception (until 2020) was Ukraine, where Russia accounts for over 50 percent of total foreign ownership in the telecommunication industry, as compared to the 33 percent owned by the EU. Another prominent exception is Armenia, where the telecommunication network service is 100 percent owned by the Russian company Rostelecom.

VII.3 Foreign ownership of strategically important infrastructure

Since purchases of critical infrastructure might be driven by both commercial (e.g. collecting rents) and political (e.g. obtaining power) reasons, it is helpful to analyse

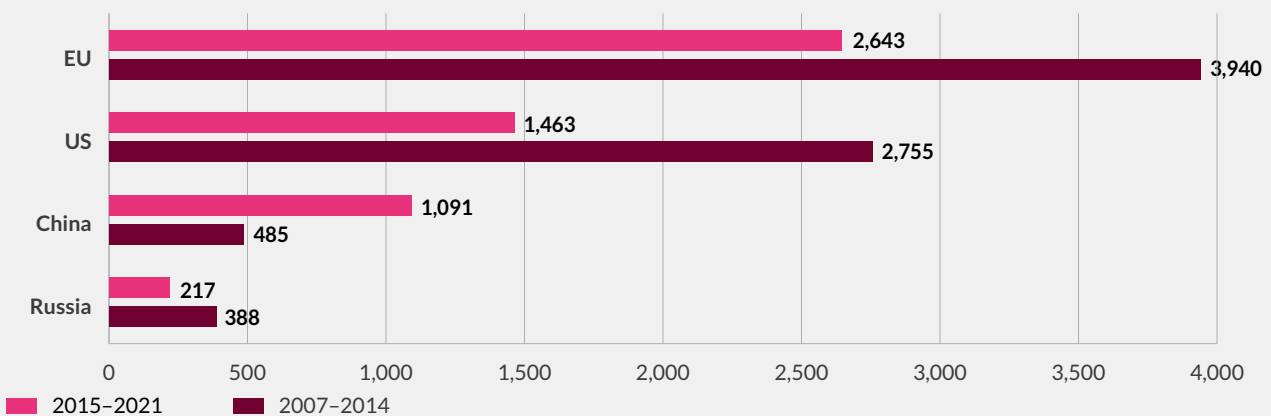
investments in critical infrastructure in the context of recent trends in global investment. To screen for a politically motivated interest in investment from a dedicated power in the EU neighbouring countries, it is useful to identify whether or not the investment growth to the region of interest was above the aggregate growth rates. To do so, it is first helpful to discuss investments in selected asset classes in the context of global investment flows.

Global total outward FDI by the EU and its peers and rivals reveal contrasting trends. As Figure 45 shows, the global FDI flows began declining in 2014, although China was an exception. In the 2015–2021 period, Chinese outward FDI volumes more than doubled compared to the 2008–2014 period. Should this be the case, China’s FDI was expanding even faster than its GDP was growing (125 percent FDI growth versus 68 percent GDP growth, both at current USD prices).²⁵

Simultaneously comparing the presence of FDI by regions and industries is harder to do because most of the data on investments are proprietary. We use data from the Financial Times database “fDi Markets” on greenfield investments as

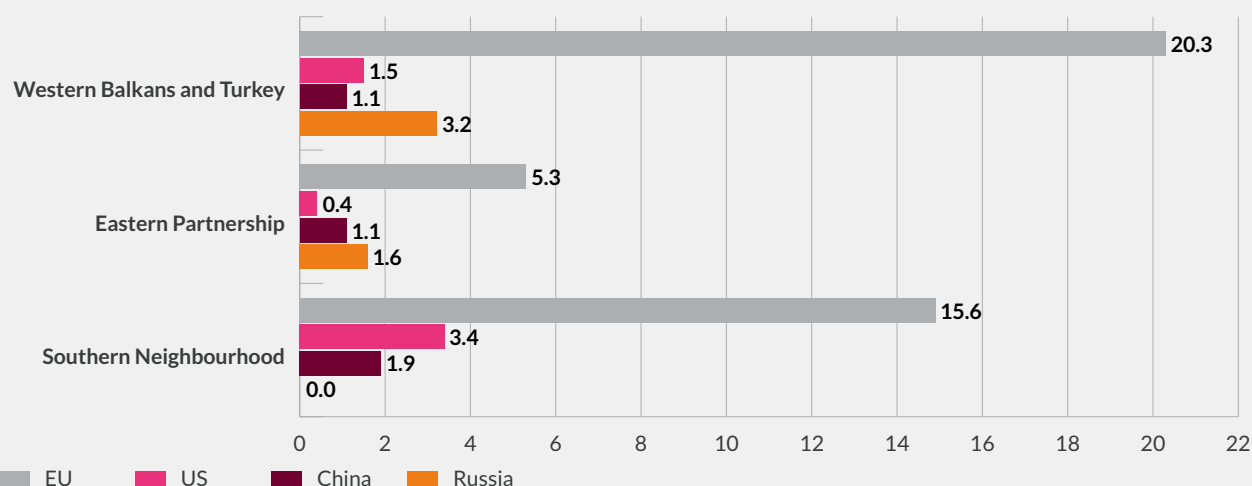
²⁵ It is worth noting, however, that the gross outward FDI flows are prone to double-counting due to round-tripping of assets via jurisdictions with favourable legal and tax regimes (e.g. Hong Kong is the typical intermediary for the Chinese enterprises). However, as long as the share of the intermediary deals in capital movements remained stable, the growth rates will be correct.

FIGURE 45 Chinese outward FDI has been increasing, while that of most others is declining



Note: Total outward FDI of the EU and its peers and rivals, sum of flows for selected periods, in USD bn. Sources: OECD, fDi markets. | © Bertelsmann Stiftung and wiw.

FIGURE 46 EU remains the dominant investor in greenfield infrastructure projects in its neighbouring countries



Note: Greenfield Investments in infrastructure by the recipient region and investor country, 2008–2021, in USD bn.
Sources: OECD, fDi Markets. | © Bertelsmann Stiftung and wiiv.

a proxy for the relative presence of countries in the region while assuming that the greenfield investment structure correctly represents the overall investment patterns.²⁶ Under this assumption, the EU remains dominant in all its neighbouring countries, accounting for more than a half of the greenfield infrastructure investments, although the volumes in the Eastern Partnership countries are markedly lower than those in the other two sub-regions (Figure 46). Regional differentiation is more pronounced for Russia and the US. Russia, for instance, had a bigger presence in the Western Balkans and Turkey, where most of the investments originated in the pre-2014 period and with petroleum refineries and gasoline stations being the primary target industry. The pattern is reversed in the Southern Neighbourhood countries, where the US came in second behind the EU, while Russia had few to no greenfield investments. At the same time, while lagging far behind the leaders, China had a more diversified portfolio, with its

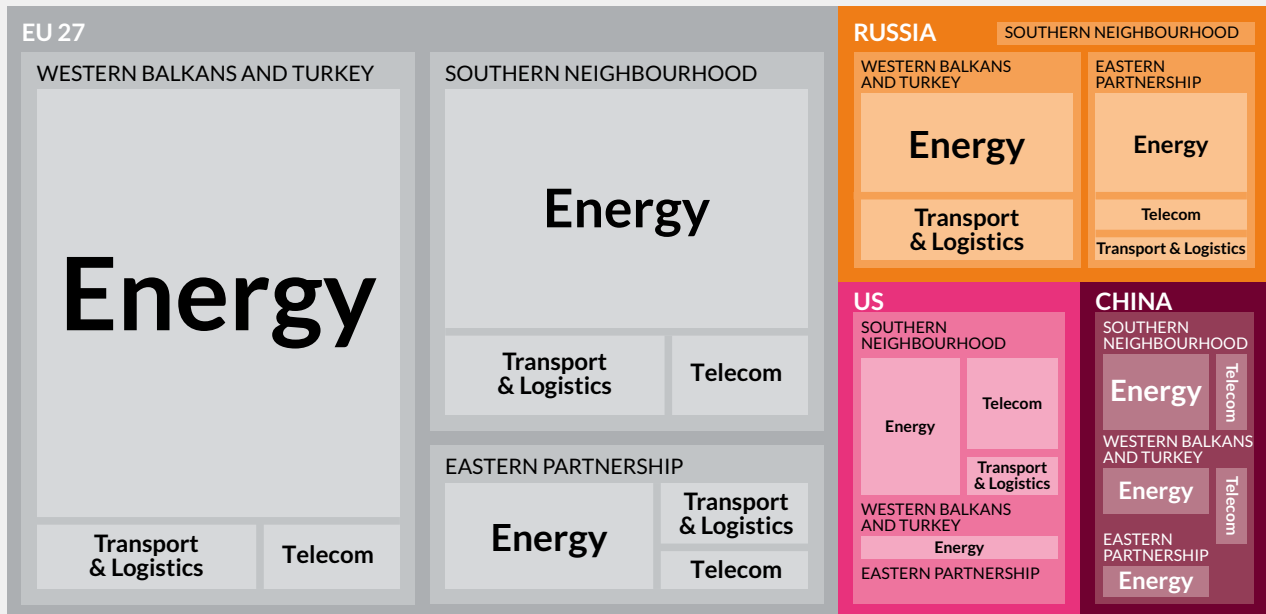
²⁶ One has to be aware that the database is largely compiled based on public statements. This means that some minor deals might be poorly represented due to low media coverage. The database also does not differentiate between the complete and incomplete projects and cases of divestment. It is also worth noting that the greenfield investments provide only the minor share of the total investment amounts and are not random since the decisions to develop a project from the ground up are determined by economic benefits compared to a direct acquisition of available assets. Therefore, these conclusions drawn upon the greenfield investments do not necessarily hold with the aggregate data.

investments being almost evenly placed in each of the sub-regions, although the projects with the largest investment volumes were set up in the Southern Neighbourhood.

One key result is that the industry structure of the greenfield infrastructure investments is heavily skewed towards the energy sector for all investors except the US (Figure 47). Given the industry specifics, this is an expected outcome. For example, energy production is an industry with high fixed costs and steadily growing demand. Absent political instability, investing in energy production is a low-risk affair with a predictable business model and a secure future income stream.

However, there is a certain degree of differentiation among the EU and its peers and rivals. Whereas the EU countries tend to slightly prefer transport and logistics (airline, container shipping and terminal operating companies, e.g. Ryanair, Maersk and Deutsche Bahn) compared to telecommunications (internet and mobile service providers, e.g. Vivendi, Deutsche Telekom, Orange) everywhere, Russia demonstrates a clear differentiation across the industry-regional dimension. For example, transport and logistics are present in Western Balkans and Turkey (gas pipelines and terminals related to the South Stream projects), while telecommunications are prevalent in the Eastern

FIGURE 47 Energy is the preferred area of infrastructure investment for the EU and its peers and rivals in the EU neighbourhood countries



Note: Industry composition of greenfield investments to the EU's neighboring countries. The rectangle sizes roughly correspond to the investment volumes in current USD. Please note that the sizes of the rectangles do not reflect actual quantity ratios. For exact proportions, please consult the interactive version available online at: <https://public.flourish.studio/visualisation/10918508/>. Source: fDi Markets. | © Bertelsmann Stiftung and wiw.

Partnership countries (mobile telephony and wireless communication, e.g. MTS).

The US tends to favour investments in telecommunications, which is most pronounced in the Southern Neighbourhood, where it has almost the same share as it does in its energy portfolio. This outcome is driven by the close integration of the Israeli-US IT sector. In fact, 95 percent of the US greenfield telecom investments in the sub-region go to Israel, with the main investors being the global IT companies (Alphabet, Amazon, Microsoft) and with a significant focus being on R&D related to cloud services. Contrary to those of the other peers and rivals, Chinese greenfield investments are almost exclusively focused on the energy sector, with both transport and telecom representing only a marginal share of the portfolio.

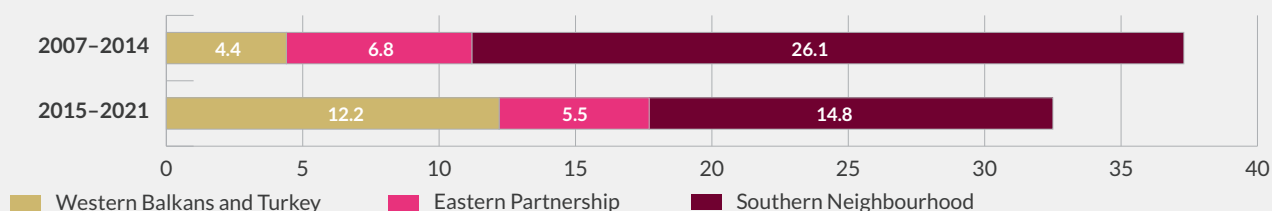
As noted above, however, the greenfield investments might provide a poor approximation of the overall investment

pattern. This is particularly true for Chinese companies, which instead tend to focus on asset acquisition, loans and asset leasing (Schwarzenberg 2022). To address that, we use the China Global Investment Tracker, which covers both asset acquisition and greenfield investments.²⁷

The tracker provides a different view of the composition and evolution of Chinese investments in the region (Figure 48). First, the overall amounts declined over the observed period if measured in current USD, which implies a decline in real terms. In other words, Chinese companies prefer to invest in other parts of the world. Second, one can notice a geographical shift in the investment flows. The share of the Western Balkans and Turkey, which had been below that of the Eastern Partnership countries, almost tripled in size to be nearly on par with the amounts invested in the Southern Neighbourhood.

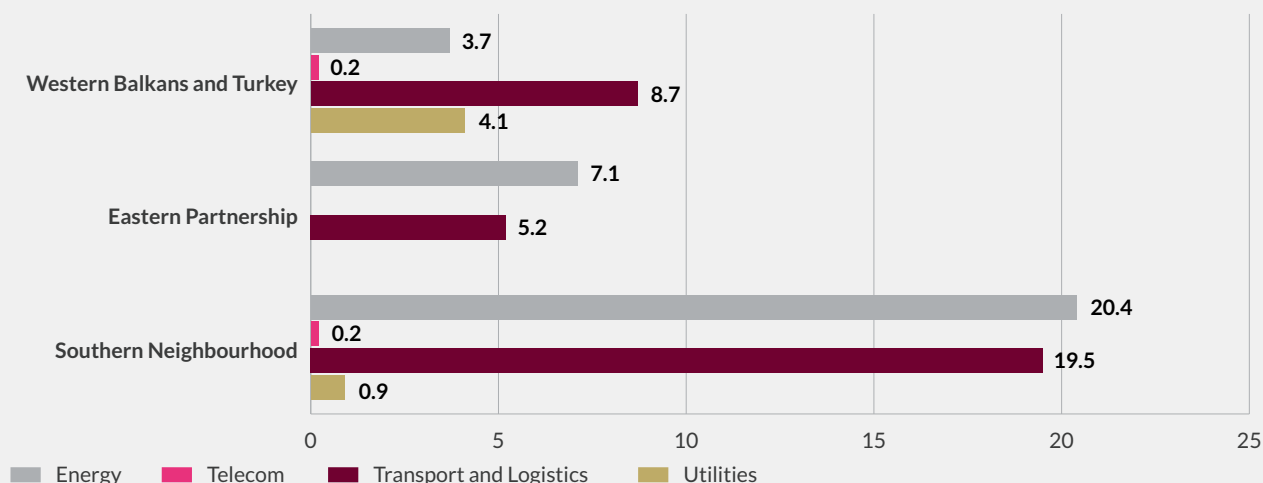
²⁷ Note that the tracker only reports deals worth more than \$100 million and does not report divestments from existing projects.

FIGURE 48 China has turned much more of its attention towards Turkey and the Western Balkans in recent years



Note: Infrastructure investments of China into EU neighbourhood countries, 2008-2021, in USD bn.
Source: China Global Investment Tracker. | © Bertelsmann Stiftung and wiw.

FIGURE 49 China shows a high level of interest in transport and logistics investments across the EU neighbourhood countries



Note: Infrastructure investments of China into the EU neighbourhood countries, 2008-2021, by industry, in USD bn.
Source: China Global Investment Tracker. | © Bertelsmann Stiftung and wiw.

A third important finding from these data is that the industry composition of the investment flows is markedly different compared to the greenfield FDI, with transport and logistics accounting for the greater share of portfolio than the energy sector (Figure 49). This is most pronounced in the Western Balkans and Turkey, where the Chinese Communications Construction Company acquired a contract worth \$3.8 billion in the utilities sector.²⁸ Investments in the sub-region occur predominantly

in Serbia, where the political leadership was active in attracting Chinese FDI for local infrastructure projects to build railways and highways.

According to the database, Chinese companies are also more engaged in acquiring enterprises that manage ports and harbours in the Southern Neighbourhood, although construction of railways and highways still dominates the investment flows (\$12.7 billion in construction versus \$5 billion in the shipping industry). In the Eastern Partnership countries, there was a clear differentiation of the industry composition by the recipient country. The transport

²⁸ Although the China Global Investment Tracker does not always include the counterparty details, the large contract volume suggests that it relates to the upgrade of the sewage system in Serbia. See GCR 2021.

and construction investments largely went to Belarus and Georgia, whereas energy investments were mostly prevalent in Ukraine, with the emphasis being on renewable energy sources.

Keeping in mind the limits regarding the quality and coverage of the underlying data sources, we can draw a few conclusions regarding the investment activities in critical industries of the EU's neighbouring countries. For the neighbourhood, energy appears to be the key target industry for investments of the EU and its peers and rivals as well as where we expect to see most of the competition occur in the near future. There is, however, an important differentiation in investment strategies across specific sub-regions, as the EU appears to maintain equal, although minor shares of investment flows into the telecom and transport industries in all sub-regions.

Russia used to heavily invest in energy-related transport and storage capacities in the Western Balkans and in telecom in the Eastern Partnership countries (specifically Ukraine). This will certainly decline. The gloomy prospects of economic growth in Russia, its increasing technological backwardness, and the risks of cooperation associated with the sanctions under the current political leadership collectively leave little room for active outward investments.

As noted above, the US is particularly active in Israel in the telecommunications industry. However, the nature of these investments is different from the rest of the sample. A significant share of these investments is guided by the giant tech companies, which aim to create new products and deliver them globally upon success. This is likely the result of Israeli's effective policies to promote its IT industry, the size of its highly skilled labour force, and close political cooperation between the US and Israel on key foreign policy issues.

For China, the EU's neighbouring countries do not appear to be a priority in its investment strategy. While China's total outward FDI apparently grew more rapidly than its GDP, the investment volumes in the region have remained virtually the same both before and after the announcement of the Belt and Road Initiative in September 2013. China appears to have a somewhat stronger focus on construction-related investments than on energy investments, which is particularly visible in the Western Balkans countries.

Although this could be the result of a deliberate strategy to acquire strategic assets in the EU's neighbouring countries, it could also be a result of purely economic decision-making. With the local Chinese growth being heavily pushed by the construction industry, Chinese companies are likely to have a comparative – if not an absolute²⁹ – advantage in civil engineering, which is necessary for capital-intensive projects as well as to maintain or upgrade large-scale infrastructure objects.

²⁹ Under "absolute advantage", economists understand the greater productivity of country X to country Y in the same industry. Under "relative advantage", economists understand the greater productivity of industry A over industry B within the same country.

VIII. Labour mobility

In this chapter, we set out to measure the degree of interconnectivity via labour mobility between the EU and its neighbouring regions. First, we identify the main push and pull factors driving labour mobility between the EU and its neighbouring regions. Second, we use work permit data to assess how reliant the EU is on its neighbouring regions for workers as well as how this compares to its peers and rivals (where data are available). Third, we analyse changing patterns of labour migration among highly skilled workers as well as “virtual” migration, which entails workers’ staying in their home country but working online for an employer abroad. Finally, we map out future patterns of EU labour demand and assess the degree to which the neighbouring regions will continue to be able to fill gaps in the EU labour market.³⁰

We find that strong labour interconnectivity exists, with large numbers of workers from the neighbouring regions being employed in the EU. Push/pull factors are strong, reflecting high income differentials, persistent EU labour market gaps, and high unemployment rates in most of the neighbouring countries. Various legislative developments on the EU side have also helped to make labour mobility easier. Moreover, this interconnectivity has increased over time, both in absolute and relative terms, particularly due to Ukrainian workers. For its neighbours, the EU is the main destination for workers – and increasingly so. Even in the Eastern Partnership, the EU is an increasingly attractive

alternative destination to Russia for workers moving abroad. This might not be a good thing for the neighbours themselves, as they lose some of their most qualified people (“brain drain”), which naturally has negative consequences for the domestic economy. Moreover, many of the workers arriving from the neighbouring regions may end up working in jobs in the EU that are below their qualifications (“brain waste”). The EU also faces competition for these workers, especially from the US.

Although we can only get a partial picture of the types of workers arriving in the EU, we do find that the EU is attracting highly skilled and virtual workers from the neighbouring regions in increasing numbers. Owing especially to the pandemic, the world of work is changing and, with it, labour mobility. First, digitalisation and the automation of certain tasks have shifted the demand for certain jobs, and new forms of employment and labour demand are emerging. This, among other factors, is helping the EU to meet some of its labour market needs. Second, online job platforms are helping many companies to cover part of their needs with foreign-based workers. This also unlocks new employment pathways to workers in the EU’s neighbouring countries.

In the future, as the EU’s working-age population declines, its economy will increasingly need workers from abroad. If these workers do not show up, and if the EU does not achieve a lasting increase in its rate of productivity growth, then economic growth will slow. We find that, due to their own demographic challenges, many neighbouring countries will be just as unable to fill EU labour market gaps in the 2020s as they were in the past. Only the Southern Neighbourhood, where demographic trends are more positive, will be able to provide a large number of workers to the EU in the future.

³⁰ The data used in this section are from before Russia’s February 2022 invasion of Ukraine. Any analysis of current labour mobility with regards to Ukraine – and, even more so, of future projections regarding Ukrainian workers in the EU – are hugely uncertain given the impossibility of making definitive assumptions about how much longer the war will last or how it will end. Our projections in this chapter assume a successful reconstruction of Ukraine at the end of the war and a continuation of pre-war demographic trends, although it is highly uncertain whether this will actually happen.

VIII.1 Push/pull factors

There are several important push/pull factors that cause workers from the EU’s neighbouring countries to head to the bloc. While most of the neighbouring countries have official unemployment rates substantially higher than those in the EU, serious labour shortages have emerged in the EU over the past decades, driving up labour demand further. Income differentials between most neighbouring countries and the EU also remain vast. In addition, existing networks are very important factors to take into consideration when deciding whether to migrate for work, and the EU is already host to a large population from its neighbourhood.

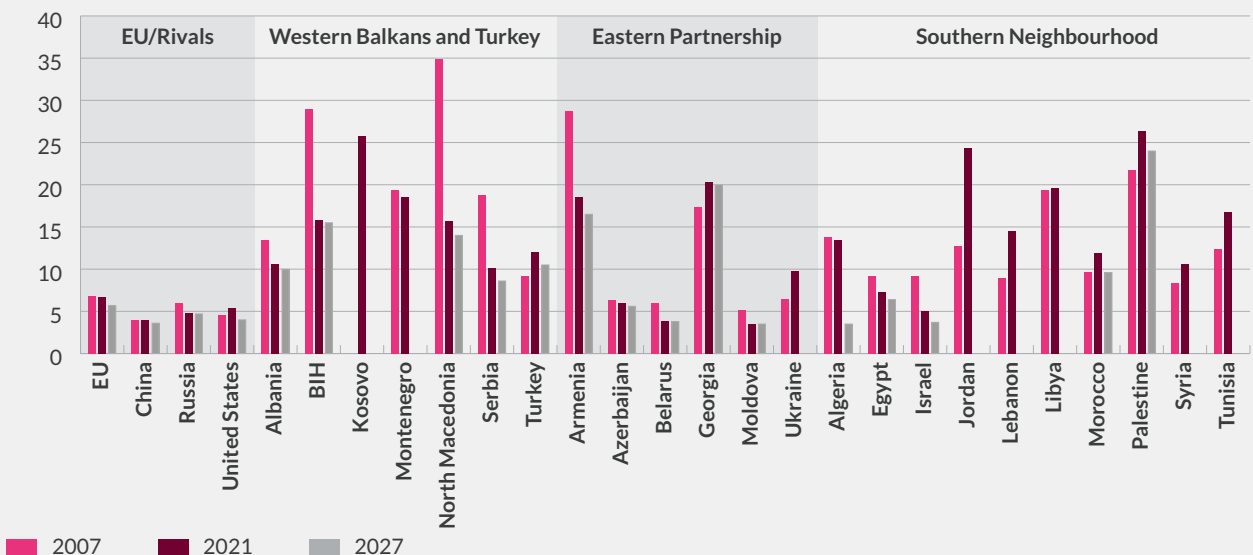
This is unlikely to change in the coming years. Meagre employment opportunities and low wages will continue to push people to look for a job abroad, with income differentials and existing networks being very strong determinants. Expectations about earnings and employment opportunities are that the gaps between the EU and its neighbouring countries will not narrow to a degree that would significantly discourage emigration to the EU. Available forecasts from the IMF and World Bank show that unemployment rates in the EU are and will remain

substantially lower than in almost all its neighbouring countries until at least 2027 (Figure 50).

Income gaps and earning prospects will continue to pull migrants from the neighbouring countries to the EU (Figure 51). By 2027, the income levels in the Eastern Partnership countries will continue to be three times lower than in the EU and the gap will be widening in some of the countries, such as Belarus and Azerbaijan. Among Western Balkan countries and Turkey, the income gap with the EU is declining, but this is nevertheless happening very slowly and the gap remains high enough to justify expectations of further outward migration. As concerns the Southern Neighbourhood, the income gap is not closing and has even been widening in some countries, except for in Israel. As a result, push and pull factors will continue to drive outward mobility from the EU’s neighbouring countries towards the EU.

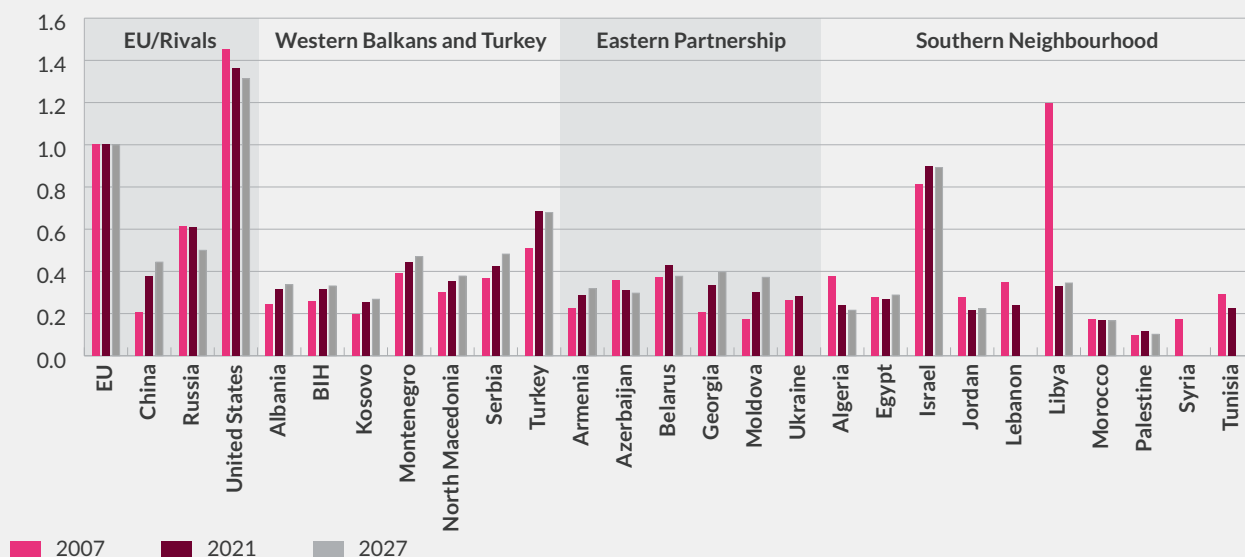
Aside from different labour market prospects and large income differentials, many other factors have and will continue to drive labour mobility from the EU’s neighbouring countries to the bloc. The literature indicates that labour mobility is dependent on migratory networks, geographical proximity, and differences in sending and

FIGURE 50 Unemployment rates in EU neighbourhood countries are high and will remain so relative to the EU



Note: Unemployment rates in 2005, 2020 and 2027. IMF forecasts cover the 2022–2027 period. Sources: IMF World Economic Outlook (April 2022), World Bank 2022. | © Bertelsmann Stiftung and wiiw.

FIGURE 51 Income levels in EU neighbourhood countries relative to the EU will remain low, which will continue to pull emigrants to the EU



Note: Income ratio relative to the EU (EU = 1). Income level has been proxied by GDP per capita in purchasing power parity. IMF forecasts cover the 2022–2027 period. Data unavailable for Lebanon beginning in 2021 and for Ukraine beginning in 2022. No data available for Syria.

Sources: Own elaboration using IMF World Economic Outlook (October 2022), World Bank 2022. | © Bertelsmann Stiftung and wiiv.

destination countries in demographic, economic and political terms (World Bank 2018; Czaika and Reinprecht 2020; Bossavie et al. 2022). More recently, climate-, war- and conflict-related events as well as changes in migration policies have also been important drivers of mobility. Meanwhile, on the EU side, extreme labour shortages have prompted businesses to intensively lobby to make it easier for them to employ people from outside the bloc, with a great deal of focus being placed on the EU's neighbouring countries given their proximity. Visa liberalisation and other legislation has been introduced to make it easier to bring workers to the EU.

VIII.2 Measuring labour mobility

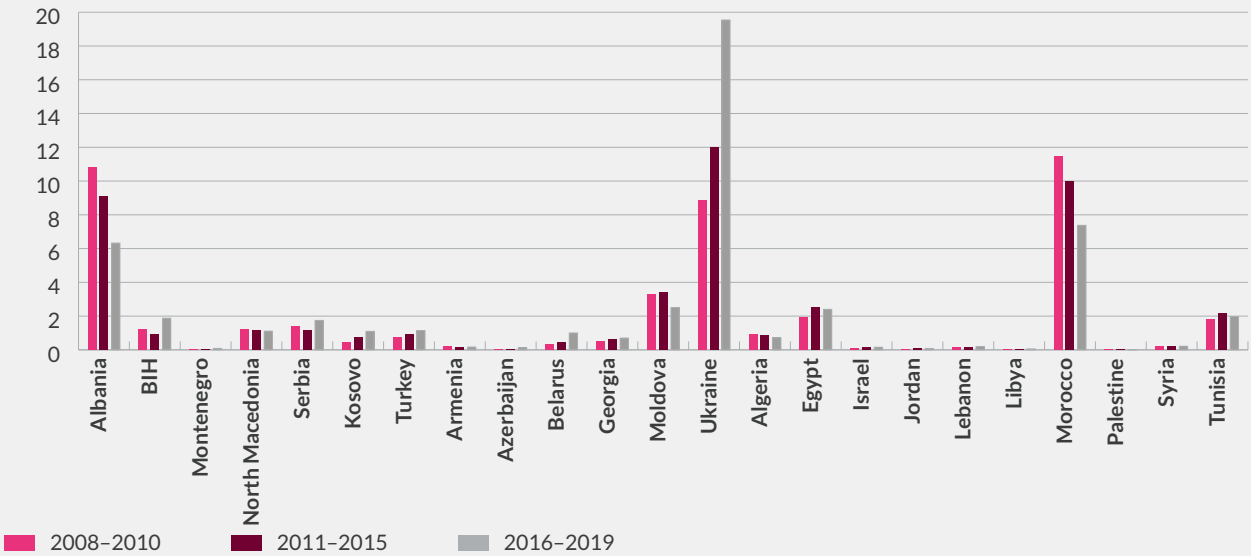
Data on stocks of workers are not available in the same way as data on stocks of migrants. Therefore, to specifically address the issue of labour mobility, we focused on residence permits for work purposes issued in the EU

during the 2008–2020 period.³¹ Over this period, several of the EU's neighbouring countries have benefited from visa liberalisation and changes in migration policy applied by the EU to its neighbouring countries. This, in turn, has been reflected in an intensification of mobility for work purposes to the EU from its neighbouring countries.

We find that the EU has come to rely ever more on workers from its neighbourhood since 2008, both in absolute and relative terms. In the 2016–2019 period, EU work permits issued to labour migrants from its neighbouring countries reached 1.55 million per year on average, up from 1.49 million per year between 2008 and 2010. In the 2016–2019 period, the neighbouring countries accounted for more than 50 percent of EU work permits for non-EU workers, compared with 45 percent in the 2008–2010 period.

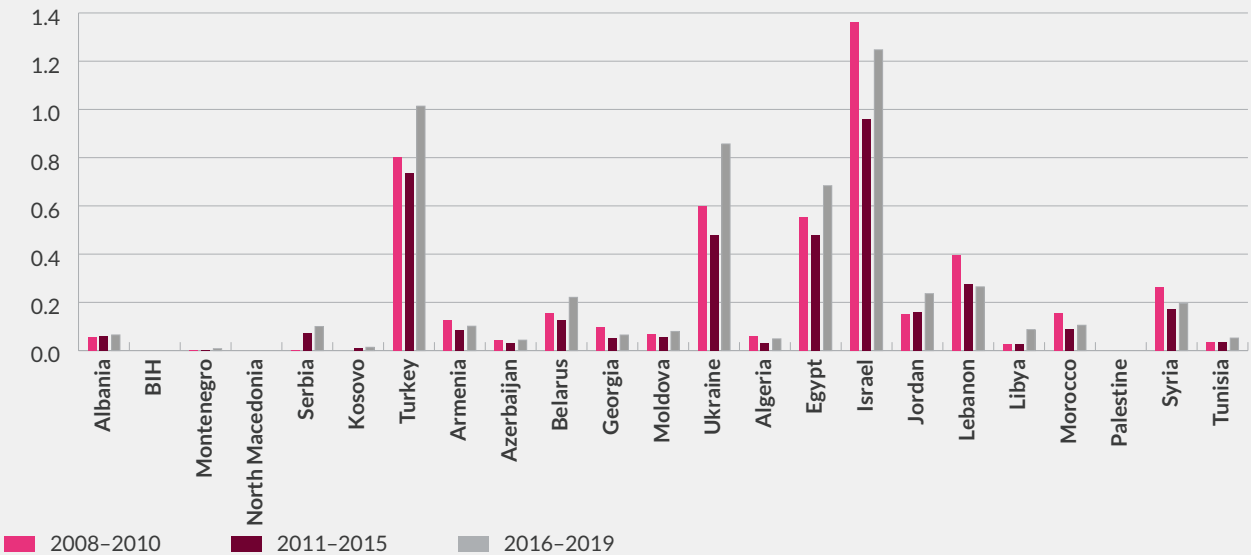
³¹ This prevents a full comparison with the EU's peers and rivals, although we will do this where the data permit; we start from 2008 as data are not available for 2007.

FIGURE 52 Among EU neighbourhood countries, Ukraine stands out as the country with the highest increase in and number of work permits received over the last decade



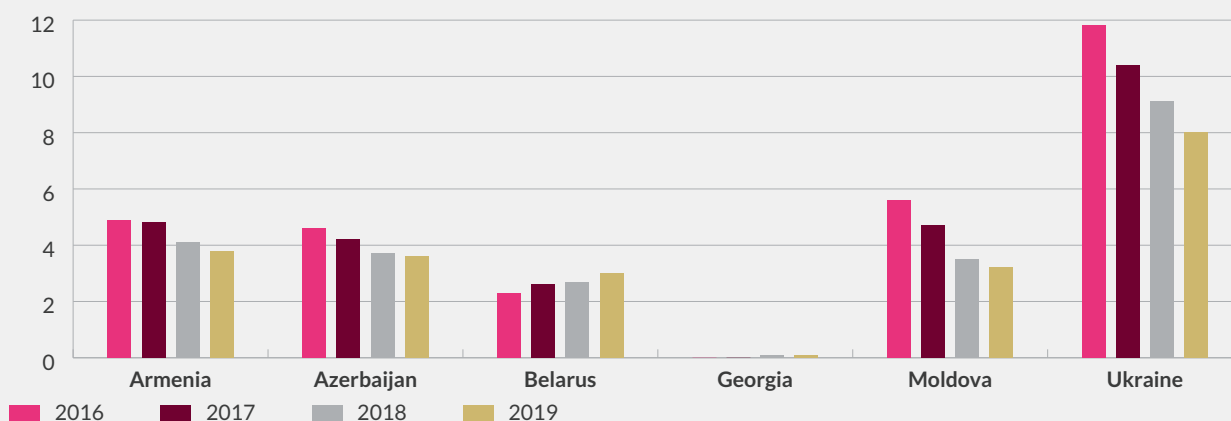
Note: EU data include all valid work permits issued for work purpose to migrants from a specific country of origin (as a percentage of all work permits issued). Source: Own elaboration using Eurostat statistics. | © Bertelsmann Stiftung and wiiw.

FIGURE 53 Work permits issued in the US to immigrants from EU neighbouring countries have increased for several countries (particularly Egypt, Turkey and Ukraine)



Note: US data include first work permits issued for work purpose to migrants from a specific country of origin (as a percentage of all work permits issued). Source: Own elaboration using Yearbooks of Immigration Statistics, U.S. Department of Homeland Security. | © Bertelsmann Stiftung and wiiw.

FIGURE 54 The share of work permits issued by Russia has declined for many Eastern Partnership countries



Note: Work permits issued by Russia to Eastern Partnership countries by year. Russian data include all valid permits issued for work purpose to migrants from a specific country of origin (as a percentage of all work permits issued). The information reported here is for the 2016–2019 period. We did not report the data for 2020–2021 period (though the data were available) because these were the first years of the Covid-19 pandemic, when mobility was limited due to the restrictions imposed on it.

Source: Own elaboration using data from the Ministry of Internal Affairs of the Russian Federation. <https://мвд.рф/деятельност/statistics/migracinnaya/item/28104344/>. | © Bertelsmann Stiftung and wiiv.

Between 2008 and 2020, the strongest increase in work permits issued was to Eastern Partnership countries. In the 2016–2019 period, the EU issued 740,000 work permits per year on average to people from this sub-region, up from 490,000 in the 2008–2010 period. Between 2016 and 2019, around a quarter of all work permits issued to non-EU workers went to those coming from the Eastern Partnership. By far the main driver of this was Ukraine, which accounted for 600,000 per year in the 2016–2019 period, or double the level of the 2008–2010 period (Figure 52). Even before Russia's 2022 invasion, Ukrainian workers were becoming structurally important in many EU labour markets and helping to offset serious labour shortages in several countries, such as Poland and Czechia.

Both the Western Balkans and Turkey sub-region and the Southern Neighbourhood each accounted for around 13 percent of EU work permits issued between 2016 and 2019. Workers from the Western Balkans have found it easier to work in Germany since the Western Balkan Regulation (Section 26.2 of the German Employment Regulation) was introduced in Germany in October 2015, which provides free labour market access. The results can be seen in strong increases in work permits issued especially to Bosnians, Kosovans and Serbians (Figure 52). Meanwhile, in the

Southern Neighbourhood, workers from Morocco remain the most important. However, while their number has declined since 2008, permits issued to workers from Egypt and Tunisia have increased.

On the whole, labour mobility interconnectivity with the EU's neighbouring regions is much more significant in the case of the EU than of any of its peers or rivals. However, although the share of migrant workers from the EU's neighbouring countries is relatively low in the US, the contributions of Egypt, Turkey and Ukraine to the US labour market are expanding quickly (Figure 53). At least until 2019, Russia was still a very important destination for migrant workers from the Eastern Partnership. However, the share arriving in Russia from Moldova and Ukraine declined in the 2016–19 period, which likely reflects easier access for workers from these countries to EU labour markets offering better opportunities (Figure 54).

VIII.3 Skilled and virtual labour mobility

Understanding which types of workers arrive in the EU from its neighbouring countries, as well as how this compares to its peers and rivals, will also give us some insights into the nature of the labour mobility interconnectivity. Although these data are only partial, we have two sources that can give us a better understanding: high-skilled migration and so-called “virtual” migration. To us, these two elements seem to be especially important to consider in the current context, both because of their relevance in the aftermath of the pandemic and because they offer insights into key elements of interconnectivity in a changing global economy.

Data on the skills of migrants have often faced limitations, especially as concerns data at the pair-country level. However, indicators recently developed by a partnership of the World Bank Group and LinkedIn offer new insights into the mobility of highly skilled workers. Skilled labour migration has been calculated using LinkedIn data on the self-reported location of the LinkedIn member as well as any changes recorded or reported over time by the member. Net migration flows for a given country have been normalised using the total number of LinkedIn members for that country multiplied by 10,000. Furthermore, migration flows for different industries have been calculated. LinkedIn data seem to have a good coverage and represent 21.4 percent of all migration flows in the OECD dataset (Zhu et al. 2018).³² So, for this part of analysis, we will be using the novel database produced by the World Bank Group-LinkedIn partnership.

The results for our countries of interest (Figure 55) indicate that skilled workers leave the EU neighbours and head to the EU and, to a lesser extent, the US. China mostly remains a net exporter of labour with the identified skills, while no data are available for Russia. Although we cannot establish with absolute certainty that those skilled workers leaving the EU’s neighbours are heading to the EU, it seems highly likely that this is the case for many of them given the strong migration networks in the EU. The data show that the EU has been able to attract quite a heterogeneous group of

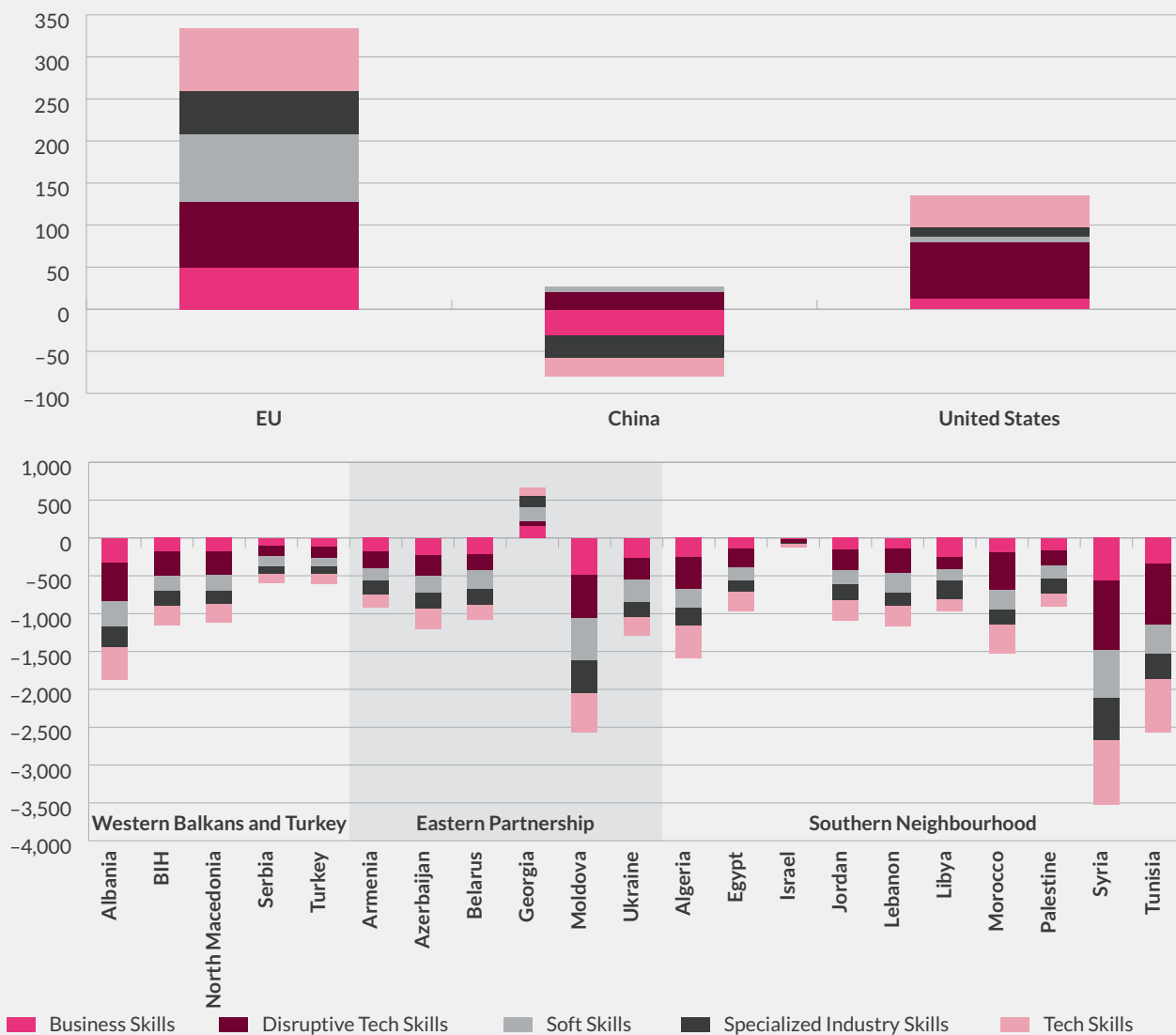
³² Industry coverage of LinkedIn data was tested by comparing International Labour Organization workforce statistics from 2016. It emerged that the greatest coverage by LinkedIn data is in the knowledge-intensive and tradable sectors, specifically: ICT (48 percent); professional, scientific and technical activities (26 percent); mining and quarrying (25 percent); and financial and insurance activities (22 percent).

highly skilled professionals, while the US has mainly been attracting skilled migrants that fall into the group of those with “disruptive tech skills” and “tech skills”.

Almost all EU neighbours are net exporters of skilled workers. Emigration prevailed especially among those groups that mainly correspond to the industry group of highly skilled migrants who moved to the EU and the US in 2019 (e.g. those with “disruptive tech skills” and “tech skills”). The outflow of highly skilled professionals is prevailing in the Western Balkans and Turkey, especially in Albania and Bosnia and Herzegovina. For the Eastern Partnership, the outflow has been relatively higher from Azerbaijan, Moldova and Ukraine, whereas Georgia represents an outlier with a positive net migration of highly skilled LinkedIn members. In fact, Georgia has been gaining particularly from highly skilled migration from the US, which might be explained by its large diaspora in the US, but also by various circular migration schemes implemented in Georgia (ETF 2022: 11). What’s more, Georgia ranks among the top 10 countries in terms of the ease of starting and doing business (taking seventh place in the World Bank’s ease of doing business index from 2020), which is certainly a good reason for many professionals or companies to move and establish their businesses there.

The EU’s ability to attract large numbers of skilled workers from its neighbouring countries is clearly a positive from the EU perspective. However, it is far from clear that this migration benefits the sending countries. Many labour migrants end up working at levels below their qualifications. The relationship between migration and development is complex, with positives and negatives from the perspective of sending countries (Clemens 2011). While countries in Africa gain remittances, they suffer a “brain drain” of professionals to the West. Historically, the literature has shown that this “brain drain” causes sending countries to lose out on productivity spillovers from skilled workers, to have inferior public services because doctors and other professionals leave, and to experience a weakening of their fiscal resources (Grubel and Scott 1966; Bhagwati and Hamada 1974; Kremer 1993). Moreover, even for the labour migrants themselves, the benefits are not always significant. Schiff (2005) has shown that the positive impacts for receiving countries (“brain gain”) are small, while also highlighting the concept of “brain waste”, in which migrants end up working in jobs for which they are overqualified.

FIGURE 55 The EU and the US have been net receivers of skilled professionals, while China and the EU neighbouring countries have been net senders

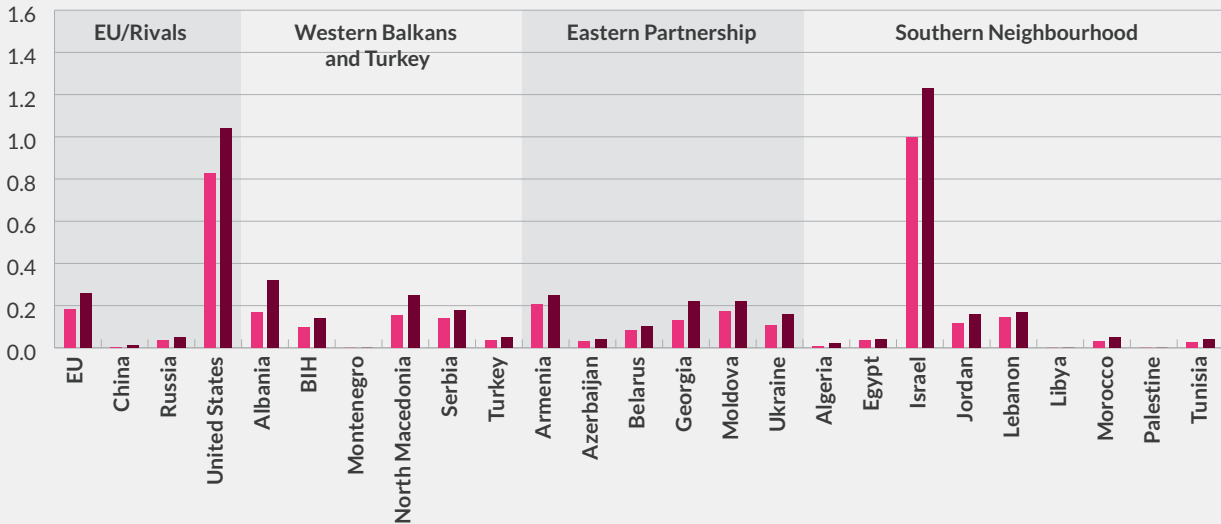


Note: Net labour migration by skills group per 10,000, average for the 2015–2019 period. Skilled migration (i.e. skills gained and lost) is calculated as the net gain or loss of members from a country with a given skill divided by the number of LinkedIn members of that skill group in the target (or selected) country, multiplied by 10,000. Palestine is represented with West Bank and Gaza.

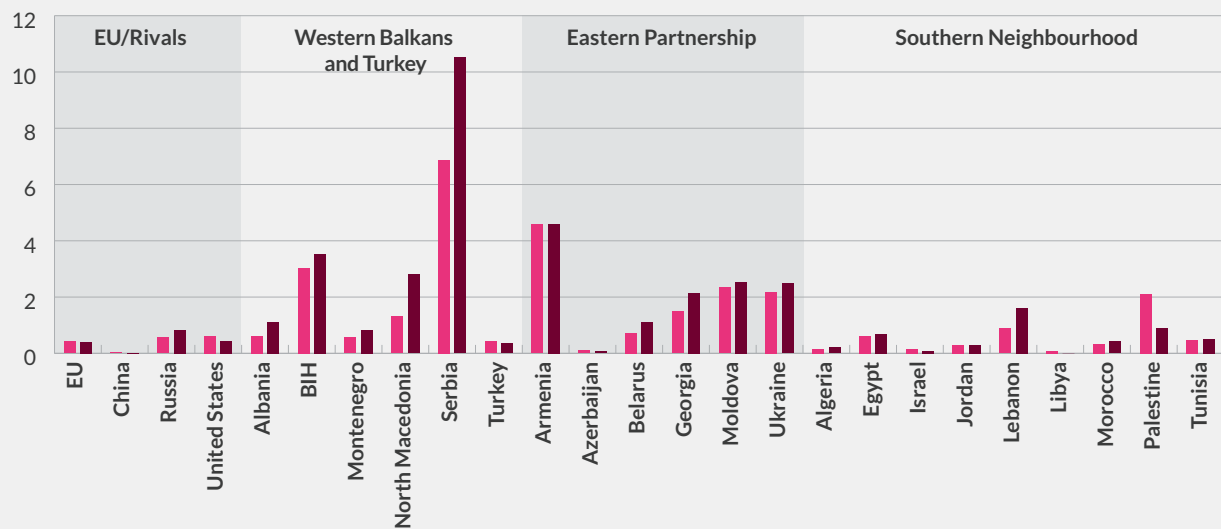
Source: Own elaboration using World Bank Group–LinkedIn Talent migration dataset. | © Bertelsmann Stiftung and wiw.

FIGURE 56 In per capita terms, the highest online labour demand is generated in the EU, Israel and the US, while the online labour supply is higher in the Western Balkan and Eastern Partnership countries

Firms demanding services online: clients, per 10.000 inhabitants



Workers offering services online: workers, per 10.000 inhabitants



2020 2021

Note: Online labour supply and demand, annual average in 2020 and 2021 per 10,000 inhabitants. Data for Kosovo unavailable.
 Source: Own elaboration using the daily statistics of Oxford University's Online Labour Index (<https://ilabour.oii.ox.ac.uk/online-labour-index/>).
 © Bertelsmann Stiftung and wiw.

Our second area of particular focus in this section is “virtual” labour mobility. This has grown in importance given the boost in digitalisation and the rise of online work since the pandemic, which in turn have created new forms of interconnectivity. Online job platforms are gaining more users and prominence, which is driven by wage differences and labour shortages (Baldwin and Forslid 2019: 23).

Accurate statistics about foreign companies that satisfy their demand for workers through foreign-based remote workers are difficult and expensive to attain, although some progress has been made in this direction. For example, this is the case with Online Labour Index (OLI) developed by Oxford University, which we will use to shed light on some recently emerging patterns related to these new forms of employment and telemigrants.

Using the OLI, we try to understand how this is impacting interconnectivity. We look at some recent dynamics regarding the demand for and supply of online jobs, where the demand and supply are coming from, and for what kind of occupational groups. The size of the gig economy, gig work and online job platforms – all of which mainly involve temporary and flexible work arrangements and freelancers – differ across countries. The OLI statistics are updated daily. In addition, we are dealing with different countries with very different population sizes. Therefore, to come up with a comparable indicator across countries, we have aggregated the daily information on online projects and tasks at the annual level (2020 and 2021), normalised it with the population of the respective country, and multiplied it by 10,000.³³ This approach was applied both for tasks and projects offered online by various clients as well as for workers who offered their services online. While the indicator is limited in terms of its ability to capture any incremental effects of online work, it at least allows us to analyse how important this form of employment is for a given country in comparison to others and for which occupational groups (Kässi and Lehdonvirta 2018).

According to the OLI, companies that provide the largest number of vacancies for online jobs are in the US and Israel. Other important clients appear to be in the EU, but also

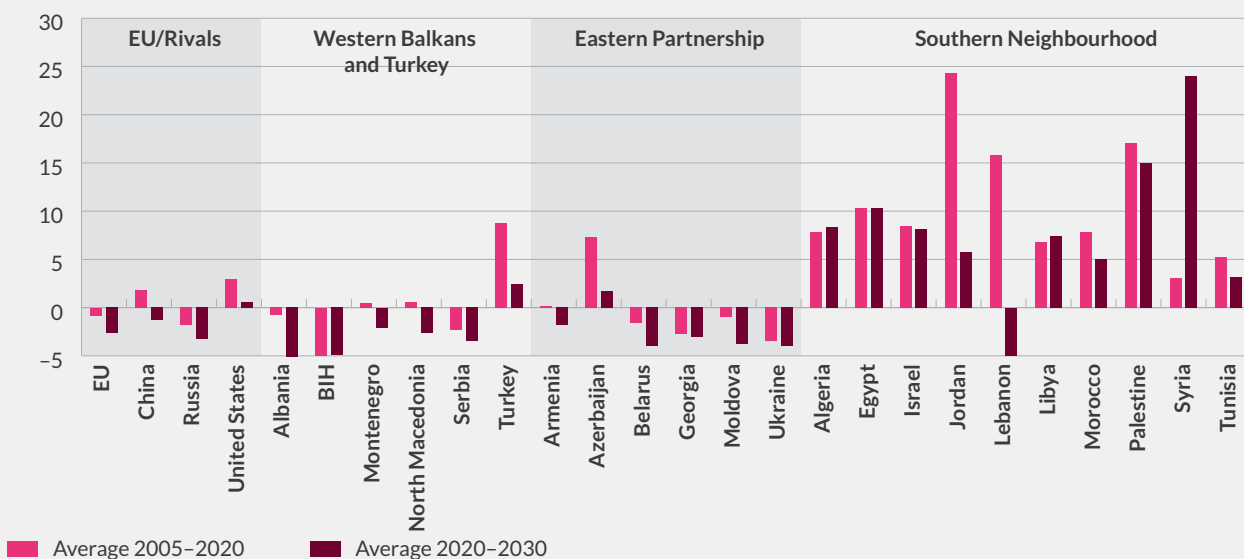
in other Eastern Partnership countries (e.g. Armenia and Moldova) and in Western Balkan countries (e.g. Albania, North Macedonia and Serbia). Therefore, in this respect, the US seems to be much more competitive and better positioned than the EU when it comes to jobs offered via online platforms.

Workers in the EU’s neighbouring countries are quite engaged with online job platforms. This is particularly the case in the Western Balkan countries. In per capita terms, the number of workers offering their services online is among the highest in Bosnia and Herzegovina and Serbia. The ICT sector is expected to be one of the fastest-growing ones in the Western Balkans, and the number of students earning degrees in ICT there is also growing. Although still low, the sector’s contribution to total employment is rising fast. High wage differences might also be a factor when it comes to encouraging many foreign companies to turn to remote workers in this region (ETF 2022: 80). In Eastern Partnership countries, the online workers are more frequently found in Armenia, Moldova and Ukraine. Interestingly, in per capita terms, the most online workers in the Southern Neighbourhood are found in Palestine. This is most likely due to the restricted mobility imposed by Israel and Egypt, which means that online job platforms are frequently used to circumvent such restrictions. For a country in which a quarter of the labour force is unemployed – one of the highest rates among the EU’s neighbouring countries – online job platforms and engagement with international clients is creating new job opportunities, especially among youth, and this is partially thanks to several e-work projects supported by the United Nations Development programme (see, e.g., UNDP 2018).

Using these data, we find evidence of increased interconnectivity between the EU and its neighbours, but also that the EU faces clear competition for these workers from the US and Israel. This is similar to the findings on highly skilled labour migration outlined above. We find that online gig work is mainly coming from companies located in developed countries, such as the EU, Israel and the US. At the same time, workers from across the neighbourhood – but particularly from Turkey and large parts of the Western Balkans and Eastern Partnership – are taking up these employment opportunities. On the demand side, the number of companies offering jobs remotely in the EU’s neighbouring countries seems rather low. Most e-workers

³³ A similar approach was also applied by the World Bank for calculating LinkedIn members’ mobility, which was presented earlier in the previous section.

FIGURE 57 Working-age populations will shrink in the EU, the Western Balkans and most Eastern Partnership countries



Note: Change in the working-age population (15–64), 2005–2030, in percent. Starting with 2020, statistics for working-age populations are estimates obtained from UN statistics. Data for Kosovo unavailable
 Source: Own elaboration using United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition, Rev. 1. | © Bertelsmann Stiftung and wiw.

offer services to foreign-based companies and can therefore be considered telemigrants.

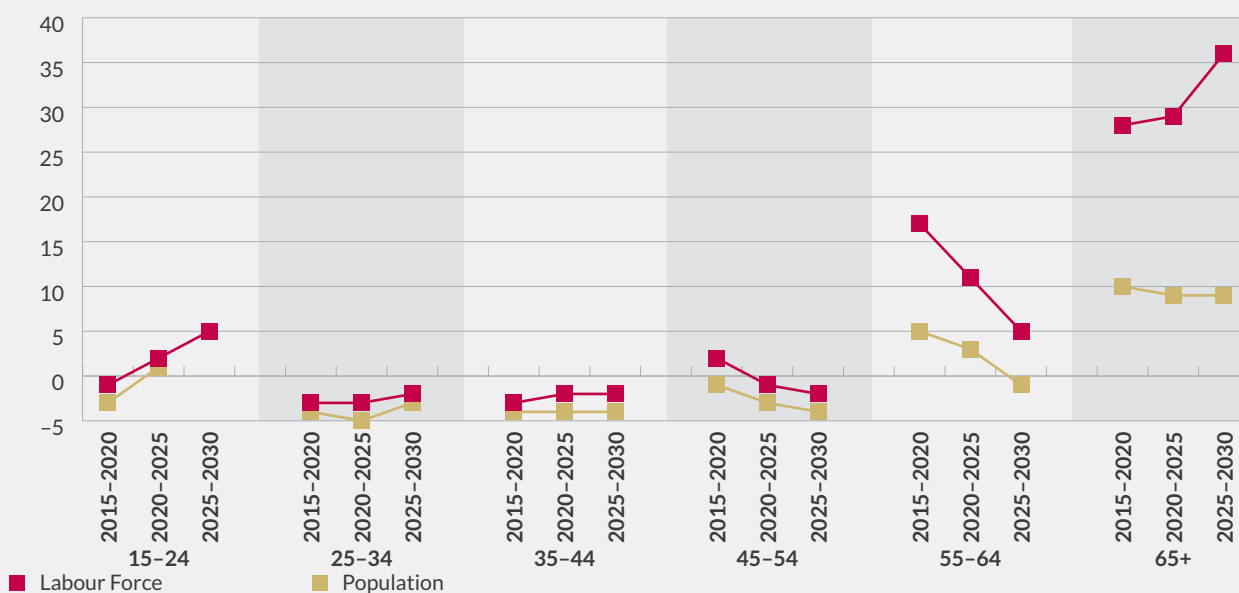
Despite the new pathways to employment that gig work is opening, we need to emphasise that we will have to wait and see whether this form of employment will be able to provide earnings and employment prospects that are better and stable over time. However, if this form of employment expands, the chances are good that telemigrating will become more prevalent. From the perspective of the sending countries, some of the benefits will be more job opportunities, higher earnings and fewer incentives to leave the country, especially among the highly skilled. From the perspective of the destination countries, labour shortages for certain professions (e.g. nurses and, to some extent, doctors, accountants and engineers, for whom the required qualifications and knowledge are often country-specific) will be less extensively alleviated by telemigrants. Nevertheless, telemigration may still be part of the solution for many other professional groups than the ones discussed above.

VIII.4 Potential future labour mobility

So far, we have looked at the current situation and how this has changed since around 2007. We now turn to the future of labour mobility between the EU and its peers and rivals and the EU’s neighbours. In this section, we will focus on two things: (i) demographic projections, both in terms of the working-age population (15–64) and the potential for changes in labour market participation among older workers; and (ii) the likely evolution of future labour demand in the EU, the demand for non-EU workers that this will generate, and the extent to which it will be possible for the EU’s neighbouring countries to meet this demand.

The EU’s working-age population already shrank between 2005 and 2020, and this trend will accelerate in the 2020–2030 period (Figure 57). Like the EU, Russia has been facing and will continue to face similar hurdles. In China, trends regarding the working-age population are also dismal, but not to the same degree that they are in the EU

FIGURE 58 In the 2020s, fewer young people will enter the labour market in the EU while elder cohorts will prolong their working lives



Note: Future labour force trends by age groups in the EU, net change 2015-2030, in percent.
Source: Own elaboration using CEDEFOP statistics. | © Bertelsmann Stiftung and wiiv.

and Russia. In contrast, the working-age population in the US will continue to grow, but at a much lower rate than in the past.

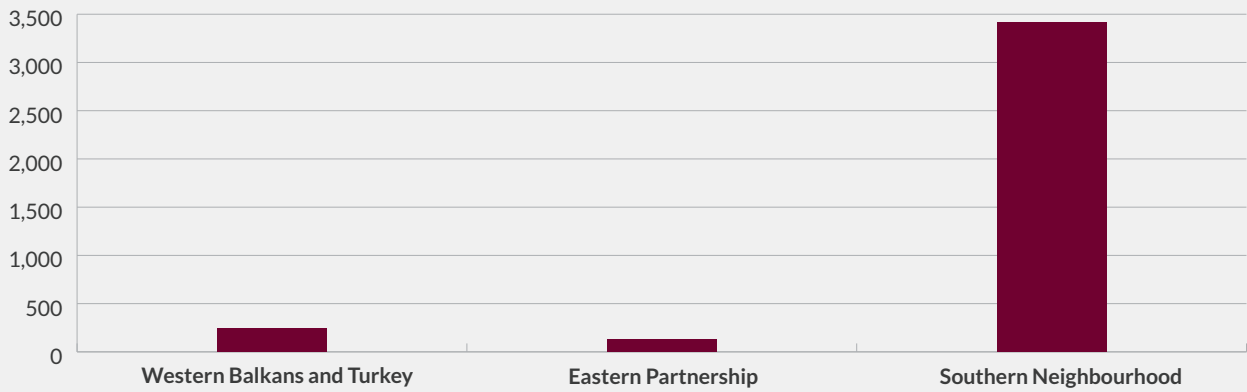
However, the definition of “working-age population” is already widening as more older workers remain economically active, and this trend is expected to intensify in the future. Already in the 2015-2020 period, the fastest increase in labour market participation in the EU was recorded for the 65+ age group, and the rate of increase is expected to go up further in the 2020s (Figure 58). More and more older workers will stay active in the labour market owing to pension reform and increases in the statutory retirement age. Nevertheless, this will be far from enough to fully offset the decline in the number of younger people in the workforce.

Thus, there is already a significant labour market “gap” in the EU, and this will continue to grow over the current decade. According to the European Centre for the Development of Vocational Training (CEDEFOP), demand for labour in the EU will increase by around 7.5 million workers between

2020 and 2030. By contrast, the CEDEFOP finds that the EU labour force will only grow by around 4.8 million over the same period. Even allowing for higher participation among those older than 65, these data suggest that demand for labour from outside the EU will increase further. If these workers do not arrive, there will need to be either a big jump in productivity (which is very unlikely) or a sharp decline in the rate of economic growth. The extent to which this gap will be filled by labour migrants from the EU’s neighbouring countries is open to question.

To understand the potential role of the EU’s neighbours in filling these labour market needs in the EU as well as the implications for future interconnectivity, we calculated potential migration from neighbouring countries to the EU following three main assumptions. First, we assume that the push and pull factors of migration (e.g. employment and earnings gaps) will continue to drive the mobility from these regions to the EU at the same intensity as in the past given that such gaps will only slightly narrow. Second, we assume that migration networks will continue to exercise a similar pull effect on migration flows given that the EU is

FIGURE 59 Among the EU neighbouring countries, by far the most likely future source of labour for the EU will be the Southern Neighbourhood



Note: Expected net migration to the EU by source, 2020–2030, in thousands
 Source: Own elaboration using CEDEFOP and UN statistics. | © Bertelsmann Stiftung and wiw.

one of the main destinations. Third, we assume that the EU will continue to attract a similar flow of migrants from its neighbouring countries as it has in the recent past.

The EU’s neighbouring countries will continue to be net senders of migrants. However, like in the EU, demographic trends in many of its neighbouring countries are also negative and show little potential for significant further outward migration. The Western Balkan countries are already experiencing negative working-age population growth. Except for in Turkey, the working-age populations are shrinking in this sub-region, and this is expected to be more pronounced than it is in the EU and its peers and rivals (Figure 57). A similar scenario is expected for the Eastern Partnership countries. In contrast, the only group of countries in which the working-age populations are expected to grow is in the Southern Neighbourhood.

Therefore, although outward mobility from the neighbouring countries will continue, it will be at a much slower pace than in the past for many of them. Overall, we find that on a net basis almost 3.8 million migrants from the EU’s neighbouring countries are likely to move to the EU between 2020 and 2023 (Figure 59), meaning that they will cover less than one-third of the expected net migration needs of the EU labour market over this period. Within this 1.4 million, the role of the Southern Neighbourhood will

be crucial, as 86 percent of the net migration from the EU’s neighbours over this period is expected to originate from Southern Neighbourhood countries.³⁴

These findings indicate that the EU will require relatively more immigration from non-neighbouring countries during the 2020s to fully meet its labour market needs. This, in turn, implies that there will be a relative weakening of interconnectivity between the EU and its neighbouring countries in the area of labour mobility at the expense of more connectivity between the EU and non-neighbouring countries.

³⁴ We do not include the impact of the recent large-scale arrival of Ukrainian refugees to the EU, as it is believed that most refugees will not want to stay permanently.

IX. Conclusions and the way forward

Our findings in this study show that the EU is the dominant economic, financial, technological, infrastructural and labour mobility partner of its neighbouring region. This applies to most indicators and for most countries. However, the EU's economic influence is not matched by its political influence. Many within the EU realise that this has to change – not least the current Commission, which has branded itself as “geopolitical”. This question has increased hugely in importance since the Russian invasion of Ukraine in February 2022 and the ensuing rapid decoupling between Russia and the EU. Yet it is important to see these trends in a broader context. The decoupling between Russia and the EU actually started in 2014 following the annexation of Crimea and the ensuing sanctions exchange. Moreover, the fallout from the invasion adds to pre-existing geo-economic challenges for the EU, especially global economic decoupling between the US and China, the climate emergency and increasing irregular migration.

The findings of our study add further evidence that the EU needs to develop in a more geo-economic and geopolitical direction. We have shown that the EU faces geo-economic competition and that, in some cases, this competition is growing. This is a concern for the EU's interests in its neighbouring region and could complicate the EU's ability to safeguard its interests and maintain its values going forward. Thus, it is important to come up with concrete steps to take on the basis of our findings.

Our contention is that this has happened because the EU has lost its way in its neighbouring regions over the past 15 years, which reflects various internal challenges that have consumed most of the bloc's energy. The EU has consequently lost its strategic focus in the neighbouring regions. In fact, it no longer has a clear plan for how it

wants to engage with the region, nor is it evident that the EU has a clear goal in mind that it is working towards. The Russian invasion of Ukraine has brought this need for greater clarity in terms of its aims and execution towards its neighbourhood into even starker focus.

In the period roughly until 2008, the EU's approach to its neighbouring countries was clear: those that wanted to integrate further and eventually join – and that were willing to make major reform efforts and restructure their economies and societies – would be given significant support to do so and a genuine accession perspective. Rounds of EU accession showed that a genuine belief in the accession process and concrete future economic rewards can be a powerful incentive to reform, which in turn drives higher levels of inward FDI and stronger rates of economic convergence.

However, in the last decade and a half, this genuine belief in the process has too often been lacking. The fraying of the accession commitment and the more confused and ambiguous EU policy towards its neighbouring countries have had negative consequences that have been detrimental to the bloc's influence in the region. The countries of the Western Balkans and Turkey are examples of this: by not providing a more credible path to deeper integration and ultimately accession, the EU has contributed to the institutional and political regression in parts of this sub-region, been part of the reason for a mostly disappointing convergence performance, and left the door open for its competitors and rivals to enter.

Especially with countries that are making visible and genuine efforts to reform as well as sacrifices in their efforts towards EU integration – such as North Macedonia,

Moldova and, in the most extreme case now, Ukraine – the EU has to respond with unambiguous commitment to deeper integration. The EU should clearly set out the reforms it wants to see, back this up with technical assistance, and provide strong economic and financial support based on reform progress. Previous rounds of accession have shown that it is exactly at this stage that the EU's support can drive positive reform momentum in a prospective member state.

It is absolutely in the EU's interests to support the economic development of this region. Even for the neighbouring countries that are not and probably never will be part of the formal accession process, a credible EU economic "carrot" – meaning budget support, market access, investment support, visa liberalisation or the like – can still be highly significant and a powerful driver of reforms, institutional upgrading and, consequently, stronger economic convergence, all of which are in the EU's interests in its neighbourhood. The EU should focus its attention on reforms – backed by strict conditionality – that will do the most to increase the economic development of the region. Rather than being limited to public investment, such support should also aim to foster private investment, especially FDI. Support for reforms of the policies for attracting FDI could be particularly important in the current climate, given the strains on global supply chains and European firms' growing interest in shifting production closer to home. Encouraging companies to invest in the neighbourhood instead of somewhere else could also be very useful. As the EU pushes forward with its green and digital transformation agendas via a renewed interest in industrial policy, the neighbouring countries should be included to the greatest extent possible.

In adapting its strategy, the EU must avoid putting too much attention on the immediate crisis caused by Russia's invasion of Ukraine at the expense of everything else. In particular, it would be a big mistake to forget about the Southern Neighbourhood. This is not only because that sub-region is being heavily impacted by the fallout from the Russian invasion (e.g. much higher food prices) as well as the lingering legacy of the pandemic and much of the brunt of the climate crisis. This is also because, as we have identified in this study, this is a sub-region where both interconnectivity and interdependence with the EU are likely to increase with time, especially in terms of labour mobility.

In an attempt to reset the muddled approach of the last 15 years – and following on from our key findings identified at the start of this study and elaborated in each of the five thematic chapters – we set five geo-economic priorities for the EU. To complement these five sections proposing EU actions in relation to its neighbouring sub-regions, we include a sixth set of recommendations detailing how the EU should deal with its peers and rivals in the region.

Trade: Fairer, deeper and more sustainable integration

- **Do not completely abandon the current approach because of Russia:** While the policy of *Wandel durch Handel* has clearly failed in the case of Russia, it would be a mistake to consider this a sign that all efforts in this direction are useless, particularly when it comes to smaller neighbouring countries. We find that most economies in the neighbouring regions are highly open and trade-dependent, and that this is a key area of interconnectivity with the EU. Trade remains a very viable and important way for the EU to positively influence developments in its neighbouring regions.
- **Acknowledge that the current approach contributes to a deficit model that does not do enough to develop local industrial capacity and increase convergence:** As we have shown, even many years after the implementation of ambitious trade and investment treaties, most neighbouring countries continue to run big trade deficits with the EU, which are often financed by remittances generated by the workers that neighbouring countries export (normally to the EU). This situation might be very difficult to avoid entirely, given the large gaps in economic development levels, which will not close quickly. But this model is part of the disappointing convergence performance over the past two decades and should be adapted. The EU needs to combine deeper free trade agreements with other forms of support – including technical assistance to upgrade institutions, financing of investment to improve infrastructure, and support to reduce non-tariff barriers – in order to allow its neighbouring countries to reap the full benefits of access to the EU market.

- **Consider direct industrial policy support in neighbouring countries in a way that complements/ reinforces the EU's own increased openness to industrial policy:** The EU should attempt to tackle the large trade deficits of its neighbouring countries, such as via support for industrial policy in new industries (e.g. green technology and the digital transformation), so as to help its neighbouring countries to build up bigger industrial bases of their own. This would help to narrow trade deficits and create better jobs to keep people in the region. These efforts could be tied concretely to the EU's own digitalisation and green transition agendas, such as by financing solar-energy capacity in the Southern Neighbourhood and the Western Balkans or wind- and hydropower projects in Ukraine. This could also help the EU to address its own critical energy dependencies through diversification.
- **Adopt a policy of differentiated economic integration, acknowledging that the one-size-fits-all policy of the past does not work in the current environment:** Owing to both enlargement fatigue in the EU itself and the fact that most candidate and potential candidate countries present more integration challenges than the previous ones, the enlargement process now takes much longer than it did before 2008. To acknowledge this, the EU should extend more of the benefits of membership to neighbouring countries before they achieve full accession. Along with greater access to the EU budget (see the finance section below), this should also include deeper integration into the single market by expanding existing SAAs, DFCTAs and other trade agreements with neighbouring countries. As part of this, the EU should offer greater technical assistance to companies so as to enable them to become more competitive and to take advantage of this greater market access. This especially applies to SMEs, which are likely to be the least able to thrive on their own.
- **Support the process of near-shoring where possible:** While globalisation is far from dead, in the wake of the pandemic and the Russian invasion of Ukraine as well as the US-China decoupling, it is highly likely that international economic integration will increasingly take the form of regionalism. This will include "near-shoring", which means that multinational firms will bring investment back closer to home. This represents a major opportunity for the EU's neighbouring regions, given that the EU is home to many large firms that are now considering shortening their supply chains. For the neighbouring countries, this represents a viable means towards increasing industrial and export capacity and, thereby, economic development. The EU should do what it can to support this. For example, it could provide technical assistance to improve investment promotion agencies; support efforts (e.g. those in the Western Balkans) to deepen regional markets, which could be more attractive to foreign investors than individual small countries; and expand loan guarantees to firms investing in the neighbouring regions. Surveys of German firms show that a major barrier to investing in parts of the neighbouring regions is concern about governance quality. This reinforces the imperative to strengthen conditionality in relations with the neighbouring regions in order to support institutional upgrading there (see below). The same surveys also show that, given demographic trends, German firms are concerned about labour availability in some of the neighbouring regions. This is yet another reason for the EU to support new forms of labour mobility that would help to increase the supply of skilled and experienced labour in the neighbouring countries (see the labour mobility section below).
- **Improve market access for neighbouring countries by reducing barriers to trade:** One of the reasons why most of the neighbouring countries run large and persistent trade deficits with the EU is the barriers to exports that they face. The EU is infamously protectionist when it comes to agriculture, but it also enacts significant non-tariff barriers to many trading partners in neighbouring regions in other areas. Even the deeper trade integration agreements (e.g. the DCFTAs with Georgia, Moldova and Ukraine) still include significant non-tariff barriers. In return for meeting EU standards (see below), the EU should offer its neighbouring regions better market access.
- **Use the offer of greater trade integration and market access to secure higher social and environmental standards:** The EU's size and importance as a trading partner to its entire neighbouring region means that increased integration would bring large benefits to its neighbouring countries. For example, the EU market

is almost 100 times the size of the regional market of the Western Balkans, meaning that any increased integration with the EU offers a huge potential upside. Given the size of this “carrot”, the EU also wields a sizeable “stick” with which to safeguard its interests. With this in mind, the EU should combine offers of deeper trade integration and better terms with conditions on environmental and labour standards. This should include implementation of the EU’s 2021 trade policy review to broaden the European regulatory sphere to encompass not only EEA countries, Switzerland, Turkey and the UK, but also all the countries of its neighbouring regions.

- **Get the neighbourhood more involved in setting standards, and compensate them where appropriate:** The EU should involve cooperative neighbouring countries more fully when setting standards and designing new policies – while also carefully thinking through the impact that these policies will have on the neighbourhood. It was a mistake, for example, to expect the Western Balkan countries to go along with sanctions against Russia without having first consulted them and involved them in the process of formulating sanctions. For the neighbouring regions, the introduction of the Carbon Border Adjustment Mechanism (CBAM) is likely to accelerate the green transition, but also to significantly impact the export earnings of neighbouring countries, meaning negative economic spillovers. While not compromising on its standards, the EU must take this into account and involve neighbouring countries in its deliberations in order to secure their buy-in. In addition, the EU should support neighbouring countries during this transition with both technical assistance and financial support for the decarbonisation of industry.

Finance: Using its dominant position to drive positive change

- **Boost support for the euro as a reserve currency:** The dollar is not going to be toppled as the world’s reserve currency anytime soon, but it should still be possible to increase the importance of the euro in the neighbouring countries. This will require further boosting the size, liquidity and credit quality of euro markets, but also further integration of the single currency area to boost

confidence in its long-term survival. Given that such a large share of most neighbouring countries’ trade is with the euro area, there seems to be scope for many to increase their share of foreign reserves in euros. Although a currency should only be weaponised in extreme circumstances, the Russian invasion of Ukraine shows that these extreme circumstances can arise in the EU’s neighbouring regions. Moreover, as the case of the US dollar shows, many actors – including even China – adapt their behaviour out of fear of potential US sanctions. Thus, simply having the power to inflict sanctions via a dominant reserve currency can influence the behaviour of economic partners without having to take concrete action. The ECB is also much more conservative in its extension of swap lines than the US Federal Reserve. This would be yet another way to boost the importance of the euro in the neighbouring regions.

- **Make sure that sufficient financing is available for projects that enhance connectivity and economic potential in the neighbourhood:** The amounts required to make a sizeable difference in its neighbouring countries are small relative to the overall EU budget. This is especially important because, as we have shown in this study, there are financing needs in the neighbouring countries that are currently being met by China. This is often a sub-optimal outcome for both the EU and those countries themselves, not least because of looser environmental, labour-protection and procurement standards. Financing can take various forms, such as direct budget support (see below), but also instruments to reduce risk and the cost of financing as well as public/private partnerships involving EU firms. The EU should also aim for better leveraging of private finance, which has not always met the EU’s high expectations in the past.
- **Include candidate countries in the EU budget:** This is a long-held recommendation of some of the authors of this study (Weiss et al. 2021, Jovanović et al. 2022), and the findings of our research here further point in this direction. Including the Western Balkans in the EU budget would hardly register in EU accounts, but it could make a major difference to the recipient countries. There are several arguments in favour of this, but the strongest is probably that

the EU accession process is fundamentally different, and takes substantially longer, than was the case in the past. If countries have to wait 20 or more years rather than less than a decade, as was the case in the past, it will naturally have economic and political consequences. As their trade and labour integration with the EU intensifies ahead of accession, so should formal involvement in the EU budget. The point of the budget is exactly this: to offset the trade and labour agglomeration effects that integration into the EU single market brings about. Furthermore, it will help to reduce the political influence that China and Russia currently have on some of the countries in the EU neighbourhood and would bring those countries closer to the EU in political terms.

- **Expand budget support for non-candidate countries as well:** The EU should also expand budget support for non-candidate neighbouring countries in order to help finance public investment in infrastructure and institutional capacity-building, which in turn could help them to attract fresh investment. We find that almost half of EU budget support goes to a relatively small number of neighbouring countries (i.e. the Western Balkans and Turkey). Expanding this support and diverting more of it to the rest of the neighbouring countries could be in the EU's interests. In saying this, we recognise that the institutional distance between the EU and much of its neighbourhood represents a barrier to deeper integration, including in the provision of budget support (and the confidence that this will be put to good use).
- **Help to ease access to private credit in the neighbouring regions:** Along with important partners, such as the ERBD and the EIB, the EU should support the development of deeper and more liquid local capital markets in addition to taking other steps to reduce the costs of financing. This would allow smaller firms, in particular, to secure credit and expand; increase economic development; and provide smaller innovative firms with a more viable route to expansion.
- **Combine this offer of expanded support with tougher conditionality:** As already outlined at the start of this conclusion, the EU has partly lost its ability to influence its neighbourhood on a positive convergence path because it has not provided sufficient financial resources. The weakening and even regression of convergence momentum can be seen in a broad sense – not only in GDP per capita terms, but also in institutional, social and environmental convergence. The fact that the gap left by the EU has often been filled by China has contributed to weaker institutional and environmental standards. An updated EU financial offering to the region, including more budget support and better access to credit, should take the opportunity to be much stricter about conditionality for this funding, especially around EU priorities like the green transition and positive steps in the rule of law. This would increase the likelihood of a more sustainable model of economic development, stronger institutions and more resilient democracies in the region.
- **Create new financing mechanisms and streamline decision-making to react to emergencies more quickly and to safeguard EU interests:** The neighbouring region is currently facing major crises – including wars, the mass displacement of people, and extreme climate events – and this will also be the case in the future. Russia's invasion of Ukraine has shown that the EU is slow to react when faced with a crisis. In fact, it has largely fallen to the US to provide large-scale emergency financing to keep Ukraine's economy going to support its war effort. If the EU wants to be a greater force in shaping outcomes in its neighbouring regions in keeping with its objectives, it must be able to react more quickly and on a larger scale. In the case of Ukraine, this must then be combined with a strong medium-term strategy for the financing and coordination of the reconstruction. In addition, the EU should provide extensive technical support for post-war reform efforts in Ukraine. The EU is the obvious actor to lead and coordinate external support for Ukraine.

Technology and knowledge exchange: Increasing the EU's competitiveness while advancing deeper integration, harmonisation and cooperation

- **Boost technological competitiveness:** In this report, we find that China is increasingly taking over from Europe as a source of high-tech imports to the EU's

neighbouring countries. This suggests a weakening of the EU's competitiveness in this field and could potentially make the neighbouring countries more dependent on China for certain technologies. Given the increasing US-China technological decoupling, this could have quite serious consequences and reduce the EU's room for manoeuvre. In tackling this issue and supporting the growth of more innovative tech firms, the role of both public and private finance is important. Expanded R&D funding for basic research and, in private finance, the deepening of capital markets and encouragement of more risk finance to support innovative digital start-ups will both be key.

- **Do more to allow EU tech giants to emerge and compete with those in China and the US:** Part of Europe's falling behind is due to its lack of large-scale tech firms compared with China and the US. Helping bigger firms to emerge is a complicated process, but it can be done with robust government commitment. A recent positive example is the EU Chips Act, which will be supported by the public investment of €43 billion between now and 2030 and has already induced Intel to invest in several plants in the EU. This should be replicated for other high-tech fields.
- **More fully anchor the EU's digital presence in its neighbouring countries:** In this study, we find that the EU remains dominant as the source of ICT imports in its neighbouring countries. However, as Chinese-US tech competition grows, this is not guaranteed to last. It is important for the EU to take steps to anchor the neighbouring region as part of a wider European digital space (e.g. in a regulatory sense) that is not dependent on China or the US. Integrating the neighbouring countries into the digital single market and providing support to combat cybercrime should be considered. Initiatives like the EU4Digital programme in the Eastern Partnership, which aims to support increased cyber resilience, should be expanded. This process will also be helped if bigger EU tech firms emerge that can compete with US and Chinese rivals. The EU should do more to facilitate this. It could also consider making additional investments in digital start-ups in the neighbouring regions, as growing IT hubs exist in many of the countries.
- **Simplify the patent validation process in the EU:** The main reason why neighbouring countries prefer to patent more in the US than in the EU is that the current patent validation process in the EU is complicated and slow. In fact, once granted, every patent needs to be validated separately in every EU country if it is to be valid in that country. This discourages patent registration and validation in the EU and hampers technological cooperation between the EU and its neighbourhood. In order to improve cooperation in this area, as well as to make the EU more attractive for patent activity in the neighbourhood, the patent validation process should be simplified.
- **Expand cooperation in medical technology and use it in a more strategic way:** The technology field in which cooperation and interconnectivity between the EU and its neighbouring countries is most pronounced is medical technology. This field is very important and will become even more so in the future owing to the ageing of the population. In addition, new pandemics certainly cannot be ruled out. The EU should prepare for this by cooperating more with its neighbouring countries on medical technology, both in terms of R&D and production. It should also support the neighbourhood in its efforts to improve its position in this field of technology. Furthermore, it should try to use this cooperation in a strategic way, namely, as a means of increasing its political influence in the region.
- **Expand scientific cooperation:** To build on the existing strong student exchange networks that we identified in this study, the EU should consider several steps to further integrate the neighbouring regions into its research networks, thereby facilitating knowledge spillovers and contributing to human capital and wider economic development. This could include full participation in the next Horizon programme, inclusion in the European Research Area, and full inclusion in (and extra funding for) the Erasmus programme as well as encouraging and subsidising deeper cooperation and partnerships between EU universities and those from neighbouring regions. This is one of the most effective ways for the EU to use its huge soft power to deepen links with the next generation of people from neighbouring regions in a way that will benefit both sides in the future.

Infrastructure: More sustainable development via infrastructure financing, and mastering the energy transition together

- Make a more serious offer to the neighbouring countries for infrastructure financing to drive sustainable development and counter the influence of China:** China has arrived in many places in the regions neighbouring the EU to finance an infrastructure gap that the EU should be filling itself. EBRD data consistently show significant infrastructure-financing needs in large parts of the EU's neighbouring regions. The EU should first define those areas where it is in its interest to do the financing itself, which would naturally include transport connectivity (given its contribution to overall economic development) in addition to investments related to the green and digital transitions. Via the EIB (which is wholly controlled by the EU) and the EBRD (in which the EU is the main shareholder), the EU has options to provide more targeted development assistance in its neighbouring countries. The EU can also do more to provide loan guarantees and investment incentives for private firms to invest in infrastructure in the region in addition to tying this to reform and green agenda benchmarks. The Global Gateway initiative is certainly a step in the right direction, as is the Economic and Investment Plan for the Eastern Partnership. However, as is often the case, these plans rely on quite heroic assumptions about the crowding in of private capital. The Global Gateway, in particular, is likely to need a lot more public money than is currently on the table if it is to truly meet its stated goals.
- Tie increased investment to the green agenda in order to help to incentivise this transition in the neighbouring regions as well:** As the EU moves towards a coordinated energy policy, such as with the EU's Trans-European Networks for Energy (TEN-E) as well as its LNG and hydrogen strategies, it would make sense to involve willing neighbouring countries in these efforts, ranging from production to interconnectivity to storage. Many parts of the neighbouring region have high potential in wind, hydro or solar power, for example, and cooperation here with EU financial support could be beneficial to all and lead to greater energy resilience and security of supply. Progress has been made to align energy market regulation among the EU and parts of

its neighbouring regions (e.g. with the three DCFTA countries), which opens up a possibility for cross-border energy investments between EU and non-EU countries.

- Target more investment in transport infrastructure in the region:** Major investments in transport infrastructure have significant potential to reduce income disparities across the EU and its neighbouring regions. Particularly for candidate and potential candidate countries, the EU should make its commitment clear by increasing the financial offering for transport infrastructure investment. The lack of quality transport infrastructure in Southeast Europe, both in terms of connections between countries and with the EU, is one of the main barriers to stronger integration and holds back regional trade. Although China has increased its role in infrastructure investment in the region, this has not always been consistent with the priorities of the countries themselves and can have negative spillovers in terms of weaker environmental and public procurement standards as well as debt dependency (as in the case of Montenegro). The planned expansion of the Trans-European Transport Networks (TEN-T) to the Eastern Partnership countries with EIB and EBRD funding represents a positive step.

Labour mobility: It is time for a new strategy that balances the needs of the EU, its neighbouring countries and migrants themselves

- Accept that the current model is not the best one and, in any case, is running out of steam:** The way labour mobility works within interconnectivity will change in the future, and the EU needs to be prepared for this. It is already clear that there is a problem with a model that encourages neighbouring countries to export many of their best-educated citizens to the EU. While those individuals and the EU clearly benefit from this, it is less clear that the neighbouring countries do. For example, they lose out on productivity spillovers from the skilled workers who leave, have to settle for inferior public services due to the exodus of the necessary expertise (e.g. in healthcare), and have fewer fiscal resources. In addition, workers from the neighbouring countries often suffer from "brain waste", whereby they

find employment in the EU in jobs for which they are overqualified. However, even this quite unsatisfactory model is running out of road. As we have shown, owing to demographic factors, neighbouring countries (except those in the Southern Neighbourhood) are not going to be able to provide workers to fill shortages in the EU in the same way as they have in the past. This reflects decades of low birthrates in most neighbouring countries as well as the impact of historical large-scale outward migration. The role of the neighbouring countries in filling future EU labour market gaps will probably not be as significant as in the past.

- **Strike a better balance between the aspirations of people from the neighbouring regions, the needs of the EU labour market, and the needs of the neighbouring countries themselves:** Following on the previous paragraph, the EU's goal when it comes to labour mobility should be to give skilled workers from neighbouring countries access to the EU labour market where the latter has labour shortages (which is increasingly everywhere), but not in a way that permanently sucks out the neighbourhood's best talent and holds back neighbouring regions even more. In the next few bullet points, we list several ways that this can be done.
 - **Encourage remote work to attract more workers from neighbouring countries:** We find that some of the future EU labour market gap could be filled by remote work from the neighbouring countries, which is something that has increased significantly since the outbreak of the pandemic. The EU could do this by amending legislation to make it easier to employ workers from outside the EU. This "virtual mobility" means that workers can find better-paid jobs but still stay in their home countries, which in turn increases the chances of positive spillovers there.
 - **Devote resources to addressing what causes so many people to leave the neighbouring regions:** The literature shows that the link between economic development and the propensity to migrate is quite complex. Up to a certain income level, rising incomes can actually increase the propensity to leave a country. Therefore, simply providing support for economic development is not a way to encourage people to stay in the neighbouring countries. Equally important
- are EU efforts to improve governance, the rule of law, institutions, the quality of public services, and infrastructure, all of which have been outlined above. Supporting science, education and digitalisation in the neighbouring countries is also important.
- **Encourage circular migration:** Another way to try to meet the needs of all sides is to make circular migration easier. This means that skilled workers from the neighbouring regions come to the EU for a certain period of time to work and/or study before eventually returning home. A system like this allows workers both to gain experience in frontier firms in the EU and then to transfer that experience back to the neighbouring regions. A parallel scheme could be introduced for lower-skilled workers from neighbouring countries – who the EU also needs – that would allow them to receive fixed contracts in the EU. This would lead to a permanently higher flow of remittances back to the neighbouring countries, which would support economic development there. The EU could facilitate such schemes with legislation and financial incentives while also supporting (financially or otherwise) the position of the worker back in their home (neighbouring) countries.
 - **Limit brain waste:** The EU should try to limit the brain waste of workers from the neighbouring regions working below their level of qualification. This would include making qualifications easier to recognise, speeding up labour market integration, and providing strong support for language training. This more active labour market policy targeted at labour migrants would boost their ability to work at a higher level in addition to helping the EU to address its skills shortages.
 - **Focus especially on the Southern Neighbourhood:** We find that this is the sub-region from which the majority of economic migrants could feasibly come to the EU in the future. Coping with cultural, linguistic and other differences will require targeted integration policies. Policies should also take into account what is likely to be a highly asymmetric distribution of these migrants, as it is also likely that future migrants from the Southern Neighbourhood will arrive in a small number of countries, perhaps especially in those with strong cultural and linguistic ties to their homelands, such as France.

Dealing with peers and rivals: Partnering with the US, striking the right balance with China, and decoupling from Russia

The EU needs to have a clear plan to deal with its peers in the neighbouring countries, particularly in light of Russia's invasion of Ukraine, which has significantly hardened geopolitical and geo-economic fault lines. In most cases, the EU is far more important to its neighbouring countries than the US, China or Russia. However, as we have shown, there are sectors and countries in which each of the three peers and rivals represents a clear source of competition. And each will require a different approach.

The US: Clear complimentary of roles, and preference for continued cooperation – but the EU must plan for the possibility of less US engagement

We see the US role in the region as mostly complimentary to that of the EU. There are fields in which the EU can and does lead. However, when it comes to hard power and military issues, the US leads and the EU follows – and is far from being able to act without the US. This has been starkly emphasised by the response to the invasion of Ukraine, but this response has also underlined the power that the US and EU wield when they jointly engage in economic and financial efforts. As we identified in this study, the dollar and the euro collectively dominate the foreign financing of all the EU's neighbouring countries and, working together with smaller allies (e.g. the UK and Switzerland), the democratic states of the West were able to freeze a large part of Russia's foreign currency reserves in the immediate aftermath of the invasion. Although EU and US actions in the neighbourhood should be more geared towards incentives rather than punishment, the case of Russia shows the power of the two working together in the region in cases where punitive action is necessary. Similarly, the invasion of Ukraine has brought the US and EU closer together when it comes to their China policies, and this will also be important in their coordination of economic policies in the EU's neighbouring countries.

Nevertheless, growing political polarisation in the US – and especially the experience of the Trump presidency – demonstrate the need for caution. While the current US administration has been steadfast in its Atlanticist position and commitment to European security, it is not guaranteed

that this will be the case after the next election, in 2024. Even if the EU's preference should remain to work with the US as closely as possible, it must plan for a world in which it can act without the US, if necessary, in its neighbouring region.

China: A more difficult future relationship with increased rivalry

The EU sees China “simultaneously as a partner for cooperation and negotiation, an economic competitor and a systemic rival” (EEAS 2022). Since the EU's “Strategic Outlook” Joint Communication issued in March 2019, relations have deteriorated further. This trend is partly linked to increased US-China tensions as well as China's own changing behaviour in both the political and economic spheres, but it also reveals changing attitudes within the EU itself. Economically and financially, there is already concrete evidence of this more cautious EU stance towards China, including the use of protective measures (e.g. tariffs, investment screening and even sanctions). Based on the findings of this study, we see clear areas in which China is a rival in a geo-economic sense to the EU in its neighbourhood, and that this rivalry is increasing.

Based on our findings, we see two particular geo-economic issues for the EU to address in relation to China. The first is China's growing role in the financing and ownership of strategically important infrastructure in the neighbourhood. As this financing is often credit-based and opaque, it carries clear risks, including those that recently materialised in Montenegro. The EU must recognise that China is often filling genuine financing gaps and, as outlined above, that these are often gaps that the EU could and should be filling itself. This is especially the case in Southeast Europe, where more EU financing would be better for the interests of both the EU and the region itself.

The second key area to address for the EU is that China is becoming an increasingly important supplier of high-tech imports to the EU's neighbouring countries. As outlined above, this creates a risk that the neighbouring countries will become more dependent on Chinese technology, which could be especially problematic in the context of US-Chinese technological decoupling. The EU should address its own technological competitiveness while also deepening trade and digital integration with its neighbouring countries. By

integrating its neighbouring countries more deeply in terms of trade and the digital sphere, the EU can prevent them becoming too dependent on Chinese technology.

What's more, it may be easier now for the EU to push back against Chinese influence in its neighbouring countries than it was before. Various incidents – such as the debt problems in Montenegro linked to Chinese financing of a motorway, China's attempt to bully Lithuania, or China's support for Russia's invasion of Ukraine – have changed attitudes towards China at least in large parts of Central, Eastern and Southeast Europe. In any case, Chinese infrastructure financing, which was previously somewhat attractive due to the perception that it came with less stringent conditions than EU financing, certainly looks less appealing now.

Russia: Fundamental decoupling

Russia now represents a very particular case for much of the EU's neighbouring region, much of which sees the fallout from the invasion of Ukraine in a more ambiguous light than the EU itself. Although we find that, for the most part, Russia provides very limited competition to the EU in its neighbouring countries in economic, financial and technological terms, parts of the neighbouring region are heavily dependent on Russia for energy and food, and most of these parts do not have the financial resources that the EU does to seek alternative suppliers and lessen the impacts on their citizens. Although the invasion of Ukraine and its fallout has dramatically intensified the decoupling between the Russian and EU economies that started in 2014, many of the EU's neighbouring countries continue to have deep economic and financial links with both. Those countries – especially in the Western Balkans and parts of the Eastern Partnership, but also in the Southern Neighbourhood to a certain extent – are now being squeezed by the new geo-economic reality. Many will be forced to make difficult choices. The EU must make sure that those countries which are wavering in their geo-economic alignment have clear incentives to side with the EU.

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Project team

Bertelsmann Stiftung

Christian Hanelt
Senior Expert Europe, EU Neighbourhood and
the Middle East
Program Europe's Future, Berlin

Miriam Kosmehl
Senior Expert Eastern Europe and EU Neighbourhood
Program Europe's Future, Berlin

Markus Overdiek
Project Manager
Program Europe's Future, Gütersloh

Thieß Petersen
Senior Advisor, Gütersloh

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

The Vienna Institute for International Economic Studies (wiiw)

Vasily Astrov, Economist
Richard Grieveson, Deputy Director
Veronika Janyrova, Project Manager
Branimir Jovanović, Economist
Artem Kochnev, Economist
Isilda Mara, Economist
Olga Pindyuk, Economist
Oliver Reiter, Economist
Nina Vujanović, Economist

In addition, the project team was supported by the statistical
research of Beata Borosak, Alexandra Bykova, Nadja Heger,
Beate Muck, Monika Schwarzhappel, Galina Vasaros and
David Zenz.

External Advice

Housseem Eddine Chebbi
Department of Economics, Ecole Supérieure des Sciences
Economiques et Commerciales de Tunis, Tunisia

Michael Landesmann
Senior Research Associate, Economist (former Scientific
Director 1996–2016), wiiw; Department of Economics,
Johannes Kepler University Linz, Austria

Rolf J. Langhammer
Former Vice President, ifw Kiel Institut für Weltwirtschaft,
Germany

Veronika Movchan
Academic Director, Head of the Center for Economic Studies,
The Institute for Economic Research and Policy Consulting,
Kyiv, Ukraine



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Bertelsmann Stiftung
Carl-Bertelsmann-Straße 256
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Stefani Weiss

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Josh Ward, Berlin

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Nicole Meyerholz, Bielefeld

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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 +49 5241 81-81198
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@wiiwac.at

www.bertelsmann-stiftung.de