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**EU INDUSTRIAL POLICY
IS DISCUSSED BY
CRISTINA CAFFARRA AND
NATHANIEL LANE**

**ARMIN STEINBACH
EXAMINES THE WESTERN
BALKAN COUNTRIES EU
ACCESSION**

**PASCAL SAINT-AMANS
CONSIDERS THE PROBLEMS
OF TAX LEAKAGE IN THE
EUROPEAN UNION**

THE EUROPEAN TRADE AND FINANCE PLATFORM

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The rocky road to EU accession



Executive summary

The Western Balkan countries and the countries of the Eastern Partnership are moving towards European Union accession at different speeds. We explore whether and how the variable speed towards EU accession can be traced to different legal regimes governing European integration: Stabilisation and Association Agreements (SAA) for the Western Balkan countries, and Deep and Comprehensive Free Trade Agreements (DCFTA) for the countries of the Eastern Partnership (EaP).

We find that DCFTAs apply more lenient conditionality to intra-regional cooperation. They subject non-tariff barriers to a more explicit regime than the Western Balkan SAAs. The DCFTAs also offer a more rigid and comprehensive approach to the approximation of laws than the SAAs, and the DCFTAs are more inclusive with regard to the role of civil society.

However, there is no indication that the differences in legal governance have translated into stronger economic performance in the EaP countries or greater integration with the EU, compared to the Western Balkans.

The Western Balkan countries remain significantly more integrated than the EaP countries with the EU in trade terms, while convergence with the EU has been stagnating both for the Western Balkan and the EaP countries. Economic shortcomings in the Western Balkan still need to be addressed.

Conditionality attached to both integration into the EU single market and EU funding should be nuanced; the eradication of non-tariff barriers should be prioritised both inter-regionally and intra-regionally between Western Balkan countries; the need for stronger EU investment in the region is reinforced by geopolitical concerns about

Chinese investments coming without EU-type conditionality attached; and governance should give a stronger role to civil society.

In order to address the shortcomings in SAAs, a pragmatic solution is to use the existing governance framework under the SAAs.

The importance of EU single market membership to West Balkan economic prospects cannot be overstated

1 Introduction

Until the Russian invasion of Ukraine, the European Union pursued a two-track approach to its south-eastern and eastern European neighbours. The EU accession prospects of the Western Balkan (WB) states (Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Kosovo and Serbia) were more promising than those of their eastern counterparts – in particular Georgia, Moldova and Ukraine – which were associated with the EU through its Eastern Partnership (EaP).

Georgia, Moldova and Ukraine declared they wanted to join the EU in the mid-2000s, but for a long time the EU preferred alternative models: first the European Neighbourhood Policy (in 2004) and then the EaP (in 2009). But though the EU pursued an integration model in relation to the EaP that did not aim at EU accession, Russia's war against Ukraine triggered a change to this two-track approach.

Suddenly, the process, at least with Ukraine, Georgia and Moldova (which are the reference point of comparison with the WB in this paper), turned into an accession process, ushering in the initiation of accession negotiations with Ukraine and Moldova in December 2022.

The three eastern European states had practically no waiting time before being accepted as candidate countries right after application (Box 1). This contrasts with the Western Balkans, with either, as for North Macedonia, a decade of waiting for the opening of accession negotiations because of resistance from some EU member states or, as for Serbia, a decade of dragging negotiations because of democratic backsliding.

As the progress report in Box 1 shows, given that WB applications to accede to the EU date back as far as 2004, the accession process has advanced much more slowly than for the EaP countries that applied only in 2022.

Yet, new impetus has spilled over to the WB, as the EU opened accession talks with Albania and North Macedonia in July 2023 and with Bosnia and Herzegovina in March 2024, while Kosovo officially submitted its membership application in 2022.

The new 'reversed order' of accession, with Ukraine seemingly outpacing the WB since 2022, adds to a dissatisfaction with the WB accession process that has long been growing. Among WB countries, the dominant perception was that the EU promise of WB membership was not credible, while the EU felt persistently concerned about the lack of "*genuine domestic reforms*" and remaining political rifts in the region (Dabrowski, 2022).

Ukraine's rapid move towards accession raises the question – notwithstanding the political accelerator for Ukrainian accession arising from the Russian assault – whether there are lessons to be learned from the new 'front runners'¹.

With the relationship between the EU and Ukraine, Georgia, and Moldova now governed by a different set of agreements and governance, this paper explores possible differences between the relationships the two blocs have with the EU.

It has been argued – but not analysed in depth – that the Deep and Comprehensive Free Trade Agreements (DCFTA) led to Ukraine, Georgia and Moldova being better integrated with the EU in terms of their access to its markets, than the Stabilisation and Association Agreements (SAAs) did for WB countries (Blockmans, 2018). The DCFTAs form part of the countries' Association Agreements with the EU and supplement and deepen their integration into the EU internal market.

Our analysis explores more deeply the comparison between the two groups of agreements. Clearly, we consider the pre-war situation and as such exclude that war-related geopolitical factors changed the accession pace of EaP countries, and of Ukraine in particular.

Specifically, we seek to better understand the differences in regimes and access to the EU internal market. First, we systematically assess and compare the substantive, procedural and institutional differences between the eastern European AA/DCFTAs and the WB SAAs with respect to their potential in offering access to the EU internal market.

Despite large similarities between the agreements, we find considerable differences in legal governance related to conditionality, non-tariff barriers of trade, trade in services, foreign direct investment (FDI) and the approximation of laws. We extend the comparative analysis to shortcomings in the governance and implementation process of the relevant SAAs and working plans.

Second, in view of the differences, we explore the extent to which they may have had an impact on economic performance in terms of convergence with the EU, trade in goods and services, non-tariff barriers, FDI and what measures should be implemented to overcome the existing shortcomings.

These could be implemented either by modifying the WB SAAs or through modifications to the level of technical implementation. We caution against claiming a causal effect in terms of the differences in legal governance leading to Ukraine to obtain the status of accession negotiations so rapidly (geopolitical reasons are likely to trump the modest performance of Ukraine, for example).

Our analysis comes at a critical time. Political sentiment in some WB countries, particularly Serbia and North Macedonia, blames the EU for slow accession, while democratic backsliding and authoritarian regimes in the WB is leading to China and Russia, as underpinned by an influx of Chinese FDI (Figure 7), to be seen as alternatives to moving closer to the EU, with the EU portrayed as just one among the external players in the region (Vulović, 2023).

The new Growth Plan (European Commission, 2023a) and the draft Reform and Growth Facility for the Western Balkans (European Commission, 2023b) seek to revive WB integration. While additional funding for the region will be made available, the new proposal brings a demanding degree of conditionality, increasing the pressure for domestic reforms (in line with the EU Copenhagen, or accession, criteria), and setting additional intra-regional integration as cumbersome preconditions, both for internal market access and funding eligibility.

Yet, the current negotiations of a roadmap for Ukraine's accession to the EU may offer a new momentum for the WB states to integrate further into the EU single market, by underlining the mutual benefits. The new geopolitical reality enhances the significance of the EU's enlargement policy, but for it to materialise, it requires modification of the current regime governing market access, financial investment and governance.

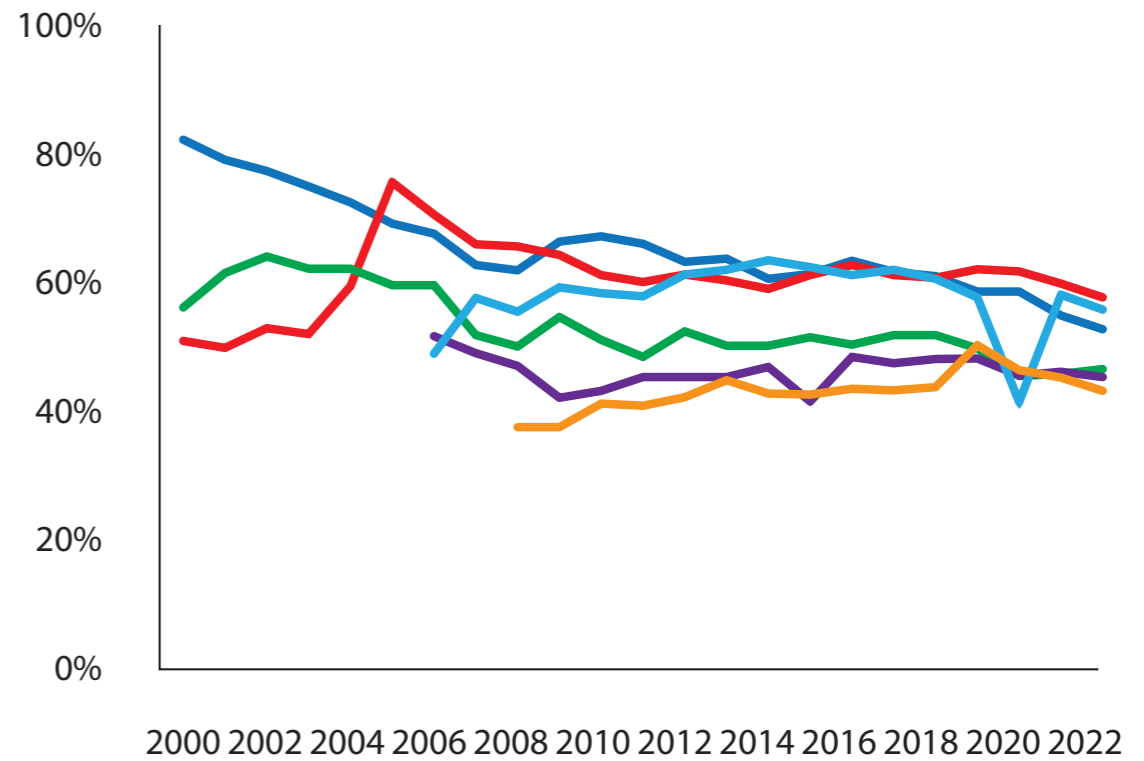
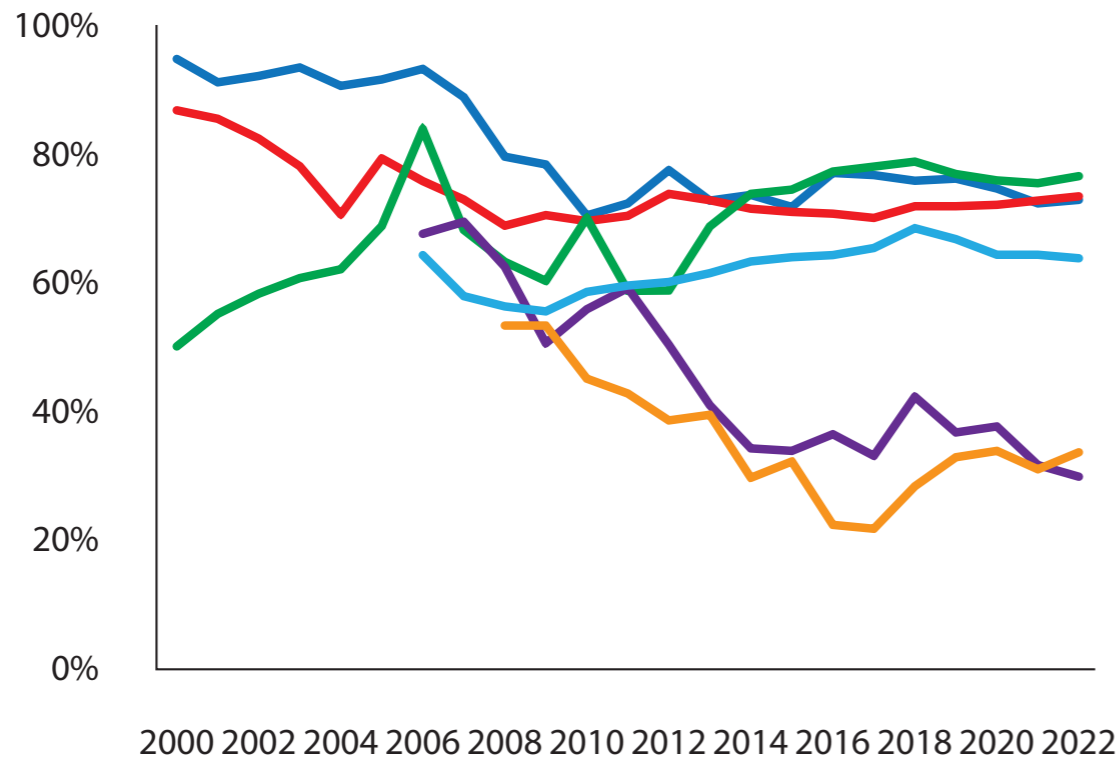
We focus on access to the single market both from the perspective of substantive market access and governance of the implementation. The EU is the key trading partner of the Western Balkans, with WB goods exports to, and imports from, the EU in 2022 amounting to €37 billion and €48 billion respectively (equating to simple averages of approximately 59 percent and 49 percent of their respective trade totals; Figure 1). Services trade between the two is also significant, with exports to and imports from the EU amounting to approximately €8.5 billion and €7.5 billion respectively for the same year (Figure 6)².

However, the WB share of exports to and imports from the EU27 has been constant in average over the last twenty years. Since the sequential entry into force of SAAs since 2004 there has not been a significant increase in trade integration with the EU. In turn, the share of the EU as an export destination for EaP goods has on average increased (Figure 1b).

At the same time, the rate of convergence of the Western Balkans countries was described in the new Growth Plan as *"not satisfactory"* and *"holding back their progress on the EU track"* (European Commission, 2023, p.1).

Figure 1a. The EU as an export destination (left) and import source (right) for WB goods (% of total exports and imports respectively)

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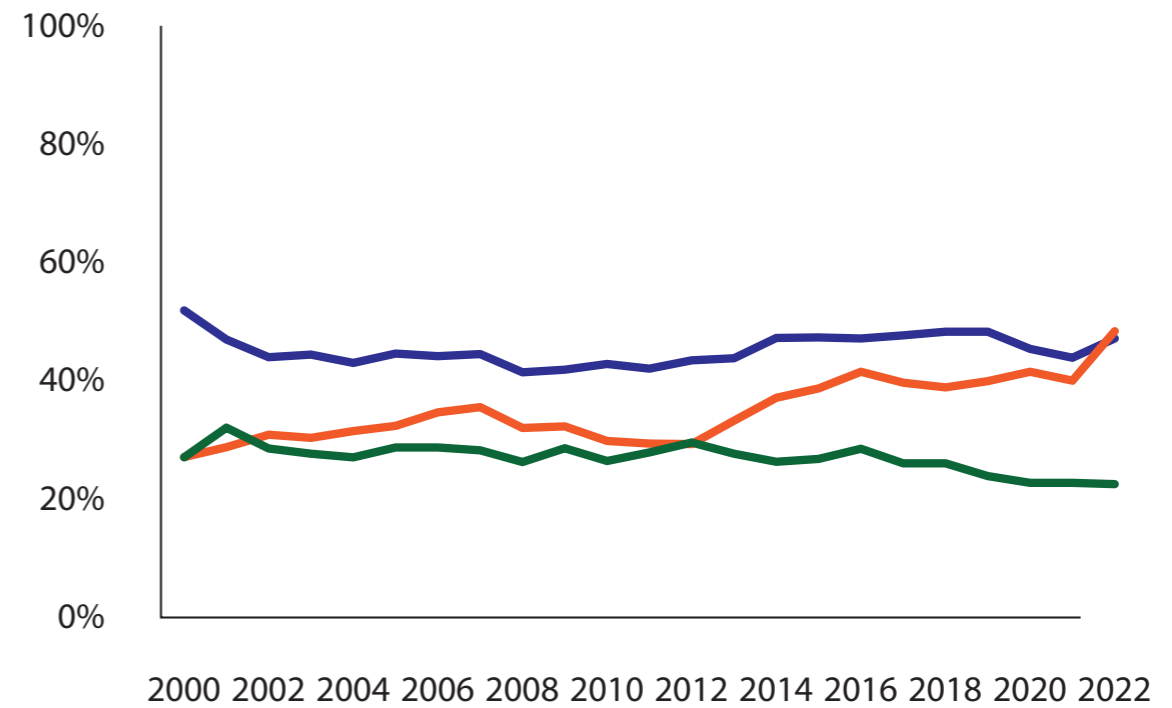
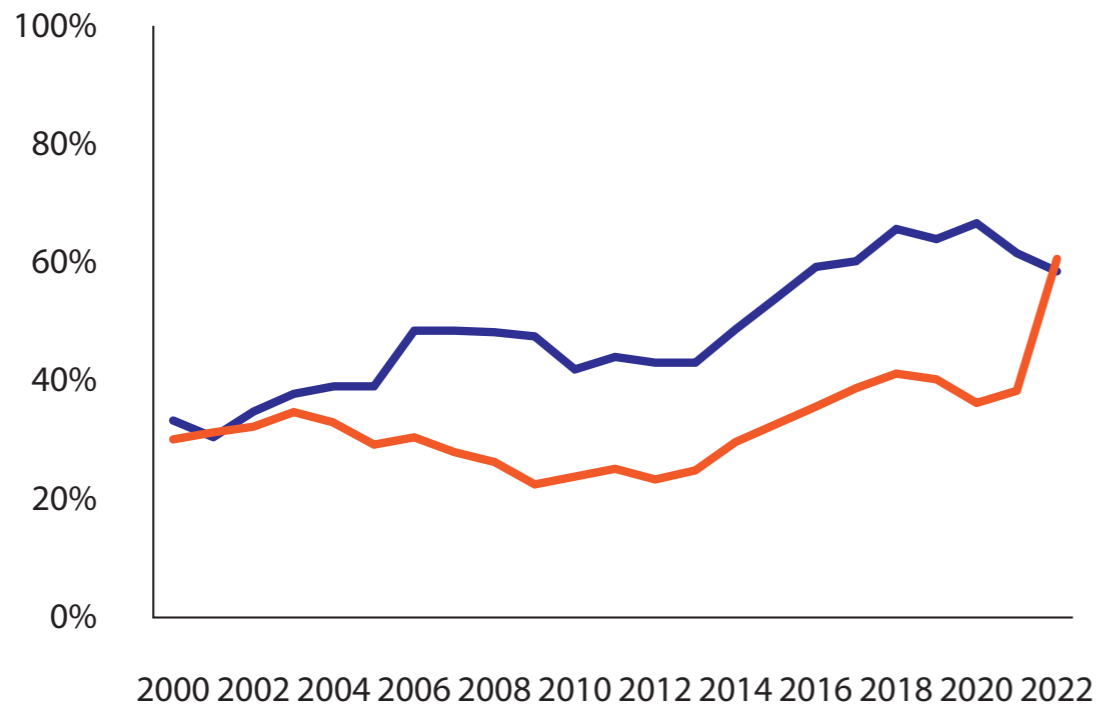
- Albania
- B & H
- N. Macedonia
- Montenegro
- Serbia
- Kosovo

- Albania
- B & H
- N. Macedonia
- Montenegro
- Serbia
- Kosovo

Source: Bruegel based on IMF Direction of Trade Statistics.

Figure 1b. The EU as an export destination (left) and import source (right) for EaP goods (% of total exports and imports respectively)

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— Moldova
 — Ukraine
 — Georgia

Source: Bruegel based on IMF Direction of Trade Statistics.

As illustrated in Figure 2, both regions have struggled with GDP per capita convergence to the EU27 average, recording moderate gains between 2011 and 2021. WB countries had higher initial GDP per capita level than the EaP countries (by approximately 10 percentage points of average EU27 GDP) but caught up less quickly up to 2021. In 2022, Ukraine and Moldova recorded reversals of their previous growth trends, because of Russian aggression against Ukraine.

The stagnating share of the EU27 in trade with the WB, and the moderate pace of convergence, provide the economic motivation for our analysis and for exploration of a possible connection to the legal regime set out in the SAAs.

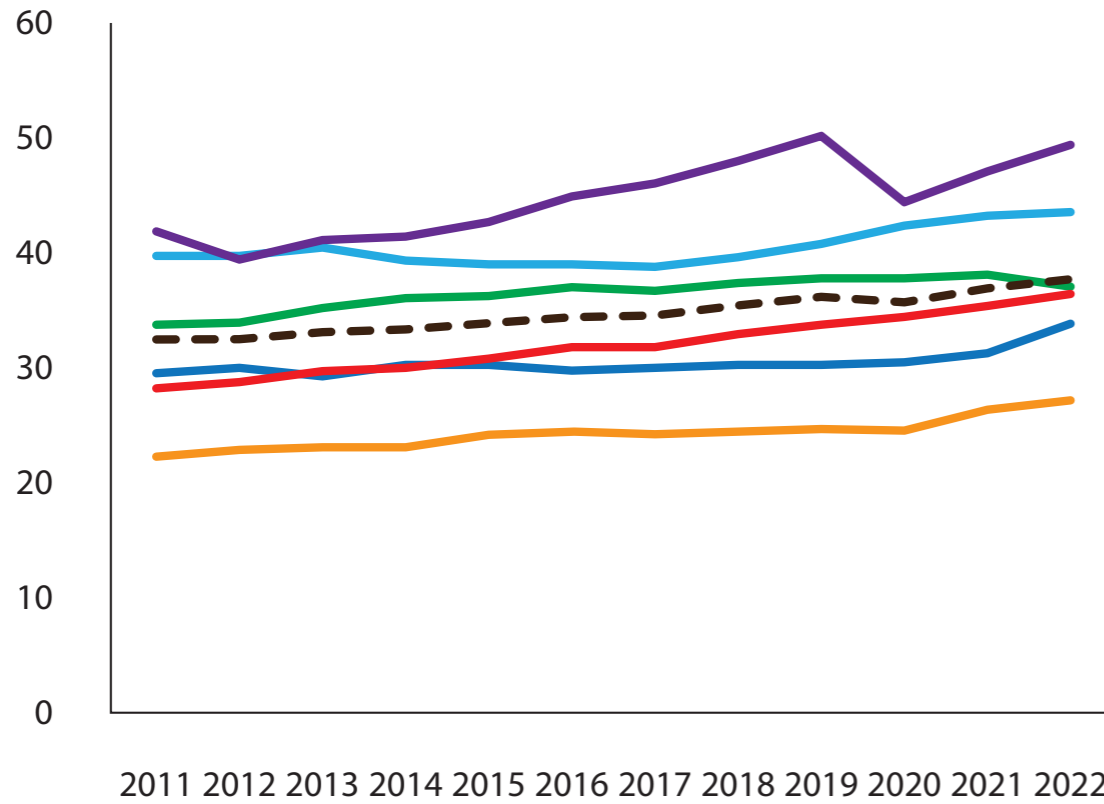
Based on our comparative legal and institutional analysis, we identify a number of differences between the agreements the EU concluded with the eastern European countries and the WB. Yet while differences in the legal governance of DCFTAs and SAAs would suggest WB economic underperformance compared to the EaP, because of a legal framework limiting WB integration into EU internal market in comparative perspective with the DCFTAs, this is not supported by the available economic evidence.

While these differences are significant deficiencies and should be addressed, we hasten to say that there is no compelling evidence that remaining shortcomings can causally be traced to the different legal treatments.

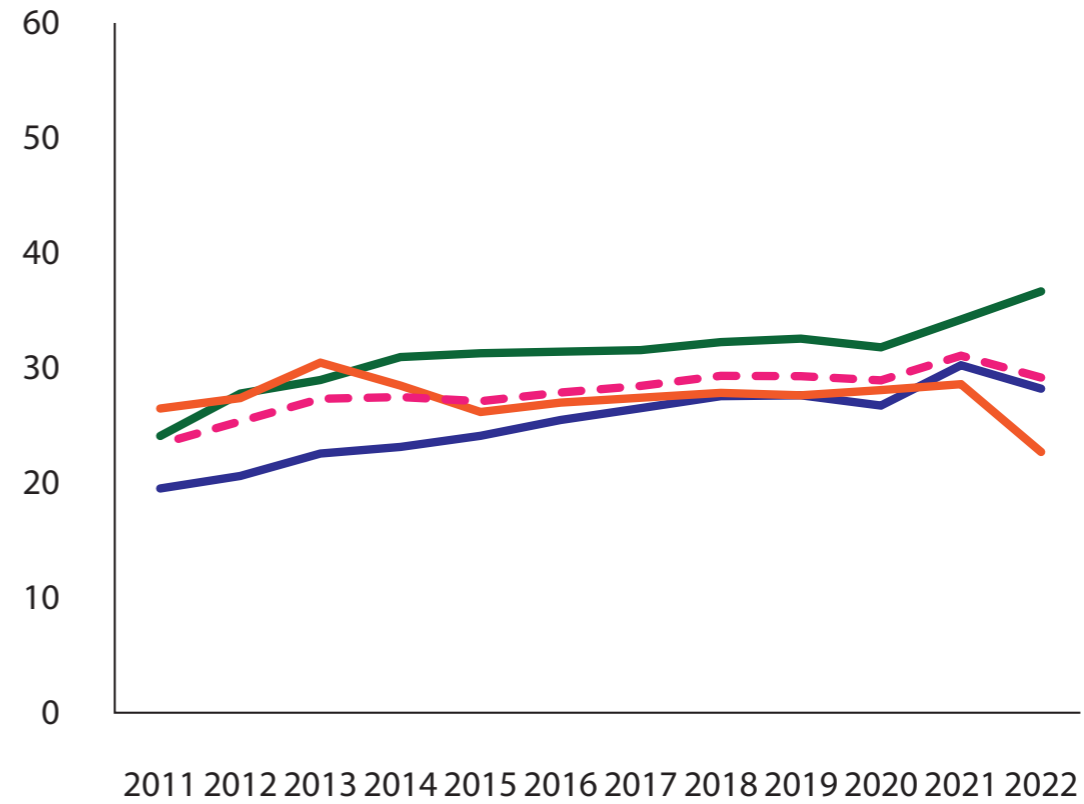
In any case, taking the DCFTAs as an example, the remaining constraints in the SAAs and in the new Growth Plan should be lifted to untap further potential for WB convergence with the EU internal market.

Figure 2a. GDP per capita in PPP (percent, EU27 = 100)

Western Balkans



Eastern Partnership



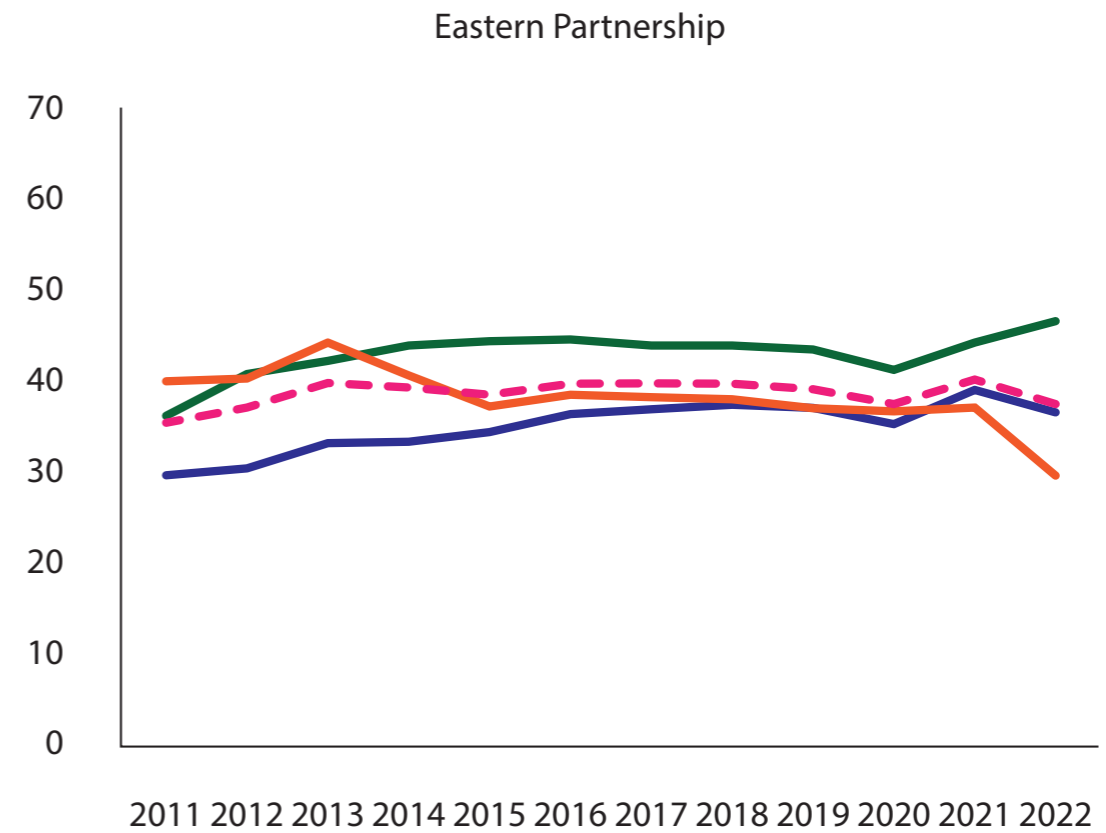
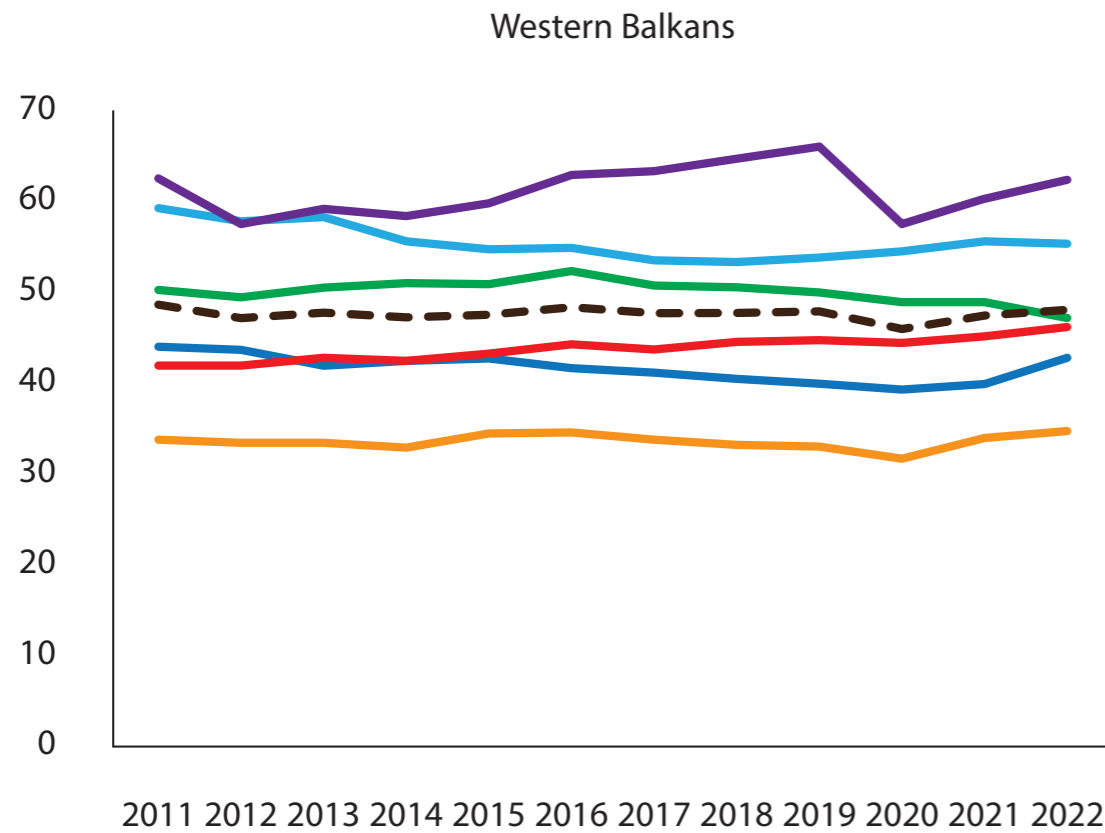
- Albania
- B + H
- N. Macedonia
- - - Western Balkans
- Montenegro
- Serbia
- Kosovo

- Moldova
- Georgia
- Ukraine
- - - Eastern Partnership

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Figure 2b. GDP per capita in PPP (percent, 10 central and eastern European countries = 100)

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- Albania
- B + H
- N. Macedonia
- - - Western Balkans
- Montenegro
- Serbia
- Kosovo

- Moldova
- Georgia
- Ukraine
- - - Eastern Partnership

Note: The Western Balkans and Eastern Partnerships dashed lines are simple averages. For an insight into convergence in the regions in general, a weighted approach to account for population may be more appropriate. However, the relevant metric for accession is the convergence of the countries in question, not the regions as a whole. These averages are only included for ease of comparison.

Source: Bruegel based on World Bank World Development Indicators.

Box 1. The nature and state of play of the Accession talks³

The EU accession process involves five main steps⁴. First, a country must apply to the Council of the EU to become a member. Article 49 of the Treaty on the European Union (TEU) stipulates that any European country that respects and commits to the values of the EU as expressed in Article 2 TEU can apply, and this is the stage that Kosovo is currently at.

The second step is a positive assessment of the Commission recommending the granting the candidate status. Third, candidate status is approved based on a unanimous decision of the European Council, which is what happened for Georgia for instance in December 2023. However, this does not necessarily mean that formal negotiations have been opened.

*The fourth step is the accession negotiations, which begin with a detailed examination (screening) carried out by the Commission, together with the candidate country, of each policy field (chapter), to determine how well the country is prepared. This initial screening exercise of the EU's *acquis* serves to identify levels of preparedness in each policy field (which Albania and North Macedonia completed in 2023).*

If completed satisfactorily, negotiations ensue focusing on six different thematic clusters, each consisting of various chapters; these negotiations take place at intergovernmental conferences (Montenegro, for instance, has opened negotiations on all chapters and closed three).

Fifth and finally, the process concludes when all chapters have been closed and an accession treaty is approved unanimously by the European Council and receives the consent of the European Parliament. Each EU country must also ratify the treaty according to its constitutional procedures (Dabrowski, 2014).

Country	Stage of process (early 2024)	State of play	Next step(s)
Western Balkans			
Albania	Applied for membership in 2009; candidate country since 2014; accession negotiations began in 2022 ⁵ .	The screening meetings (ie. prior to accession negotiations entailing analytical examination of the EU acquis) were completed in November 2023.	First negotiation cluster will begin once the roadmaps identifying rule of law and public administration reforms are assessed and approved ⁶ .
Bosnia and Herzegovina	Applied for membership in 2016; candidate country since 2022; accession negotiations opened in March 2024.	The Commission noted positive steps towards meeting key priorities and opening negotiations following the awarding of candidate country status, but recent rule of law developments have proved a barrier.	Preparation of the negotiating framework.

Kosovo	Applied for membership in 2022; currently a potential candidate country ⁷ .	The European Reform Agenda was adopted in 2016 and updated in 2021 between the Commission and Kosovo to guide the implementation of SAA reforms. Due to a lack of de-escalatory measures regarding rising tensions with Serbia, the EU froze various cooperation and funding mechanisms in 2023 (European Commission, 2023d).	The frozen measures are temporary and will be reversed if and when authorities take satisfactory de-escalatory steps and implement commitments related to Serbia. The next steps of the accession process are unclear.
Montenegro	Applied for membership in 2008; candidate country since 2010; accession negotiations began in 2012.	Since 2012, all negotiating chapters have been opened, with three closed. The enlargement methodology was revised in 2021 to place more emphasis on fundamental reforms and reinvigorate the process.	Further progress on the rule of law chapters is necessary before any others are provisionally closed.

North Macedonia	Applied for membership in 2004; candidate country since 2005; accession negotiations began in 2022.	The screening meetings were concluded in December 2023.	First negotiation cluster will begin once the roadmaps identifying rule of law and public administration reforms are assessed and approved ⁸ .
Serbia	Applied for membership in 2009; candidate country since 2012; accession negotiations began in 2014.	Since 2014, 22 negotiating chapters have been opened, with two closed. The enlargement methodology was revised in 2021 to place more emphasis on fundamental reforms and reinvigorate the process.	The rate of progress in the rule of law chapters and in the normalisation of relations and de-escalation with Kosovo dictate the pace of negotiations.
Eastern Partnership			
Georgia	Applied for membership in 2022; candidate country since December 2023; accession negotiations yet to begin.	Due to progress on the 12 identified priorities since the application was made, candidate country status was granted on the understanding that nine steps would be taken.	Progress must continue on the nine steps detailed in the November 2023 Communication ⁹ on enlargement.

Moldova	Applied for membership in March 2022; candidate country since June 2022; Council decided to open accession negotiations in December 2023.	In the June 2022 Commission Opinion (European Commission, 2022a) on Moldova's application recommended to grant candidate status on the understanding that nine steps were taken. As of November 2023, six of the nine steps were completed.	Accession negotiation framework will be adopted once the three recommendations in the November 2023 Communication ¹⁰ on enlargement are completed. Screening began in January 2024 ¹¹ .
Ukraine	Applied for membership in March 2022; candidate country since June 2022; Council decided to open accession negotiations in December 2023.	June 2022 Commission Opinion (European Commission, 2022b) on Ukraine's application recommended to grant candidate status on the understanding that nine steps were taken. As of November 2023, six of the nine steps were completed.	Accession negotiation framework will be adopted once the four recommendations in the November 2023 Communication ¹² on enlargement are completed. Screening began in January 2024.

2 Comparing DCFTAs and the Western Balkan SAAs in terms of EU market integration

This section highlights differences between the legal regimes governing market access for the eastern European countries of Ukraine, Moldova and Georgia (on basis of DCFTAs) and the applicable framework under the Western Balkan SAAs. Differences are explored in relation to five benchmarks: conditionality, non-tariff barriers to trade, trade in services, movement of capital and the approximation of laws.

Annex I provides a comprehensive comparative assessment of the relevant agreements and the applicable rules, while this section discusses some of the marked differences. What facilitates the comparison (while highlighting the stark differences between the regimes) is a large degree of homogeneity in agreements within each group – within DCFTAs and Western Balkan SAAs. For the purpose of making comparisons, the Serbia SAA¹³ will be the reference point for the WB SAAs, while the Ukraine AA/DCFTA¹⁴ is referred to to exemplify the agreements the EU concluded with the eastern European partners.

2.1 Regional integration as conditionality

One core distinguishing feature between the DCFTA and the WB SAAs is the degree of conditionality attached to intra-regional integration as a precondition for further access to the EU internal market.

Most recently, this emphasis has been reiterated in the draft New Growth Plan, which, as an extension of the WB SAAs, makes single market access conditional not only on political and economic domestic structural reforms, but on the progress made in intra-regional market integration.

The Serbia SAA emphasises regional cooperation by requiring the WB country to “*enhance its cooperation*” and to “*implement fully the CEFTA*” (Article 14 Serbia SAA) – the Central European Free Trade Agreement governing trade relations between the WB states.

The Serbia SAA further requires the conclusion of additional bilateral conventions with WB countries that foster political dialogue, establish free trade, cooperation in justice affairs and provide free market access more globally (Article 15 Serbia SAA).

This conditionality has been constantly upheld in the EU's policy on the WBs, with the most recent draft Growth Plan tying access to EU internal market benefits and the release of funds under the draft Reform and Growth Facility (the financial assistance vehicle of the plan) (European Commission, 2023b) to a wide set of reforms.

This extends not only to traditional conditionality securing the Copenhagen criteria, including democracy, rule of law and human rights (which apply to WB and EaP countries alike). In the case of WB, the political conditionality also extends to requiring Serbia and Kosovo to normalise their relations and comply with the relevant agreements governing reconciliation, and to negotiate the Comprehensive Agreement on normalisation of relations (European Commission, 2023b, Article 5).

Importantly and in addition, the EU requests economic intra-regional integration as precondition and conditionality attached to access to the EU single market. For example, the Commission envisages making access to EU financial support through its draft Reform and Growth Facility (European Commission, 2023b) conditional ex ante on the implementation of the Common Regional Market Action Plan.

This Plan is the outcome of the Common Regional Market Initiative of the WB countries, which builds on the CEFTA framework (and thus connects to the conditionality embedded in the SAA). The Plan requires, inter alia, the development of a regional digital market, which requires investment in broadband internet access, 5G and digital services.

The Plan also foresees expansion of green lanes at the border to cut waiting times. Hence, the extended conditionality regime allows the EU to make internal market access and access to funding conditional on WB ex-ante investment in these areas.

This conditionality contrasts with the absence of mandatory regional cooperation under the DCFTAs. The agreements are silent on this type of intra-regional conditionality. Specifically, the Ukraine-DCFTA provides for “*regional stability*”, stipulating a vague obligation for Ukraine, Moldova and Georgia to “*intensify their joint efforts to promote stability, security and democratic development in their common neighbourhood*” (Article 9 DCFTA Ukraine).

The main conditionality in the Ukraine-DCFTA is the approximation of the relevant EU law by Ukraine along with the Copenhagen criteria, which must be respected by all EU aspirants. However, the DCFTAs lack the intra-regional layer of conditionality that the EU, in relation to the WB, has increasingly insisted on.

Not only are the DCFTAs lenient on regional integration as a requirement, the question is also whether the EU’s persistent insistence on regional economic cooperation is an adequate requirement. Intra-regional conditionality is plausible if it seeks to alleviate political rifts between Serbia and Kosovo, and societal tension and political blockages in decision-making (European Commission, 2023a; Ghodsi *et al* 2022). But the economic intra-regional conditionality referred to above appears much more ambivalent.

On one side, creating a common regional market for goods, services and labour within the Western Balkans offers opportunities for increased trade – according to one estimate¹⁵, regional economic integration in the Western Balkans could generate up to 2.5 percent of GDP growth, should the level of integration reach the level of that of the European Free Trade Association (EFTA), while it could even generate up to 7 percent should it reach the EU’s level of integration.

The most ambitious initiative negotiated in this regard is the creation of the Common Regional Market¹⁶ as an outcome of the Berlin Process, launched in 2020¹⁷. It foresees WB intra-regional freedoms of goods, services, capital and people, including aspects relating to digital, investment, innovation and industry policy.

On the other side, barriers to intra-regional economic integration lie in the lacking physical infrastructure and persistent inequality in the WB. In particular, lack of public investment in roads, digital infrastructure, railways and energy have been identified as limiting factors (Ghodsi *et al* 2022).

The Commission itself noted in its November 2023 Communication on enlargement that *“there is a strong need to upgrade infrastructure; investments should be... consistent with the priorities agreed with the EU”* (European Commission, 2023c, p.11).

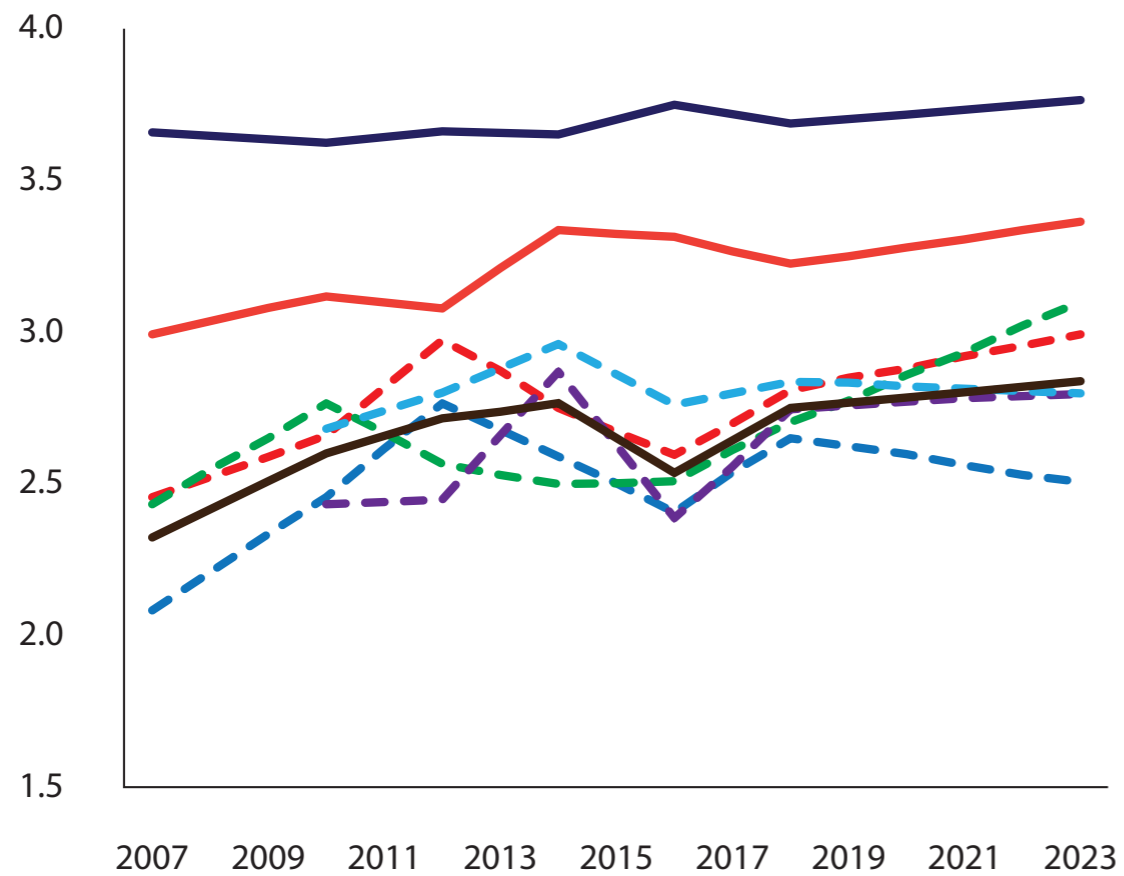
Panel B of Figure 3 highlights the limited progress achieved on improving the trade-related intra-regional infrastructure and in closing the gap with the EU, using the broader logistics performance index¹⁸ (Figure 3, Panel A), similarly showing low levels of convergence.

Even the central and eastern European EU members (a more adequate group for comparison with WB countries) seem to have been more successful in improving trade-related infrastructure by reducing the gap with other EU members. However, convergence has not been better across the same indicators for the EaP countries (see Annex 4).

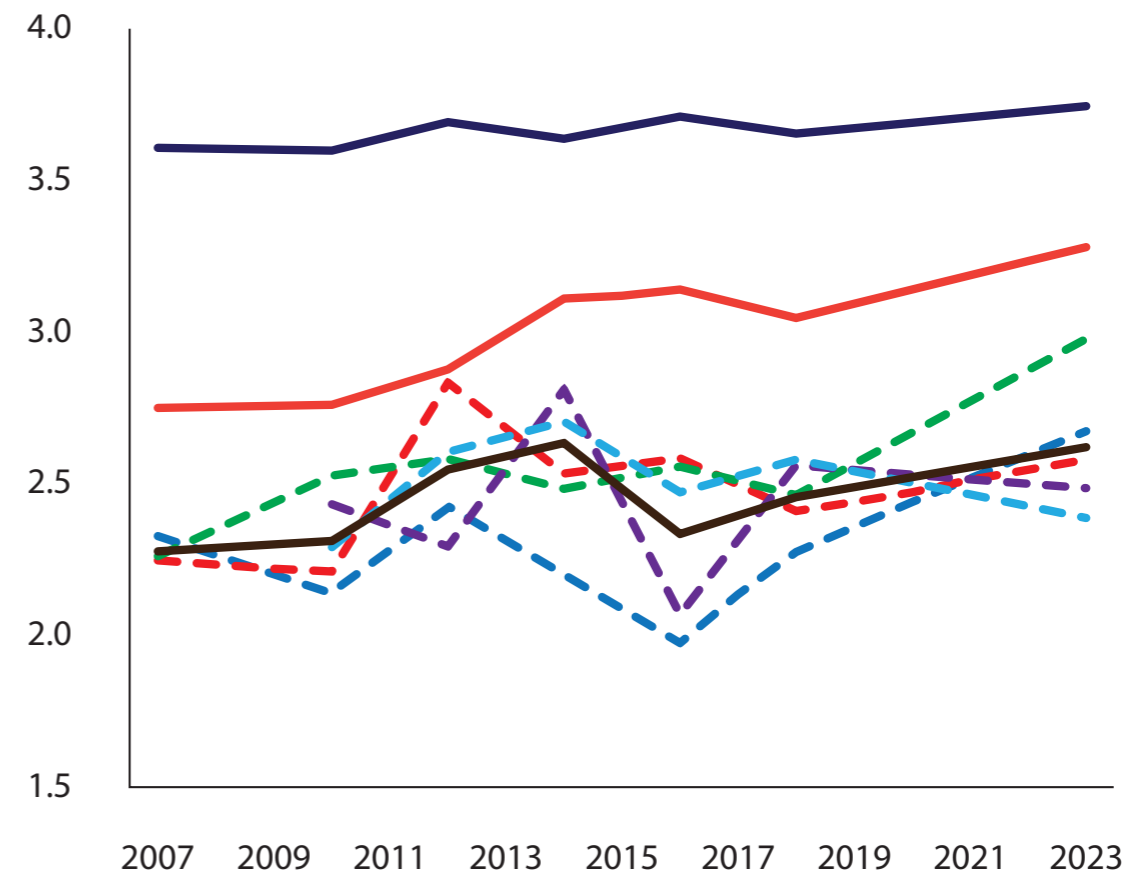
The connection to conditionality is that with limited public investment in infrastructure identified as one persistent barrier to regional integration in the WB²⁰, the EU should not implement ex-ante conditionality on WB public

Figure 3. Logistics and trade-related infrastructure

Logistics performance index



Quality of trade and transport related infrastructure



- - - - - Albania
- - - - - B + H
- - - - - N. Macedonia
- - - - - Western Balkans
- - - - - Montenegro
- - - - - Serbia
- - - - - CEE 10
- - - - - Rest of EU

- - - - - Albania
- - - - - B + H
- - - - - N. Macedonia
- - - - - Western Balkans
- - - - - Montenegro
- - - - - Serbia
- - - - - CEE 10
- - - - - Rest of EU

Note: Data is available for 2007, 2010, 2012, 2014, 2016, 2018 and 2023. Data for Serbia, Montenegro and Georgia unavailable for 2007. Data for Albania is unavailable for 2014. Data for Kosovo unavailable throughout. WBs is a simple average of the relevant countries. CEE 10 and Rest of EU refer to the simple averages of the central and eastern European countries that joined the EU in the 2000s¹⁹ and the other 17 EU countries, respectively. See Annex 4 for the same exercise for EAP countries.
 Source: Bruegel based on World Bank Logistics Performance Index.

investments in digital infrastructure or crossborder trade facilities, as set out in the Common Regional Market Action Plan (eg. lanes at borders or customs procedures).

The EU should fund these 'win-win' investments, which are beneficial to the WB and the EU alike, rather than blocking EU internal market access because of the lack of these investments. This concerns in particular crossborder infrastructure and networks that are often underfinanced because of a mismatch between costs and benefits and that are, under EU internal market standards, typically eligible for funding. WB infrastructure should be prioritised accordingly. Conditionality attached to these kinds of projects is not a sensible approach.

In fact, intra-regional crossborder transport infrastructure has significant positive spillovers, such as the potential to reduce income disparities across the EU and its neighbouring regions.

In this regard, it is positive that the draft Growth Plan implies revising the trans-European transport framework (TEN-T), in order to include a new corridor crossing the Western Balkan region (Western-East Mediterranean corridor), and the EU's recent Economic and Investment Plan for the Western Balkans offers financing of rail transport²¹.

However, conditionality of the new Growth Plan should be relaxed for these infrastructure projects more generally and the involvement of European Investment Bank and the European Bank for Reconstruction and Development funding in the investment should be further facilitated (Ghodsi *et al* 2022).

Finally, conditionality should also be rethought in light of geopolitical rivalry. EU conditionality contrasts with Chinese investment in the region without strings attached, which makes Chinese FDI more attractive.

Again, the legal comparison of WB SAAs with the DCFTAs shows that the latter offer a more explicit acknowledgement of internal market integration. The Ukraine AA is explicit about its objective of bringing Ukraine into the EU internal market (Article I (d) of the Ukraine-DCFTA), while such an explicit recognition of this objective is absent from the Serbia SAA, in which language is limited to “*gradually develop a free trade area between the Community and Serbia*” (Article 1 (f) Serbia SAA).

While more assertive language in the agreements does not guarantee more favourable economic outcomes, specifying the objective in the agreement can bind the institutions under the SAA to work towards that goal.

2.2 Trade in goods and non-tariff barriers

The EU-Ukraine association agreement has been praised by European Commission officials as “*the most ambitious Agreement that the EU has ever developed with any partner*”²².

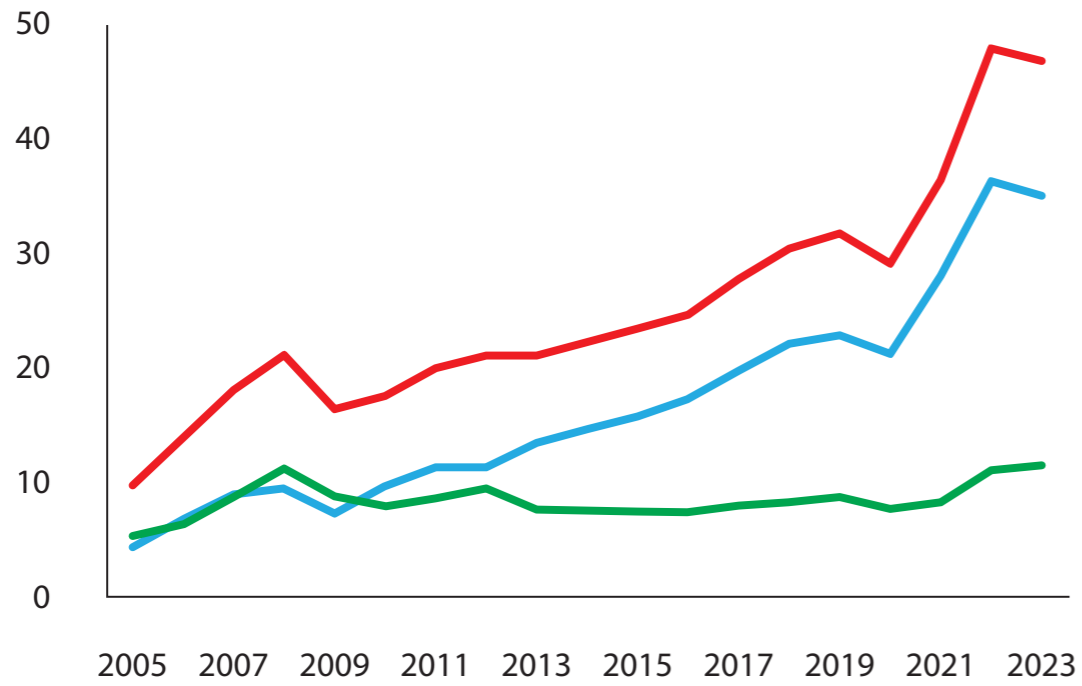
Indeed, by integrating the DCFTA into the Association Agreement, the integration of Ukraine, Georgia and Moldova into the EU has been propelled through wide-reaching market access and regulatory approximation, ushering in increased trade with the EU.

How do the agreements facilitate market integration? The WB SAAs have eliminated tariff barriers with the EU to a great extent, and trade with the region has grown by almost 130 percent over the past 10 years.

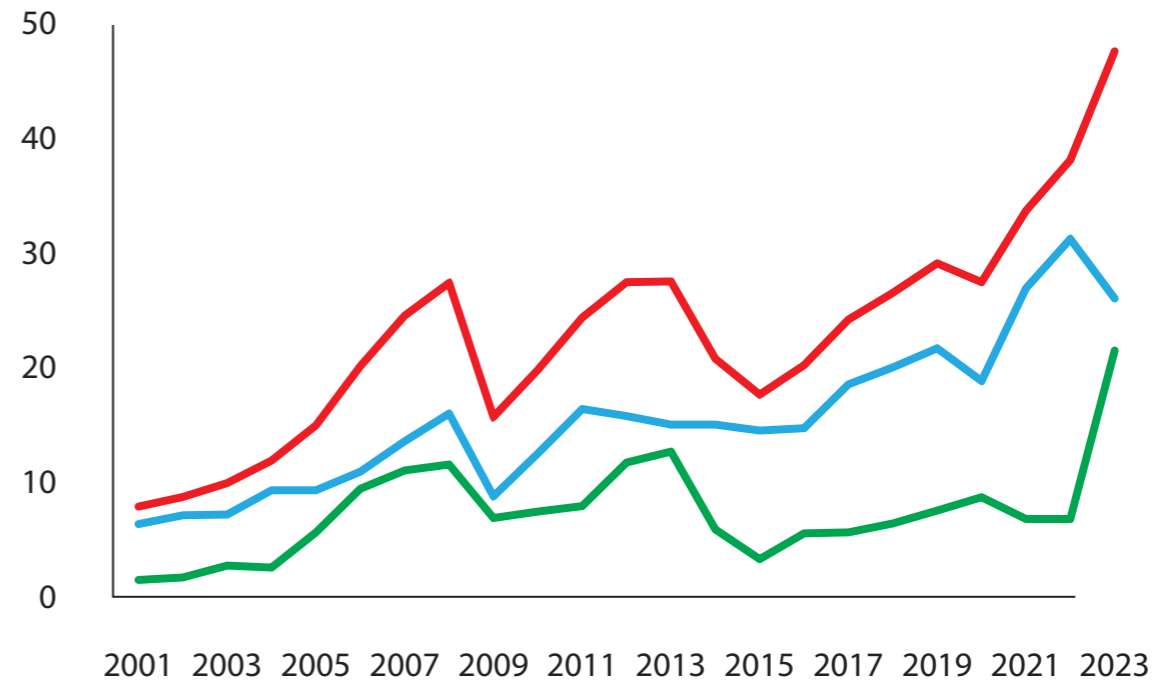
Figure 5 confirms that trade between the EU and WB has grown in absolute terms (though did not further increase the already high levels in relative terms, Figure 1), and there is no indication of being outpaced by the Eastern Partnership countries. Yet, non-tariff barriers (NTBs) remain significant – both barriers with the EU and within the Western Balkans region.

Figure 4. EU27 trade in goods with WBs (left) and EaP countries (right), € billions

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— Imports
— Exports
— Balance



— Imports
— Exports
— Balance

Note: See Annex 2 for data disaggregated by country.
Source: Bruegel based on Eurostat (DS-018995).

NTBs can generally be associated with technical regulations, customs procedures, licensing requirements and other regulatory obstacles, all of which limit trade through increased costs, delays and administrative burdens.

For example, the waiting and processing time only at crossing points in CEFTA states generates between €250 million and €300 million in costs annually (World Bank, 2015). While reliable data on the scope of NTBs is limited, some proxies indicate their presence.

For instance, World Bank Trading Across Barriers data points to higher costs, both financial and in terms of time taken, associated with border and documentary compliance for importing goods to the Western Balkan countries, than to the EU or high-income OECD countries (Annex 5). While the same data limitations make it difficult to identify non-tariff barriers in EaP countries, the consensus is that they also pose challenges to trade in these countries.

Comparative legal analysis of the treatment of NTBs reveals a more detailed legal regime in the Ukraine DCFTA in three respects. First, the Serbia SAA does not foresee a non-discrimination rule regarding non-tariff measures, while the Ukraine DCFTA established a national treatment rule (Article 34).

It has been argued that the current legal reference to freedom of goods in the SSA should be interpreted in line with EU law and would thus suffice to ban non-tariff barriers (Sretić, 2023).

Second, the Ukraine DCFTA explicitly addresses technical barriers to trade (TBTs), in particular the *“adoption and application of technical regulations, standards, and conformity assessment procedures”* (Article 53).

Again, the Serbia-SAA is silent on the treatment of technical barriers to trade. The CEFTA addresses TBTs and provides for a governance structure to minimise them (Article 13). There have been further attempts to address

NTBs in the WB intra-regional integration process. For example, the Common Regional Market (CRM) has established green lanes at borders within the region.

Through better exchange of customs data before goods arrive at crossing points, the transit times for goods have greatly reduced (European Commission, 2023a). The draft Growth Plan, while requesting alignment with EU standards, does not foresee a regime to address further eradication of NTBs.

Yet overall the lack of salience of TBTs in the SAAs does not correspond to the significance of this source of impediment to market integration. Estimates suggest that a three-hour reduction in waiting times is the equivalent of a 2 percent reduction in tariffs (Del Mar Gomez *et al* 2023).

The OECD has considered the trade reducing effects of being outside the single market associated with TBTs and sanitary and phytosanitary measures (SPS) measures, suggesting these costs amount to 50 percent of the ad-valorem equivalent of measures on goods imported into the European Union from third countries (RCSPI, 2023). We infer that NTBs remain under-addressed at the level of the SAA agreements between WB countries and the EU.

Reducing NTBs is pivotal. Slow customs procedures are often the result of lacking infrastructure. For example, electronic payment of duties and charges and pre-arrival processing are essential infrastructure elements, lacking in all CEFTA economies. Serbia and Montenegro are reported not to offer the option of paying the fees for exports online (GIZ, 2022).

As argued above in relation to crossborder infrastructure and networks, infrastructure facilitating customs procedures should qualify for EU funding without (or with limited) conditionality, because the positive intra-regional economic effects are significant. The EU should allocate financial resources to the modernisation of such

facilities, in particular infrastructure that facilitates the payment of duties, taxes and other fees for the importation process.

In addition, mutual recognition also helps to reduce waiting times caused by scanning procedures and sample testing. The EU has created separate lanes with WB countries, and the same practice should be applied between WB countries (GIZ, 2022).

Again, where EU funding could facilitate this, there should be unconditional support for expanding joint crossing point facilities and establishment of separate lanes.

Likewise, concerning intra-regional commerce with 'mutual recognition' having proved itself as a motor for fostering intra-EU trade, WB countries should pursue recognition of conformity assessments procedures across the CEFTA region. The CEFTA provides the framework for this both in the field of SPS measures and NTBs more generally, but the available legal space under the agreement for eradicating NTBs (Articles 12, 13 CEFTA) should be exploited further.

In particular, Article 13 para. 4 CEFTA paves the way for WB countries to implement "*mutual recognition of conformity assessment procedures*", offering a powerful tool for eliminating non-tariff barriers.

Finally, the EU should see advantages for itself not only in liberalising access to the internal market but also in outbound investment into the WB region. Access to the EU internal market and EU-financed crossborder infrastructure would reduce WB dependence on geopolitically risky partners.

For example, given Serbia's persistent dependence on Russian energy supplies, the EU should integrate the WB into its energy internal market by fostering the construction of electricity and gas connections – in the EU's own best interest and without conditionality.

At a time when economic security is becoming so important, helping to integrate the WBs into the supply chain could be very useful and help reduce dependencies. The Trans-Balkan electricity corridor is a good example²³, but further energy-oriented EU investments efforts could be directed to financing solar-energy capacity in the Western Balkans or wind and hydropower projects (Ghodsi *et al* 2022).

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. With EIB and ERBD expanding targeted loan guarantees to firms investing in these areas, the investment potential would be increased (Ghodsi *et al* 2022).

The draft Growth Facility aims at accelerating the green transition towards decarbonisation and to boost innovation, particularly for SMEs and in support of the green transition, yet no reference is made in the draft Facility to technological and industrial support to that end.

Energy-related infrastructure is an important policy field in view of the politically controversial energy dependence of WB countries on Russia (in particular Serbia). However, the CEFTA agreement is silent on issues of infrastructure, energy or gas supplies, leaving untapped a natural area of cooperation.

While integration into Europe's energy markets is part of the goals under the Serbia SAA (Article 109), there is no provision for translating these goals into substantive market access and specific cooperation obligations.

By contrast, the Ukraine DCFTA offers a comprehensive and substantive regime on energy, covering, inter alia, prohibition of trade-restrictive measures and striving for the emergence of energy markets (Article 338).

As long as there is no integration into EU energy markets in the WB, trade in energy will be constrained significantly by insufficient investment in transmission infrastructure and production capacity. China and Russia are likely to fill a void left by the EU, using state-driven investments in essential infrastructure in the WB (Stanicek, 2022).

Against this background, a proposal worth exploring on the level of implementation is to integrate the Western Balkans fully into the EU emissions trading system (ETS), which would accelerate the energy transition in the WB and be a significant new source of funding (Egenhofer, 2023).

2.3 Freedom of services

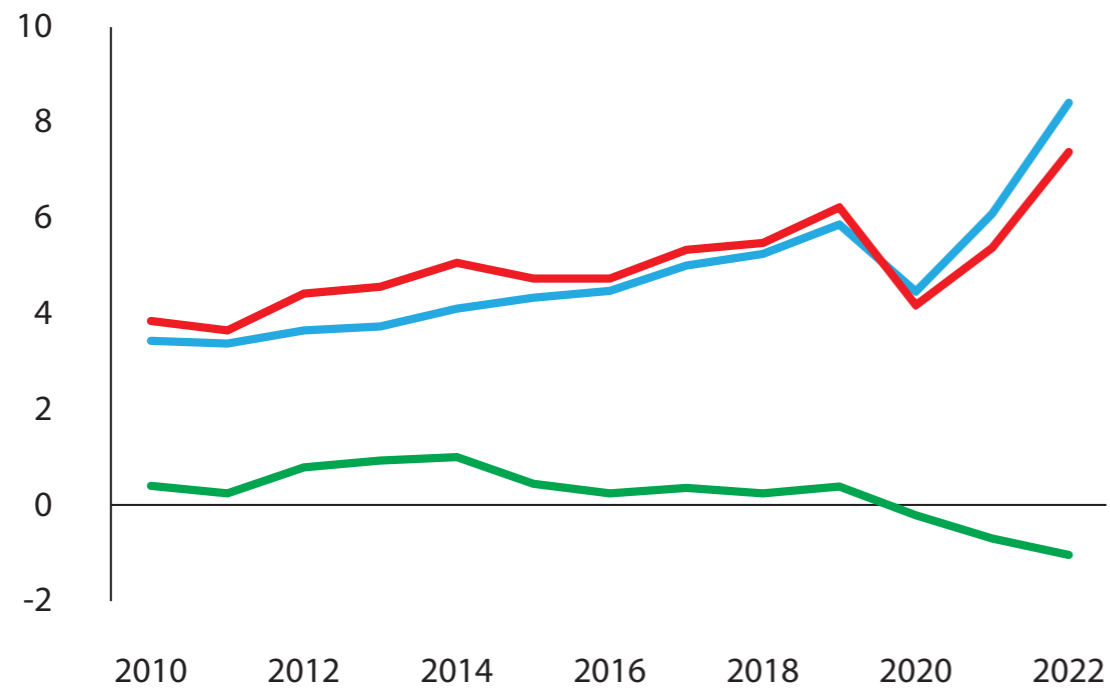
From a comparative perspective, data on trade in services shown in Figure 6 indicates that WB services trade with the EU has grown less quickly than goods trade (compare with Figure 4). Also, EU services exports have grown more quickly with the EaP than with the WB, though from a very low basis.

One reason for this may be associated with the shortcomings in unleashing the potential of services, which can be illustrated by the inferior treatment of services in the Western Balkans SAAs compared to the Ukraine DCFTA. The EU-Ukraine DCFTA establishes a non-discrimination standard for Ukrainian services provided in the EU.

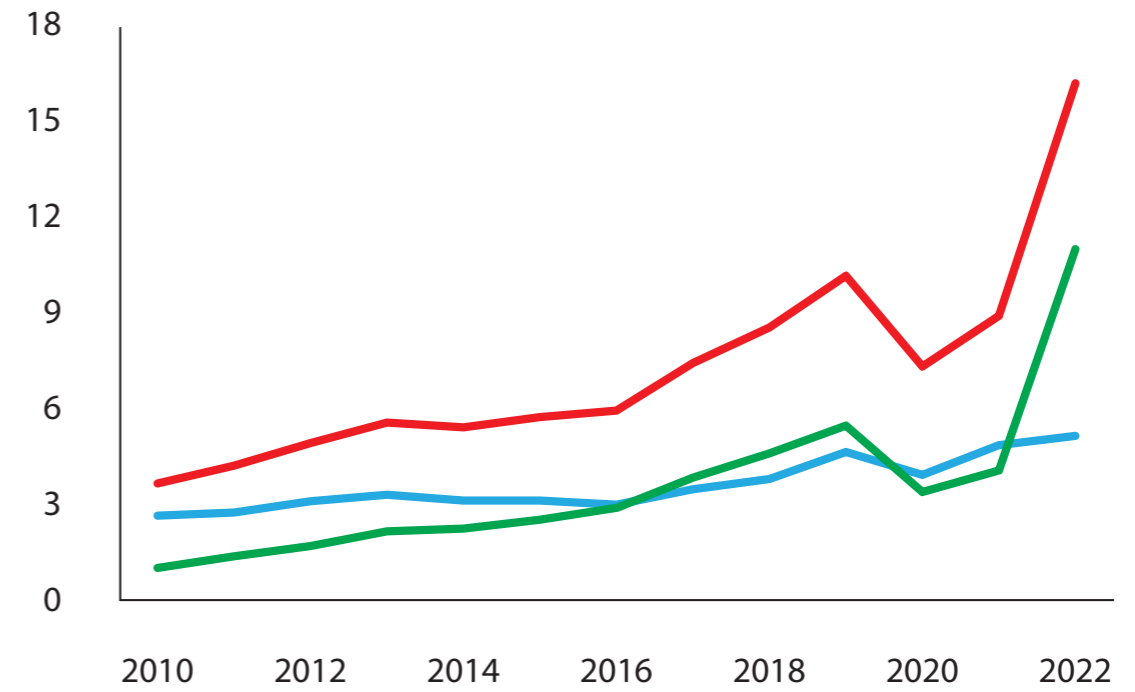
Specifically, these services must be granted “*treatment no less favourable*” than EU domestic services (Articles 93, 94). While this does not apply to all services, it extends to an extensive list of services. Consequently, the available evidence on Georgia supports the idea that its services sector has been expanded, with exports more than doubling in size since the entry into force of the DCFTA between 2014 and 2019 (Akhvlediani *et al* 2022).

Figure 5. EU27 trade in services with the Western Balkans (left) and EaP (right), € billions

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— Imports
— Exports
— Balance



— Imports
— Exports
— Balance

*Note: Data for Kosovo is not available. Data is presented from the perspective of the EU. See Annex 2 for data disaggregated by country.
Source: Bruegel based on Eurostat (bop_its6_det).*

The Serbia SAA does not stipulate a no-discrimination principle similar to the Ukraine DCFTA. The Serbia SAA provides that the EU may not take measures that are “*significantly more restrictive*” than the situation before the Serbia SAA. It also provides procedurally for the EU and the WB to engage in “*steps to allow progressively the supply of services.*”

Yet, this procedural potential has not so far been exploited, while substantive law liberalisation of services remains weak compared to the non-discrimination rule under the DCFTAs. Even the CEFTA does not provide unconditional liberalisation of services on intra-regional level.

The legal comparison points at the absence of rules providing for substantive discrimination prohibitions and the lack of regulatory harmonisation. This contrasts with the non-discrimination clearly spelled out in the agreement on trade in goods. Regulatory harmonisation (or mutual recognition) would be particularly beneficial in core service areas of the region, such as travel and transportation (RCSPI, 2023).

2.4 Capital movement

The EU accounts for approximately 60 percent of the current FDI stock in the Western Balkans²⁴, but there is no indication that FDI is treated more favourably in either the Western Balkan or the countries of Eastern Partnership.

The rules laid down in the relevant agreements indicate a high degree of capital movement freedom. Established through a ban on discrimination, capital movement is guaranteed both in the WB (Article 63 Serbia SAA) and in the Ukraine (Article 145 Ukraine DCFTA). Both types of agreements explicitly extend the free movement of capital to direct investments.

However, specific relevant sectors enjoy less-favourable treatment in the WB. For the financial sector, for example, DCFTA agreements offer an elaborate regime to promote the access of European investment in the Eastern partnership countries.

Access is granted to payment systems (Article 132 Ukraine DCFTA), regulatory approximation is required (Article 133) and bans on discrimination exist (Article 128). By contrast, the WB SAAs emphasise that financial services are subject to significant restrictions (Articles 54, 56 Serbia SAA).

Figure 6 shows that, much like for trade, EU FDI in the two regions is mainly into Serbia and Ukraine respectively (however, see Annex 3 for a breakdown of EU FDI into the various countries as a share of their GDP)²⁵.

The evidence suggests that FDI could be driven, more than the other freedoms we have discussed, not only by the openness of market access but by factors beyond the absence of barriers to moving capital. This is also evidenced by the experience of Bulgaria and Romania.

Both saw a one-time surge in FDI after accession to the EU, but have remained at pre-accession levels since. Rather, factors associated with state-driven investment and geopolitical competition have significant effects on FDI in the WB. The EU has historically been the dominant investor in the WB (See Annex 3).

In any case, a legal regime that secures non-discriminatory treatment of capital movement does not offer a complete picture on possible vulnerabilities related to FDI. This is so because state-funded, non-EU foreign investment increasingly outcompetes EU private investment. Some research points to a growing Chinese investment footprint in the region, especially in Serbia (Vulović, 2023; Bykova *et al* 2022), which seems to be driven

Figure 6a. EU27 FDI stock in the Western Balkans (€ billions)

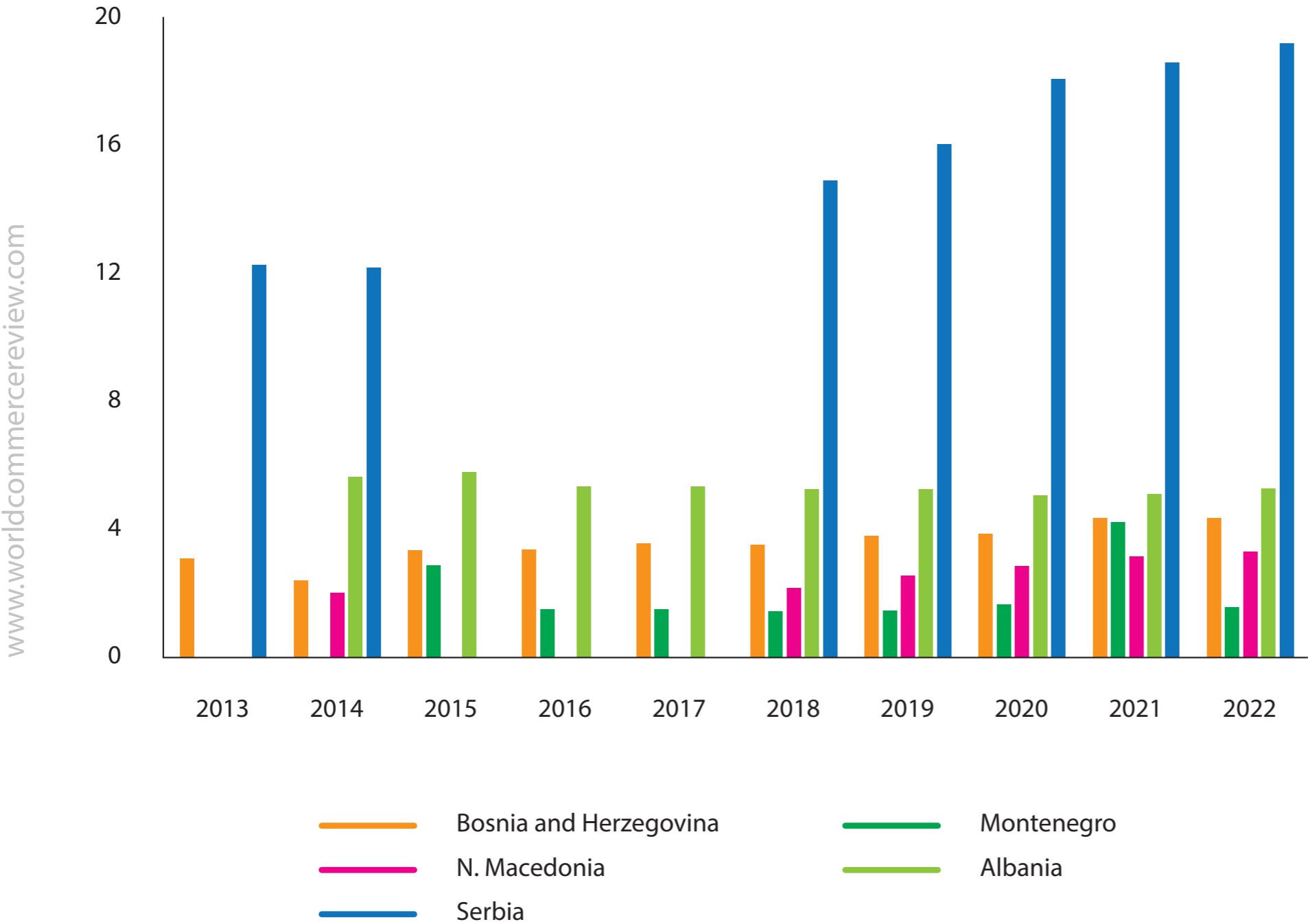
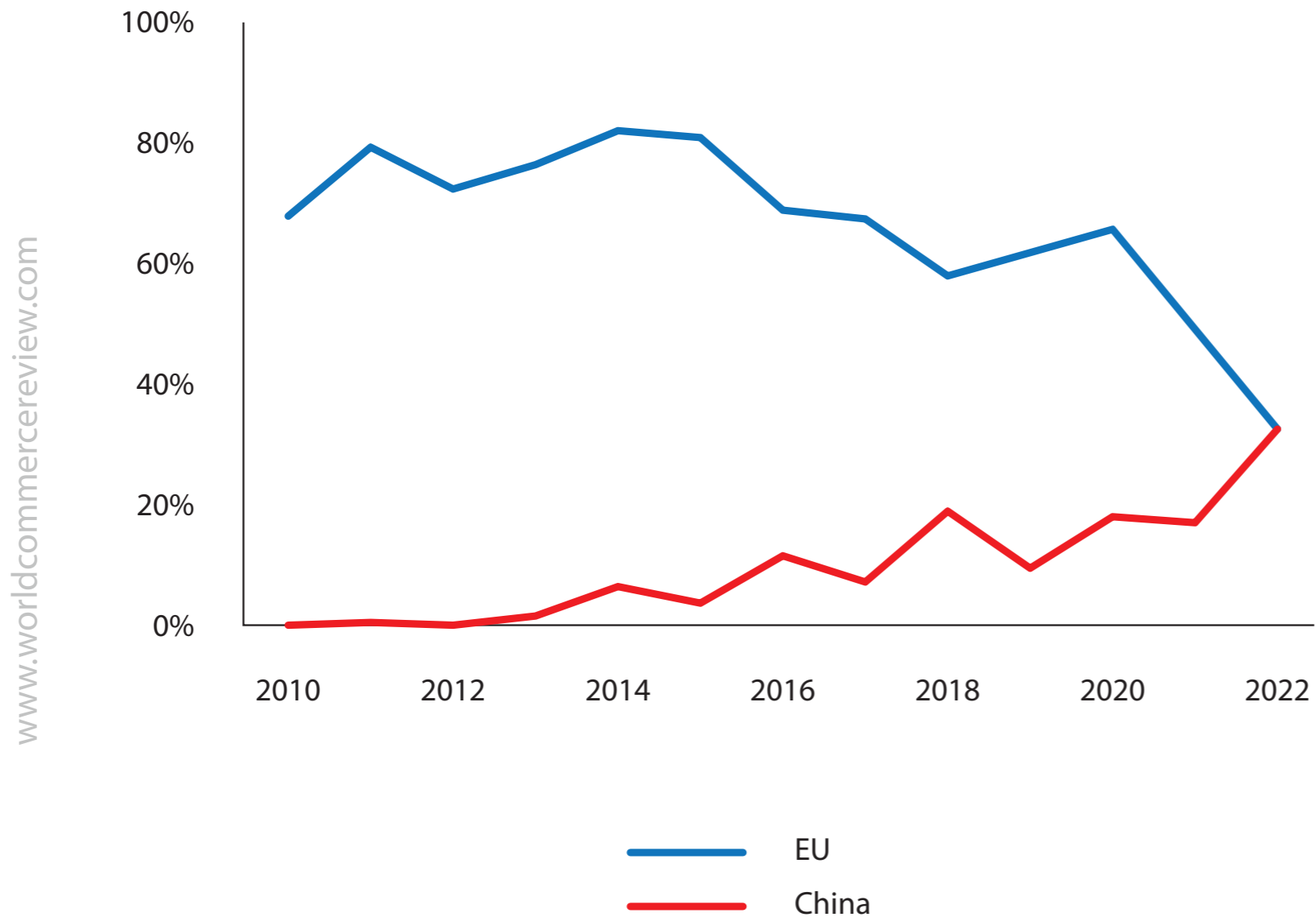


Figure 6b: EU27 FDI stock in the EaP (€ billions)



*Note: The lack of data in some years is due to data not being reported by Eurostat for confidentiality purposes.
Source: Bruegel based on Eurostat (bop_fdi6_geo).*

Figure 7. Share of net FDI flows to Serbia, 2010-2022



Note: The variable reported is the share of the EU27 and China net FDI in overall net FDI in Serbia. Net FDI is calculated as the difference between assets (Serbian residents' investments abroad) and liabilities (non-residents' investments in Serbia). Over this period there was consistently a larger inflow of investment into Serbia than outflow. This figure shows the share of that net inflow of FDI that comes from the EU27 and China.

Source: Bruegel based on National Bank of Serbia²⁶.

by state-owned investors or by state-guaranteed finance linked to contract guarantees for Chinese companies (Ghodsí *et al* 2022).

Indeed, this increase in Chinese investment in Serbia is supported by China's growing share in net FDI flows to Serbia (Figure 7).

Dependence on countries perceived (from a European perspective) as geopolitical rivals increases the WB's vulnerability to geopolitical turmoil. A high EU share of FDI in turn should align EU and WB interests.

Furthermore, from the EU perspective, FDI in WB is self-serving, as one element of a 'de-risking' strategy, put in place by incentivising European firms to shift production closer to home, with the Western Balkan as one region in which geopolitical competition takes place.

As mentioned above, the ERBD and EIB can play an important role in promoting EU FDI in the region and in maintaining the FDI-based ties between the EU and WB, thus sidelining investment from geopolitical rivals. Through these institutions, the EU should develop and enhance the capital market in the region, in particular by stimulating investment by smaller firms in the region (Ghodsí *et al* 2022).

Both EU outbound investment promotion and inbound investment control can play roles here. Outbound EU investment to WB has positive implications (both for the EU and WB countries) beyond market opportunities and should be promoted through available incentivising instruments, while WB inbound investment control becomes increasingly important in light of the state-driven and strategic investment of China and Russia in the region.

The existing EU inbound investment control regime should be treated as relevant *acquis* that should enjoy priority in implementation in the WB. This would help to identify (and divert) state-driven acquisitions that could ultimately increase WB dependence and vulnerability.

Within the WB bloc, this implies that EU and WB countries must develop regional guidance on screening mechanisms that respond to FDI in line with the EU investment control regime.

2.5 Approximation of laws

Another comparative imbalance between the WB and eastern European countries are their variable commitments on the approximation of laws. While the EU generally makes the adoption of the *acquis* an ex-ante precondition for access to the internal market, there are significant differences in how this obligation is put in place substantively and in governance structure.

Approximation of laws forms an essential element of the SAAs, which provide for seamless access to the internal market for goods originating from WB countries based on a sufficient alignment of national rules with the Union *acquis*.

Specifically, the WB SAAs “*recognize the importance of the approximation to that of the Community*” (Article 72 Serbia-SAA) and they provide for a governance structure that aims at promoting the approximation process.

What is missing beyond this general obligation is a more detailed enumeration of specific legal texts to be adopted and by when. Likewise, CEFTA provides a governance structure on “*harmonization of technical regulations and standards*” in the field of TBTs (Article 13 of CEFTA) but remains silent on substantive obligations and concrete legal texts.

This contrasts with the extensive approach on the approximation of laws under the DCFTA agreements, which specify the approximation of laws for individual policy areas (rather than one single encompassing global obligation).

In the DCFTAs, the agreements are much more explicit, with the listing of hundreds of directives and regulations that the Eastern partnership countries are required to implement.

Take public procurement as a specific example. The Georgia DCFTA provides for a gradual approximation of public procurement legislation in Georgia with the Union public procurement acquis based on the specific EU procurement law (Article 141 Georgia DCFTA), and it requires further approximation with the Union's public procurement acquis (Article 146 Georgia DCFTA).

In essence, while the WB SAAs rely on a procedural framework to pursue approximation of law (through cooperation), the DCFTA agreements, in addition to a procedural framework, specify substantively the specific approximation obligation.

Evaluation of the Georgian experience shows that the gradual approximation to EU norms in public procurement improved the already reformed system (Akhvlediani *et al* 2022).

The higher degree of specificity in terms of the obligation to approximate the laws is also a result of a continuous practice of amending the SAAs. The Ukraine SAA has been modified and extended by new or revised Annexes to the SAA around ten times since 2018, while the Serbia AA has been amended in the same time period only once.

One reason for this difference could lie in the more compelling approximation ambition in the EaP SAAs. For example, the Ukraine SAA contains special approximation provisions for the areas of sanitary and phytosanitary and animal welfare legislation, as well as for telecommunications – these specific approximation obligations have been used to amend and further develop the Ukraine SAA. In turn, the Serbia SAA is limited to a general approximation provision but largely lacks more specific obligations.

3 Comparative assessment of governance deficiencies

While integration into the internal market is primarily an issue of substantive requirements on market access, governance is essential in implementing effectively the commitments under the agreements.

The governance structure common to SAAs typically involves an SAA Council as political body, with high-level representatives of both the EU and the country in question, tasked to supervise and evaluate the integration process. A Stabilisation and Association Committee composed of high-level civil servants supports and prepares the work of the SAA Council. Sub-committees involving civil servants meet at technical level throughout the year to discuss and monitor progress on specific subject areas covered by the SAA.

There is also a joint SA Parliamentary Committee, involving members of the national parliament and of the European Parliament, from across the political spectrum. These joint institutional structures manage the process by jointly overseeing the implementation of the SAA.

3.1 Political dialogue and civil society

With the WB as a region characterised by multiple historical and contemporaneous internal political tensions (Domi, 2023), the political dialogue as a reconciliatory and inclusive element for integration of the WB into the EU single market is key when it comes to effective implementation of the agreements.

The EaP countries and the WB have established structures of political dialogue that serve to address political and technical issues impeding implementation and deepening cooperation. Dialogue can take place at different political and technical levels between the EU and the region (Annex 1).

Building on the general governance institutions mentioned above, a number of additional formats subsequent to the initial governance under the SAAs have been initiated. Intra-regional governance is put in place through the Regional Common Council (RCC) Secretariat under the Regional Common Market initiative, in cooperation with the CEFTA Secretariat.

The different institutions perform different functions, either inter-regionally to foster convergence with the EU, or intra-regionally between WB countries.

A core difference and shortcoming of the WB structures, compared to the relationship between the EU and the EaP countries, is the absence of civil-society involvement in the framework of implementing the agreements.

Civil society plays an important role in various ways: civil society is a carrier of expertise feeding into implementation of commitments; civil society is key in identifying and eliminating barriers to trade; it collects relevant information to provide to the bodies engaging in trade facilitation or rules approximation.

Civil society also has an important and disciplining surveillance function over governmental decision-making. Also, civil society is one of the groups affected by democratic backsliding in some of the WB countries, undermining the ability of civil society to monitor government action.

The sufficient integration of civil society into the governance structure of the SAA (and the EU Growth Plan) can thus be likened to the Copenhagen Criteria for EU accession, for which involvement of civil society without political and administrative pressures is indispensable.

In that respect, the Ukraine DCFTA establishes a comprehensive structure for political dialogue involving civil society. The EU and the DCFTA countries are obliged *“to involve civil society in the implementation of the agreement”*, to encourage mutual exchanges of experiences and multiple other forms of connecting civil society among each other, as well as with decision-makers (Articles 443, 444, SAA Ukraine). It even creates policy-specific civil-society exchanges, such as for trade and sustainability issues (Article 299, SAA Ukraine).

By contrast, the relevant agreements involving the WB are silent on the role of civil society. The WB SAAs do not assign a task to civil society, nor has CEFTA integrated civil society into the implementation process, nor does the Working Programme of the Common Regional Market²⁷ identify civil society as a relevant contributor to the implementation process.

In addition and likewise, the EU does not seem to attach much value either to civil-society involvement. Its draft Growth Plan foresees a role for civil society only at the evaluation stage, and only as one of many stakeholders (Article 25 of draft Growth and Resilience Facility).

The limited role of civil society in implementing the WB SAA is insufficient and forgoes benefits, both from the perspective of relevant expertise as well as a source of legitimacy and acceptance.

Again, Georgia can be referred to as a positive example in this respect. The Georgia SAA established a Civil Society Platform, which enables civil-society organisations from both sides to monitor the implementation process and prepare their recommendations to the relevant authorities.

Specifically, the Georgian National Platform of the Eastern Partnership Civil Society Forum was established in 2015 as a consultative body under the Association Agreement. It brings together up to 200 organisations, among them civil-society organisations, employee organisations, trade unions and associations.

Not only does this platform perform a bottom-up process of providing insight, but it also assures the monitoring of the AA/DCFTA's implementation by producing recommendations to the Association Council and the relevant authorities of both parties (Akhvlediani *et al* 2022).

3.2 The DCFTA Trio format as role model?

There is no shortage of political bodies created under the agreements and involved in the process. Association Agreements, CEFTA, the Common Regional Market Initiative – bodies abound, yet they remain deficient. CEFTA's governance structure lacks the enforcement capacity that other trade agreements with similar scope of ambition have.

CEFTA is designed in intergovernmental fashion, it has not created institutions endowed with competences to make legislative proposals, nor does it exercise adequate supervision over the implementation of the agreement.

While the CEFTA Secretariat is largely limited to providing technical and administrative support to the CEFTA Joint Committee and Bodies, the latter are plagued by the need to decide by consensus and are riddled by political controversies over the representation of Kosovo (RCSPI, 2023).

To some extent, the Common Regional Market initiative sought to create the missing element. The RCC Secretariat created under this framework (including countries such as Turkey and Greece) coordinates and monitors the Action Plan in close cooperation and consultation with CEFTA Secretariat.

While dialogue, reconciliation and cooperation characterise the work of the RCC, its success is limited because of the participation of countries beyond the WB, including the geopolitical rival Turkey, which limits the possibility for this governance framework to focus on the specific concerns of the WB countries in relation to the EU.

Drawing from the experience of the EaP countries, there is a need for a political framework dedicated to the joint WB endeavour for EU accession. The ‘new frontrunners’ – Ukraine, Georgia and Moldova – motivated but disappointed about the slow accession process, created an Associated Trio format in 2021 to push harder to “enhance their political association and economic integration with the EU”, in line with their European aspirations²⁸.

The Trio format was complementary to the multiple other formats and bodies established under the Eastern Partnership, but it was complementary in a productive way by offering an agenda for the dialogues between the ‘Association Trio’ and the European Commission, in addition to the DCFTA-related issues, one that deepened cooperation in areas including transport, energy and green economy, even if the Trio has its own shortcomings and the war in Ukraine has hampered the effectiveness of this institution.

Taking the Trio format of the DGFCAs as role model, it is worth exploring an equivalent body as a complementary element to the multiple existing formats and bodies of the Western Balkans. While WB states maintain their individual agreements with the EU, there is no sufficiently visible format that focuses on the joint WB concerns in pursuing EU accession.

Just as the Trio format of DGFCAs established ad-hoc trilateral consultations to discuss specific issues in the framework of their integration with the EU, a similar institutionalisation could promote the concerns of the WB beyond the SAAs and the Growth Plan framework.

Such a framework could establish 'Trio' coordinators within the Ministries of Foreign Affairs, and coordinate meetings at expert, senior official and, when appropriate, ministerial levels.

The Open Balkan Initiative (OBI) could be a first step in this direction. Intended to intensify the economic integration between three WB countries (Albania, North Macedonia and Serbia), this initiative could grow further to become a representative body that represents WB interests in relation to the EU.

The initial motivation for the OBI arose from fatigue with the sluggish EU integration process, but it could become a productive forum by accelerating intra-regional economic integration, political cooperation in the areas of infrastructure and transport, and the fight against organised crime and terrorism (Semenov, 2022).

There is the potential that the EU finds a counterpart able to speak with one voice for WB countries. Yet, in its current setup, the OBI is not able to compensate for one of the core deficiencies of the cooperation frameworks under CEFTA and the Common Regional Market, which is the absence of an independent institution tasked with overseeing and implementing agreements, and which ensures consistent implementation across countries and alignment with the EU acquis (RCSPI, 2023).

4 Conclusions

The importance of EU single market membership to WB economic prospects cannot be overstated. This analysis sought to highlight differences between WB SAAs and DCFTAs and lessons to learn from the DCFTA process. It showed that the DCFTAs apply a more lenient approach to intra-regional cooperation.

Also, the DCFTAs subject non-tariff barriers to a more explicit regime than WB SAAs; rules governing trade in services incorporate a stronger non-discrimination standard; and the DCFTAs offer a more rigid and comprehensive

approach to the approximation of laws than the WB countries. It is the latter point in particular that underscores the different integration models underpinning the WB SAAs and the DCFTAs.

The WB SAAs were initially concluded with the prospect of addressing the adoption of the *acquis* during the subsequent accession negotiations (which then turned out to be delayed), rendering SAAs in some aspects less ambitious.

In turn, conclusion of the DCFTAs with the EaP countries was seen as a substitute for EU accession, which explains the (in parts) greater degree of trade liberalisation in the EaP countries than in the WB, and the more assertive stance of these agreements in particular on approximation issues.

There is no indication that the differences in legal governance have translated into a stronger economic performance in the EaP countries compared to the WB. From a comparative perspective, the analysis suggests that dubbing Ukraine and other EaP countries as the 'new frontrunners' appears premature if not misleading. Rather, they can be dubbed 'quickstarters', reflecting their rapid pace in moving from application status to candidate status and accession negotiations.

The WB remains significantly more integrated in trade with the EU than the EaP countries, while convergence with the EU has been stagnating both for the WB and the EaP. While not underperforming compared to the EaP countries, economic deficiencies in the WB nevertheless exist and should be addressed.

Conditionality attached to both internal market and EU funding should be nuanced; above all, in relation to economic intra-regional integration, it should not impede the necessary investments. The eradication of non-tariff barriers should enjoy priority both inter-regionally with the EU and intra-regionally between WB countries.

The EU's levers for promoting investment in the region should be further enhanced, a demand that is further reinforced by geopolitical concerns about Chinese investments coming without EU-type conditionality attached, and thus creating a tempting alternative for WB countries that have been increasingly disappointed with the slow progress in EU accession.

The question is whether and how the identified shortcomings in the agreements should be addressed. One avenue is to seek amendments of the SAAs and adjust according to the shortcomings identified in this analysis, which implies bargaining with the EU on amending the SAAs on a country-by-country basis. Such a formal amendment approach is likely to undermine the negotiation stage of EU accession (into which five out of six WB states have entered).

Amending the SAAs with a view to aligning them with the DCFTAs would in the WB region be perceived as a (disappointing) substitute for EU accession. An alternative would be to seek an agreement that is complementary to the existing ones, concluded between WB countries (negotiating in unity) on the one side and the EU on the other side.

This approach would be in line with the above exploration of a joint body as a counterparty to the EU. However, the existing and persistent intra-regional political tensions make a sufficiently homogenous stance, as a precondition for crafting a joint agreement, an unlikely prospect.

A third and more pragmatic solution would be to use the existing framework to the greatest extent possible. For example, regulation of trade in services gives leeway to the SAA Council to *"take the measures necessary to progressively"* liberalise the supply of services (Article 59 Serbia SAA). In addition, the SAA Council has sufficiently

wide procedural leeway to widen the scope of interaction with civil society and to create space for civil society in the implementation of the SAAs (Article 120 Serbia SAA).

In turn, the EU is more flexible in unilaterally adjusting its policies on the WB. It could nuance the conditionality embedded in its draft Growth Plan and the draft Growth Facility, and it can extend its tools to foster investment in the regional infrastructure, and thus contribute to stronger convergence by the region. ■

Armin Steinbach is a Non-Resident Fellow at Bruegel and Jean Monnet Professor for EU law and economics at HEC Paris

Endnotes

1. Lisa O'Carroll, *'As Ukraine and others queue to join, is EU ready for enlargement?'* The Guardian, 31 August 2023.
2. Services data is missing for Kosovo.
3. Based primarily on European Commission (2023c) and the latest relevant Reports and Conclusions from the European Commission and Council, *available for each country*; other sources referenced as appropriate.
4. For more details, see *'Treaty on European Union — Joining the EU'*.
5. Despite Council agreement to begin negotiations with Albania and North Macedonia in March 2020, the process only began for each country in July 2022.
6. See European Commission news article of 8 December 2023, *'Screening meetings completed as part of screening process with Albania and North Macedonia'*.
7. Meaning that it "should be offered official candidate status when it is ready"; see https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/steps-towards-joining_en.
8. See footnote 6.
9. See point 16 in European Commission (2023c).
10. See point 15 in European Commission (2023c).
11. Based on media reports; see for instance Alexandra Brzozowski, *'EU Commission to start screening process for Ukraine, Moldova after 'surprise' delay'*, Euractiv, 17 January 2024.
12. See point 14 in European Commission (2023c).
13. See *'Stabilisation and Association Agreement with Serbia'*.
14. See *Association Agreement between the EU and Ukraine*.
15. See Majlinda Bregu, Secretary General of the Regional Cooperation Council, *speaking at the 10th Belgrade Security Forum*, 22 October 2020.
16. See *'The Western Balkans Common Regional Market – a catalyst for deeper regional economic integration and a stepping stone towards EU Single Market'*.

17. See <https://www.berlinprocess.de/>.
18. Which also includes factors such as the efficiency of the clearing process and the ability to track and trace consignments. For more details see <https://lpi.worldbank.org/>.
19. Bulgaria, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.
20. As well as political tensions and institutional factors, for example.
21. See European Commission news article of 13 December 2023, 'European Commission announces additional €680 million investment package for the Western Balkans under the Economic and Investment Plan'.
22. Christian Danielsson, Director-General for Neighbourhood and Enlargement Negotiations, speaking on 3 March 2020. See *Strategeast*, 'EU welcomes Ukraine's progress in implementing the Association Agreement and the Deep and Comprehensive Free Trade Area', 4 March 2020.
23. See EU Projects in Serbia, 'The Trans-Balkan electricity corridor'.
24. See Council of the EU, 'The EU: main investor, donor and trade partner for the Western Balkans'.
25. FDI data is problematic, given the opacity of the ultimate investor behind the FDI in question. To address these concerns, in Annex 3 we build on the work of Damgaard et al (2019), who used firm-level data to estimate the "ultimate investor economy" in FDI data.
26. See 'Foreign direct investments, by country, 2010-2022 (BPM6)'.
27. Available from: https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/policy-highlights/common-regional-market_en.
28. See Ministry of Foreign Affairs of Ukraine, 'Association Trio: Memorandum of Understanding between the Ministry of Foreign Affairs of Ukraine, Ministry of Foreign Affairs of Georgia and the Ministry of Foreign Affairs and European Integration of the Republic of Moldova', 17 May 2021.
29. Source and notes are consistent for each figure in this section.
30. Eurostat does not provide services data for Kosovo.

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Annex 1. Legal comparison Annex 2. Trade data

Country (Date of entry into force)	Association Agreement/Deep and Comprehensive Free Trade Area Agreements	Associate Agreement Serbia (2013)	Observed differences between DCFTA and SAA
<p>Regional Cooperation Requirements (ie. necessity to integrate primarily regionally)</p>	<p>Ukraine (Association Agreement since 2014, DCFTA since 2016)</p> <p>Chapter 27 - promote regional understanding; support and strengthen involvement of local and regional-level authorities in crossborder and regional cooperation; strive to develop crossborder and regional elements in various areas; regular dialogue on this matter.</p>	<p>Title III, Art 14: "Serbia shall actively promote regional cooperation. The Community assistance programmes may support projects having a regional or crossborder dimension through its technical assistance programmes.... implement fully the CEFTA";</p> <p>Art 15: "Serbia shall start negotiations with the countries which have already signed an SAA with a view to concluding bilateral conventions on regional cooperation", main elements: political dialogue, free trade areas, various economic freedoms and cooperation in areas such as justice, freedom and security. "Readiness by Serbia to conclude such conventions will be a condition for the further development of the relations between Serbia and the EU";</p> <p>Art 16: Pursue regional cooperation with the other States concerned by the SA process;</p>	<p>The language seems stronger for SAAs-matches what Windisch said in his intervention "no access to the single market on any of the 7 pillars will be granted before there is integration on the common regional market."</p>

		<p>Art 17: "Foster its cooperation and conclude a convention on regional cooperation with any country candidate for EU accession in any of the fields of cooperation covered by this Agreement... should aim to gradually align bilateral relations... with the relevant part of the relations between the Community... and that country".</p> <p>Should also start negotiations with Turkey on establishing a free trade area.</p>	
<p>Political dialogue structure (institutional exchange, high level, lower level etc.)</p>	<p>Arts 460-468: Highest level is Summit level, to take place in principle once a year; political and policy dialogue at ministerial to take place at least once a year within the newly established Association Council; Parliamentary Association Committee established.</p> <p>Article 5: As well as the above, there will be regular dialogue at Foreign Minister, Political Directors, Political and Security Committee and expert levels.</p>	<p>Title II, Art 10-13: Political dialogue to be further developed between the parties to support the rapprochement between the EU and Serbia and increase convergence on international issues and security and stability; in addition to the institutions described below dialogue can occur directly between officials representing the Council Presidency or HRVP and those representing Serbia</p> <p>Art 119-125: Stabilisation and Association Council, made up of members of the European Council and Commission and the Government of Serbia, is established and shall meet at regular intervals and when required; the Council is to be supported by an SA Committee; Stabilisation and Association Parliamentary Committee established, consisting of members of the European Parliament and the Parliament of Serbia, to allow them to meet and exchange views.</p>	<p>Slight differences: DCFTAs seem to mandate ministerial meetings, whereas SAAs talk about senior officials.</p>

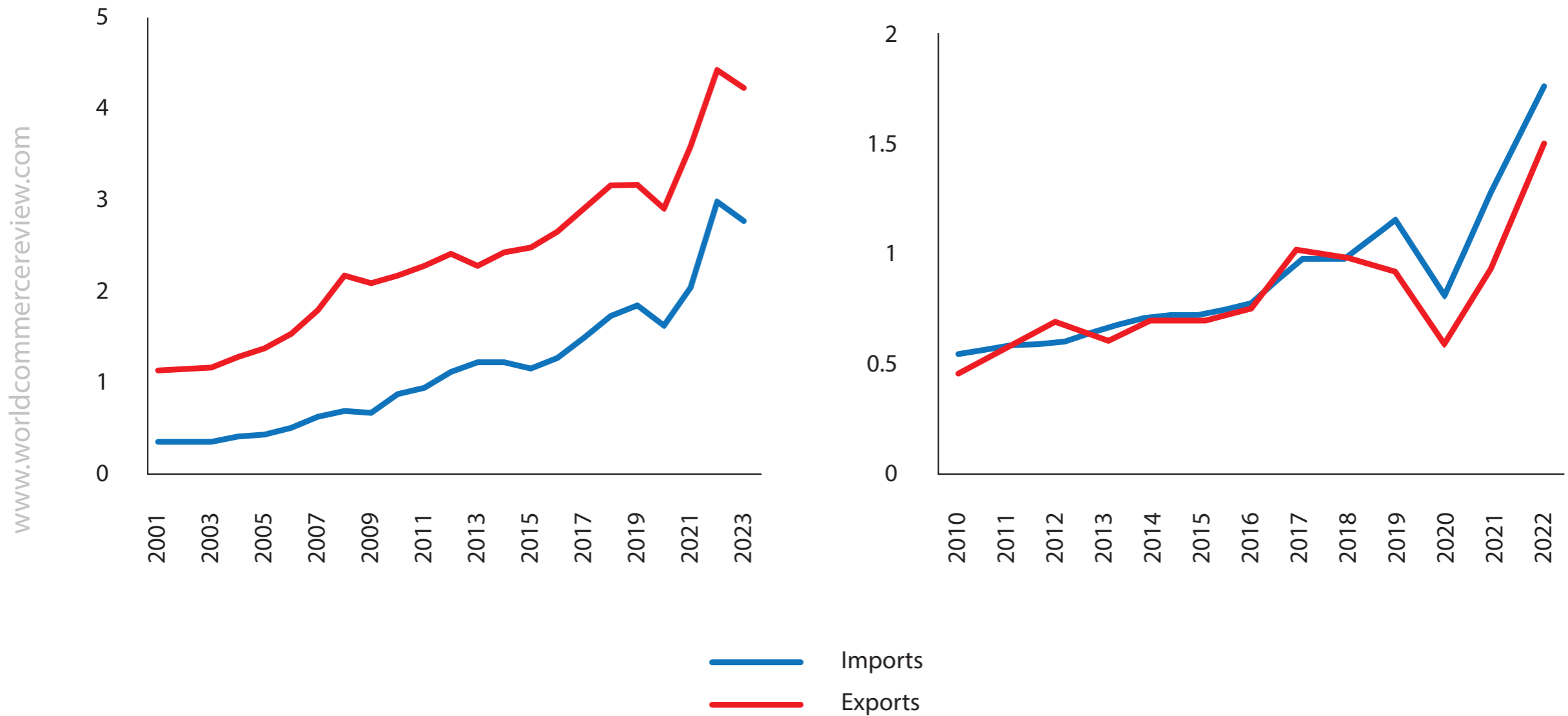
<p>Political dialogue: involvement of civil society</p>	<p>Arts 443 and 444: Promoting dialogue and cooperation between civil society groups in both regions. Arts 469 and 470: Parties will promote regular meetings as representatives of their civil societies; Civil Society Platform established to allow for an exchange of views and to meet with and make recommendations to the Association Council.</p>	<p>No</p>	<p>More of a reference to civil society in the DCFTAs.</p>
<p>Freedom/liberalization of trade in goods</p>	<p>Art 29: Sets out schedule for reduction/elimination of custom duties.</p>	<p>Title IV, Art 18: "shall gradually establish a bilateral free trade area over a period lasting a maximum of six years"; controversial legal interpretation, see Sretic (2023), pg 6-7.</p>	<p>Not significant.</p>
<p>Trade in services</p>	<p>Art 94: In the sectors where market access commitments are inscribed in Annexes... each Party shall grant to services and service suppliers of the other Party... treatment no less favourable than that it accords to its own like service and services suppliers.</p>	<p>Art 59: Liberalisation process-parties undertake to take the necessary steps to allow progressively the supply of services by firms/nationals of the other party, with a review after four years; temporary movement of key personnel allowed to support this; Art 60: "The Parties shall not take any measures or actions which render the conditions for the supply of services by Community and Serbia nationals or companies which are established in a Party other than that of the person for whom the services are intended significantly more restrictive as compared to the situation existing on the day preceding the day of entry into force of this Agreement."</p>	<p>Different form of no discrimination (time vs nationality).</p>

		Art 61: Provisions on transport services specifically.	
Freedom of workers	Art 97-102: Limited freedom of movement for certain classes of workers.	Art 49: Non-discrimination rules. Art 50: Bilateral agreements on access to employment for Serbians should be preserved, improved and possibly expanded to other member states. Art 51: Rules shall be laid down for the coordination of social security systems for Serbian workers, legally employed in the territory of a member state and vice versa.	Not significant.
Freedom of establishment	Art 88: Treatment no less favourable than that accorded to its own legal persons... or to any third-country legal person... whichever is the better;	Art 53: "no less favourable than that accorded to its own companies or to any third country company, whichever is the better."	Not significant.
Freedom of capital	Art 145: Shall "ensure the free movement of capital relating to direct investments made in accordance with the laws of the host country, to investments ... and to the liquidation or repatriation of such invested capitals and of any profit stemming therefro". Portfolio investments, financial loans, credits related to commercial transactions also covered. "Ukraine undertakes to complete the liberalisation of transactions on the capital and financial account of balance	Art 63: "With regard to transactions on the capital and financial account of balance of payments, from the entry into force of this Agreement, the Parties shall ensure the free movement of capital relating to direct investments made in companies formed in accordance with the laws of the host country and investments made in accordance with the provisions of Chapter II of Title V, and the liquidation or repatriation of these investments and of any profit stemming there from."	Not significant.

	<p>of payments equivalent to the liberalisation in the EU Party prior to the granting of internal market treatment in the area of financial services... A positive assessment of the Ukrainian legislation on capital movements, its implementation and continued enforcement... is a necessary precondition of any decision by the Trade Committee to grant internal market treatment with respect to financial services." Discussions to take place 5 years after the entry into force to see what still needs to be done.</p>	<p>Free movement of capital relating to credits related to commercial transactions/provision of services, portfolio investment and financial loans and credits are also covered. Serbia should authorise and liberalise the purchase of its real estate by EU nationals so that they ultimately receive the same treatment as Serbians. After four years the SA Council will determine what remains to be done to apply full EU rules on freedom of capital.</p>	
<p>Provisions on non-tariff barriers</p>	<p>Art 34-35: Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretative notes... No Party shall adopt or maintain any prohibition or restriction or any measure having an equivalent effect on the import of any good of the other Party or on the export or sale for export of any good; Art 53-58: Reference cooperation and previous agreement on technical barriers to trade.</p>	<p>Title IV: No explicit mention in trade in goods (though legally controversial, Sretic 2023).</p>	<p>No explicit mention of non-tariff barriers in the SAAs, but the Sretic piece seems to argue they are implicit?</p>

Annex 2. Trade data

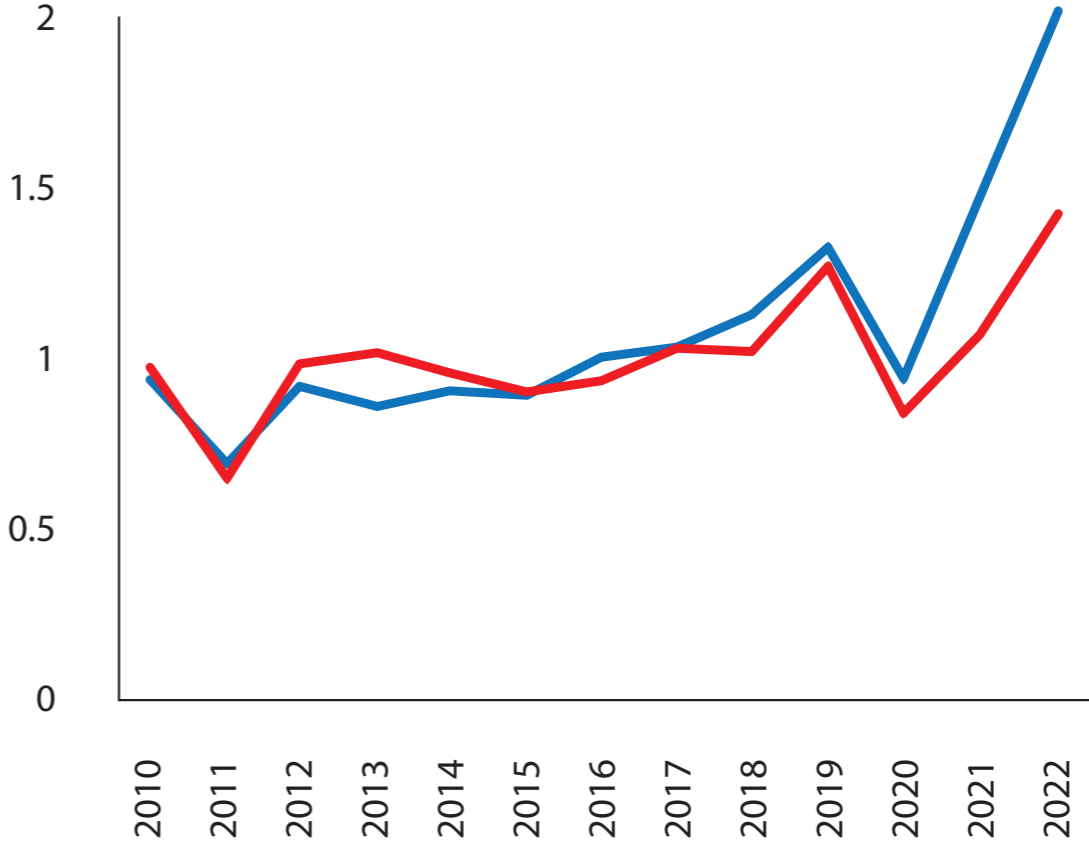
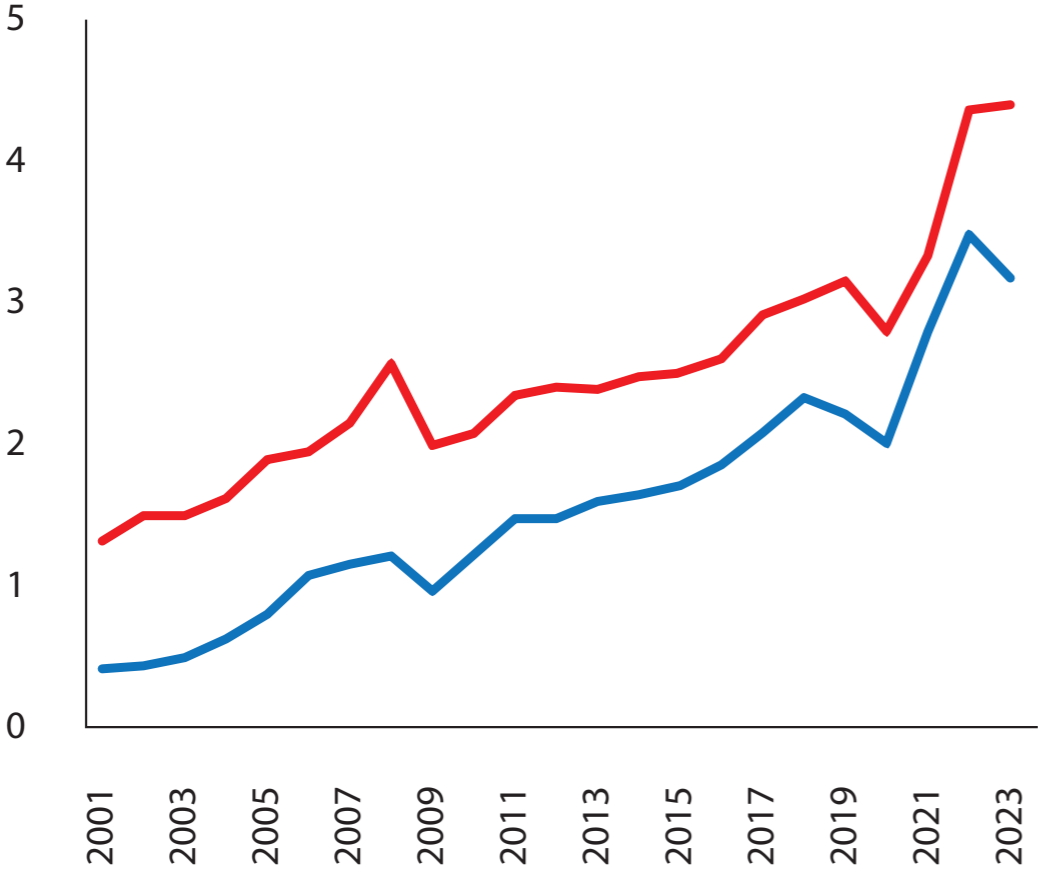
EU27 goods (left) and services (right) trade with Albania (€ billions)



Note: Exports refer to EU exports to Albania and imports the reverse²⁹.
Source: Bruegel based on Eurostat (DS-018995).

EU27 goods (left) and services (right) trade with Bosnia and Herzegovina (€ billions)

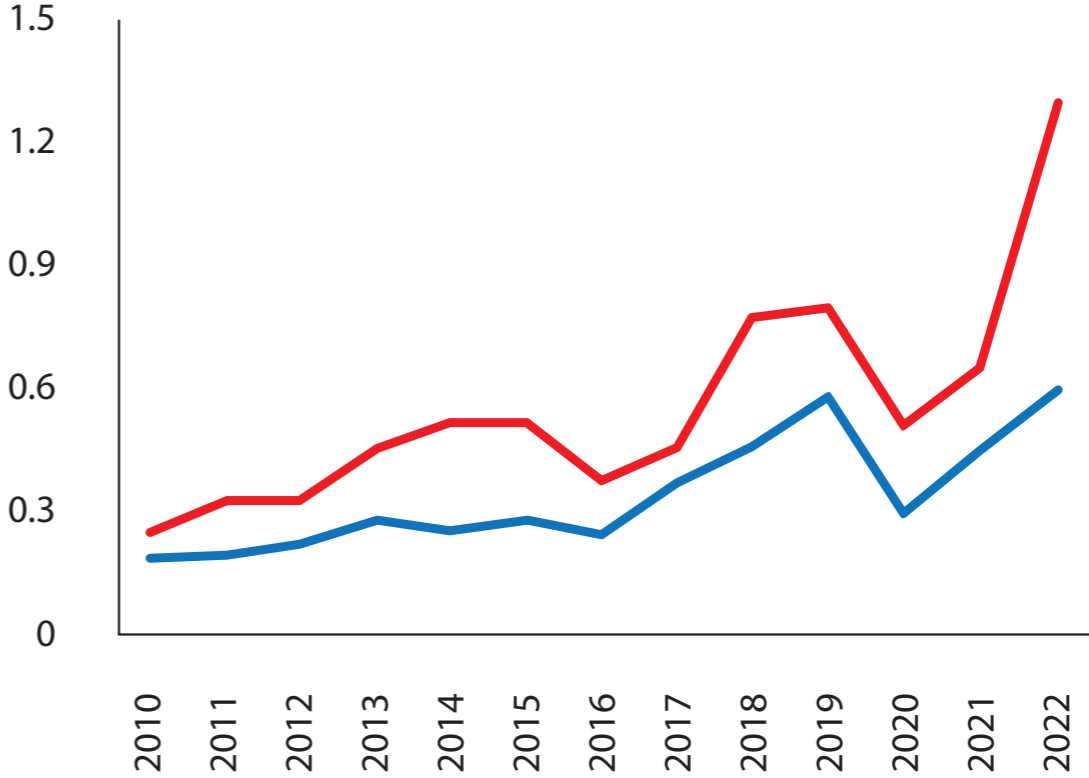
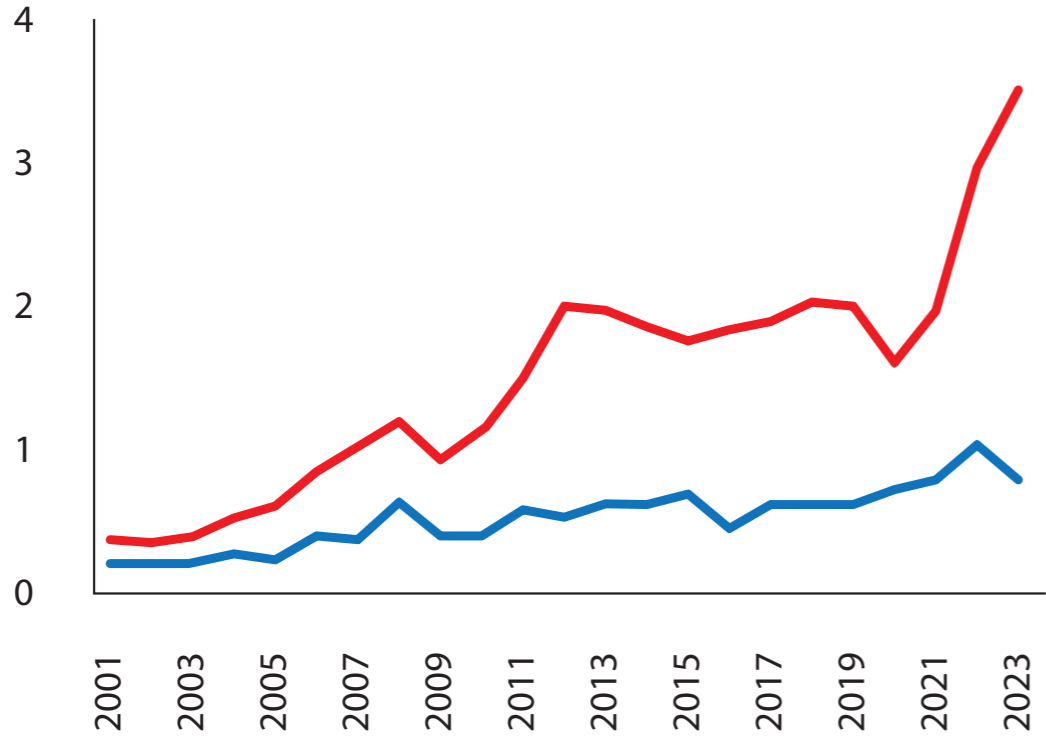
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— Imports
— Exports

EU27 goods (left) and services (right) trade with Georgia (€ billions)

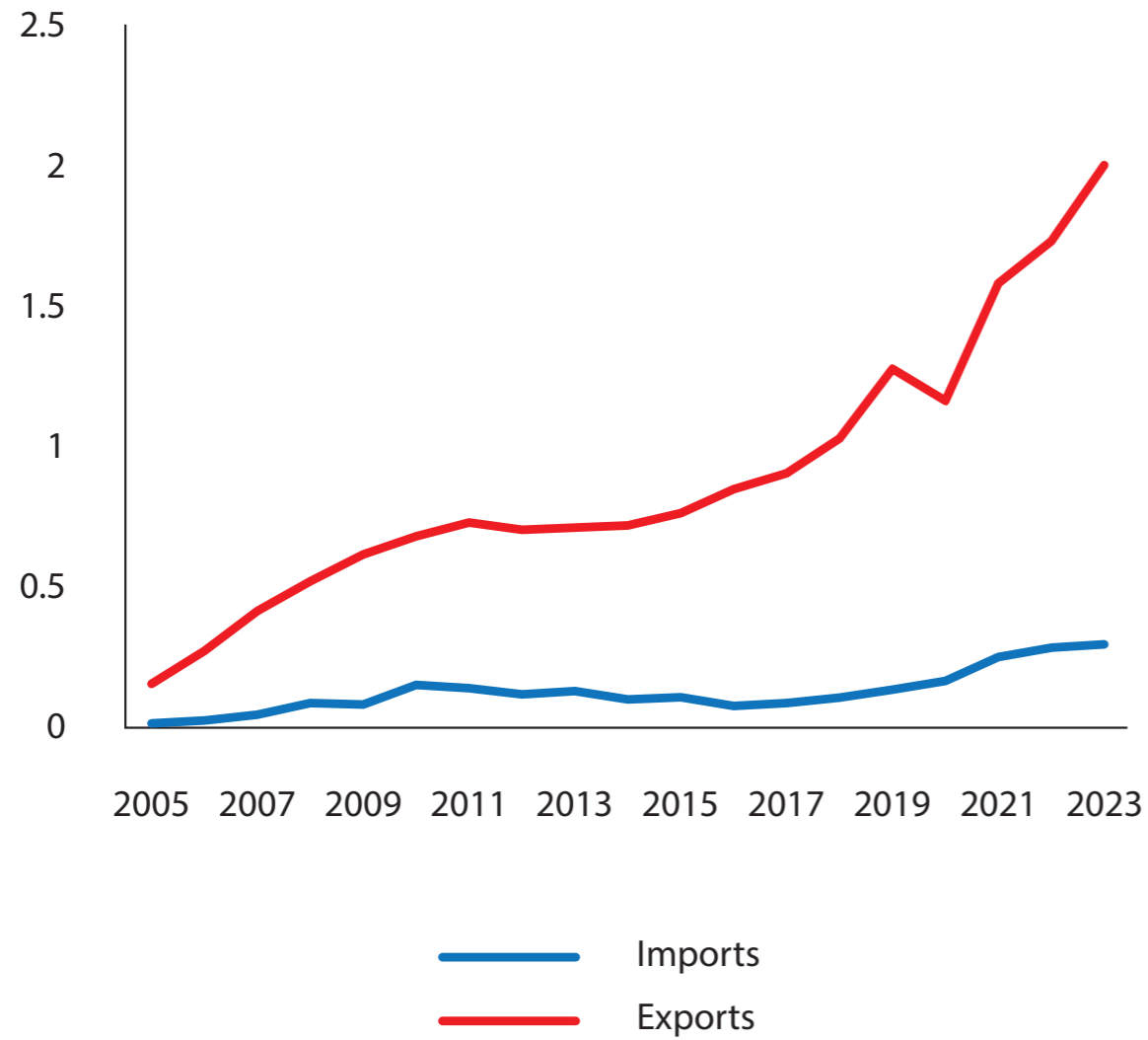
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— Imports
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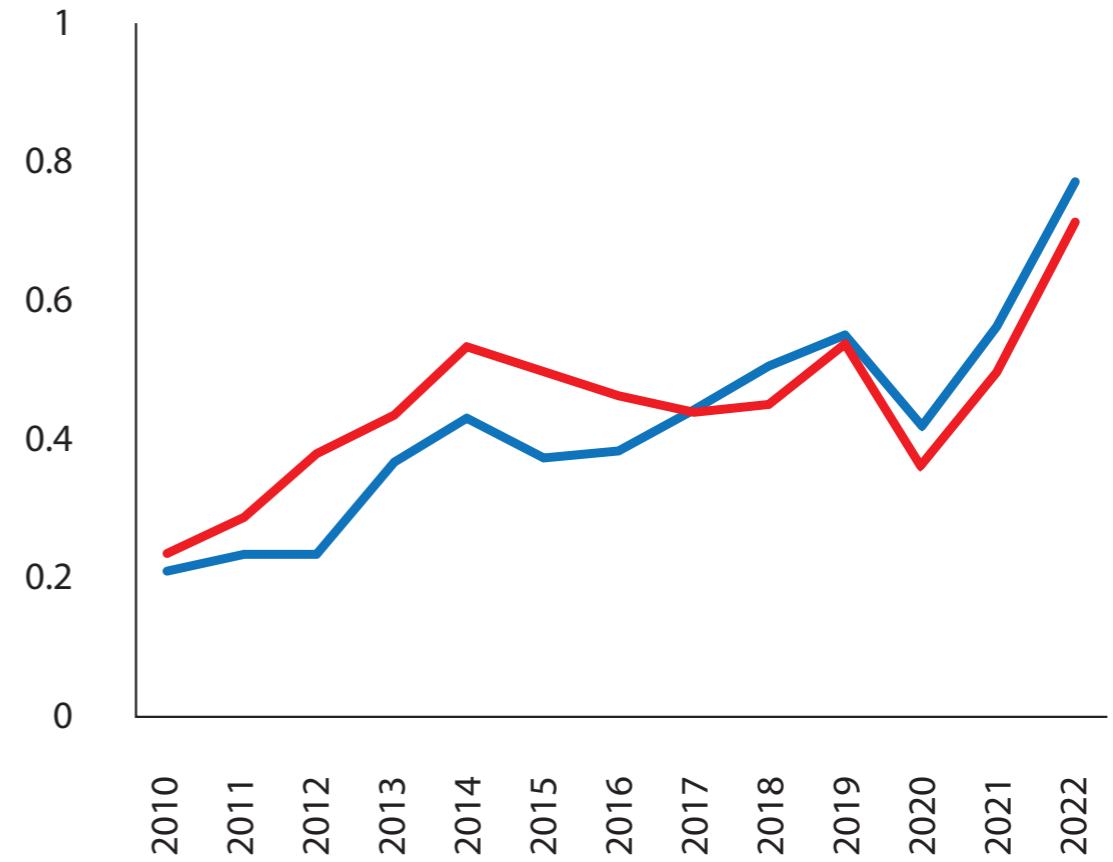
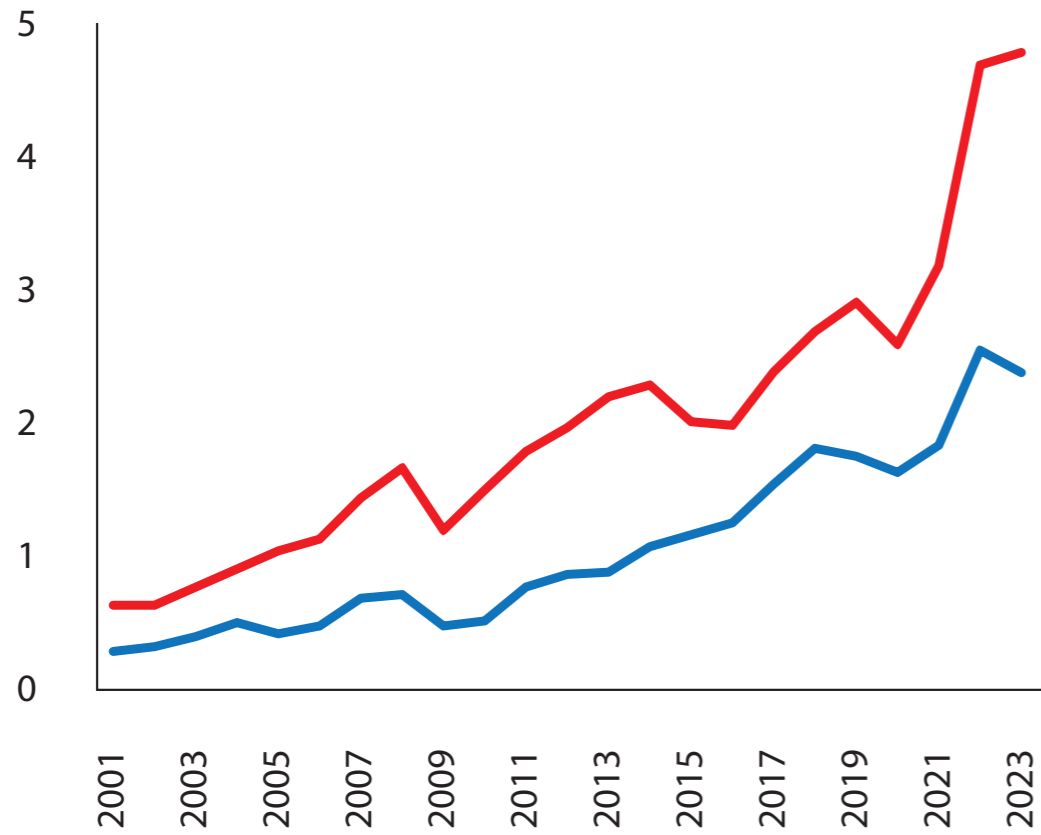
EU27 goods³⁰ trade with Kosovo (€ billions)

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EU27 goods (left) and services (right) trade with Moldova (€ billions)

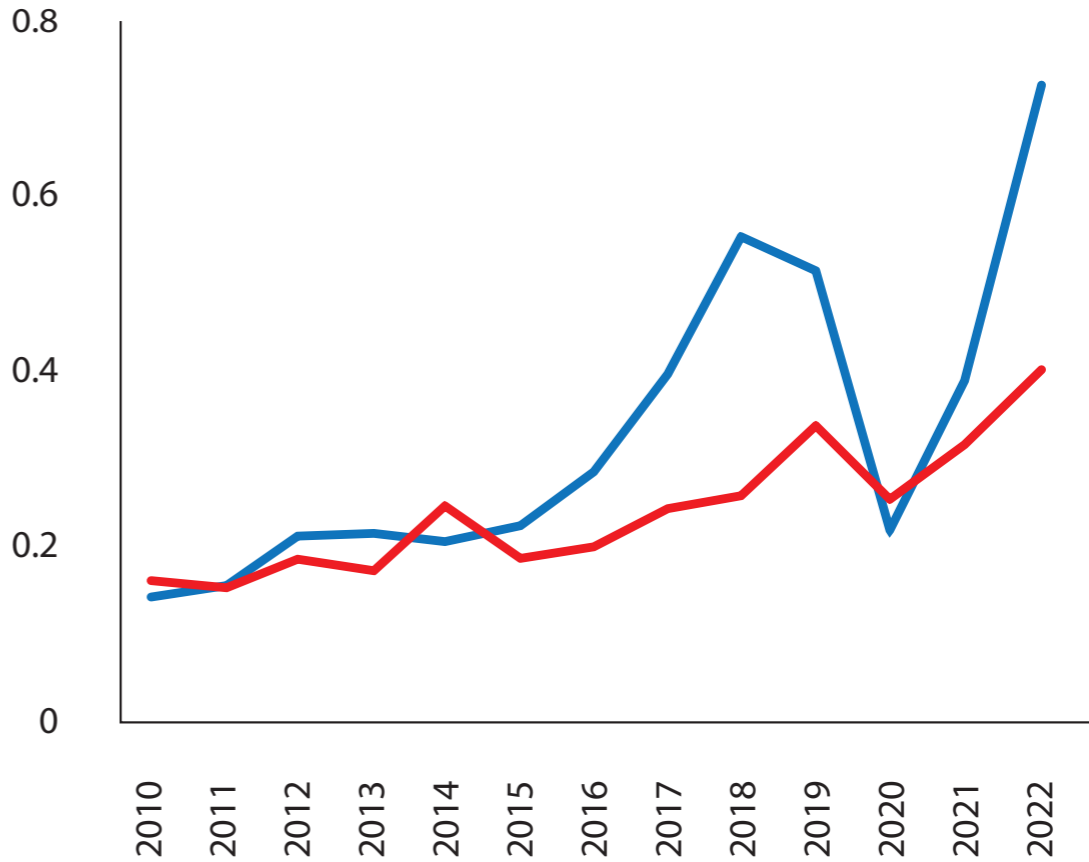
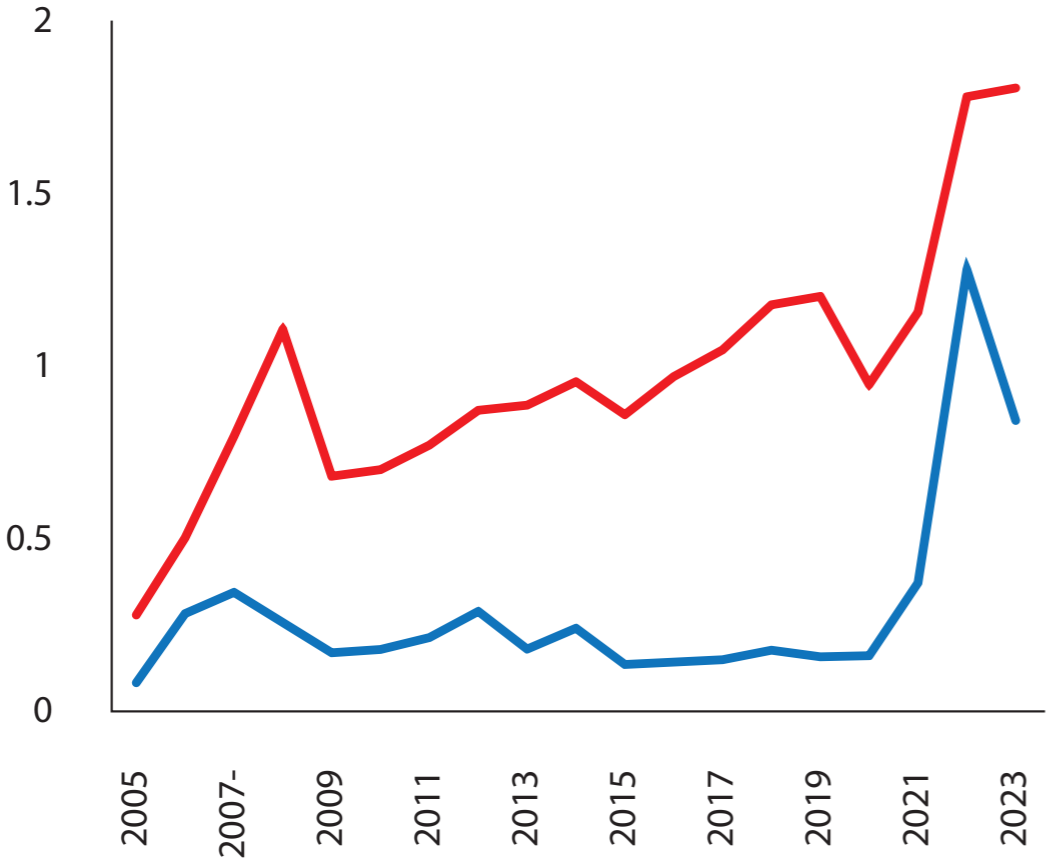
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— Imports
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EU27 goods (left) and services (right) trade with Montenegro (€ billions)

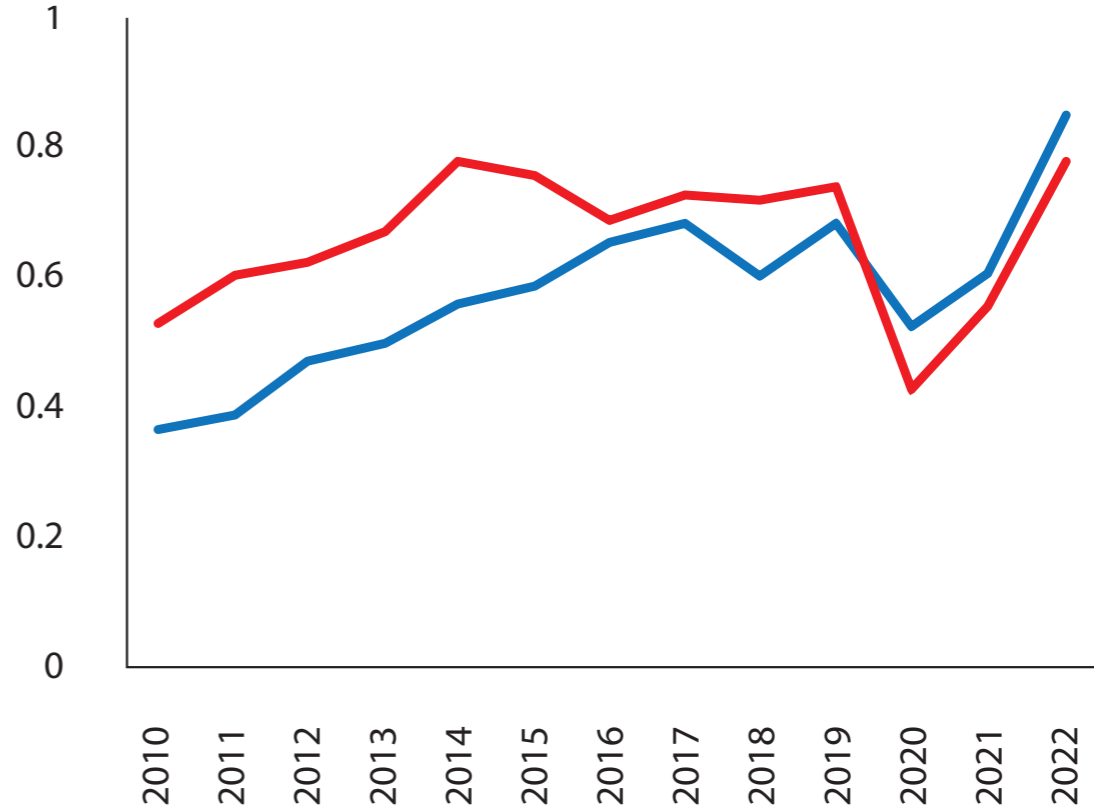
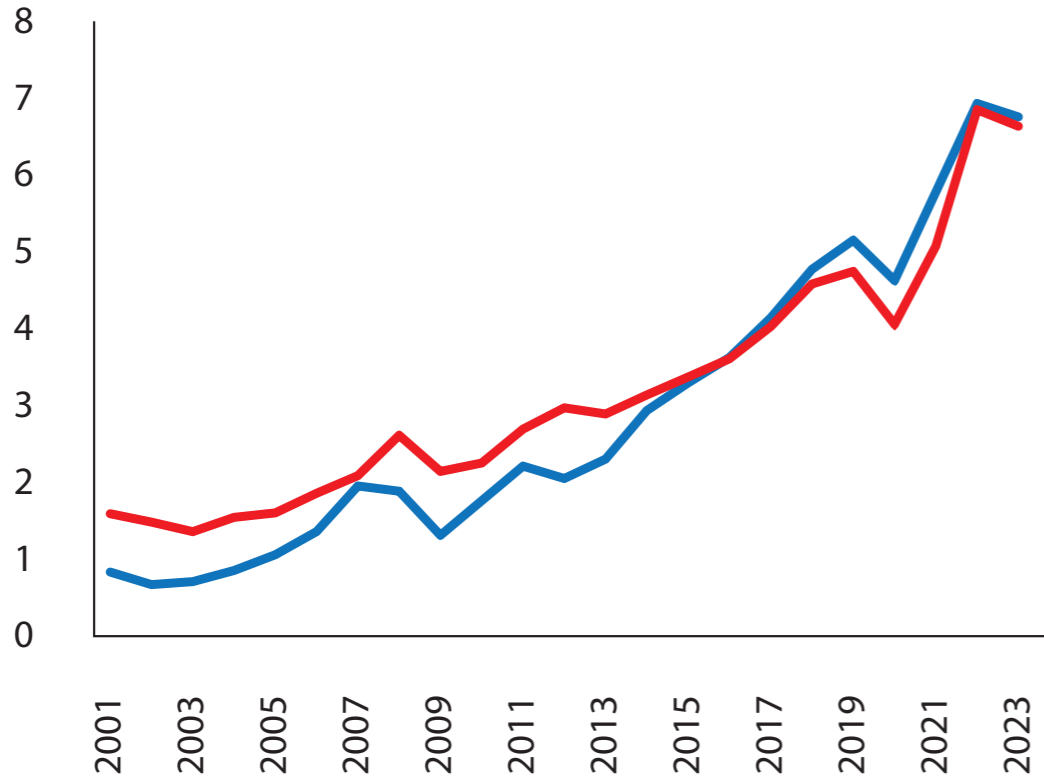
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— Imports
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EU27 goods (left) and services (right) trade with North Macedonia (€ billions)

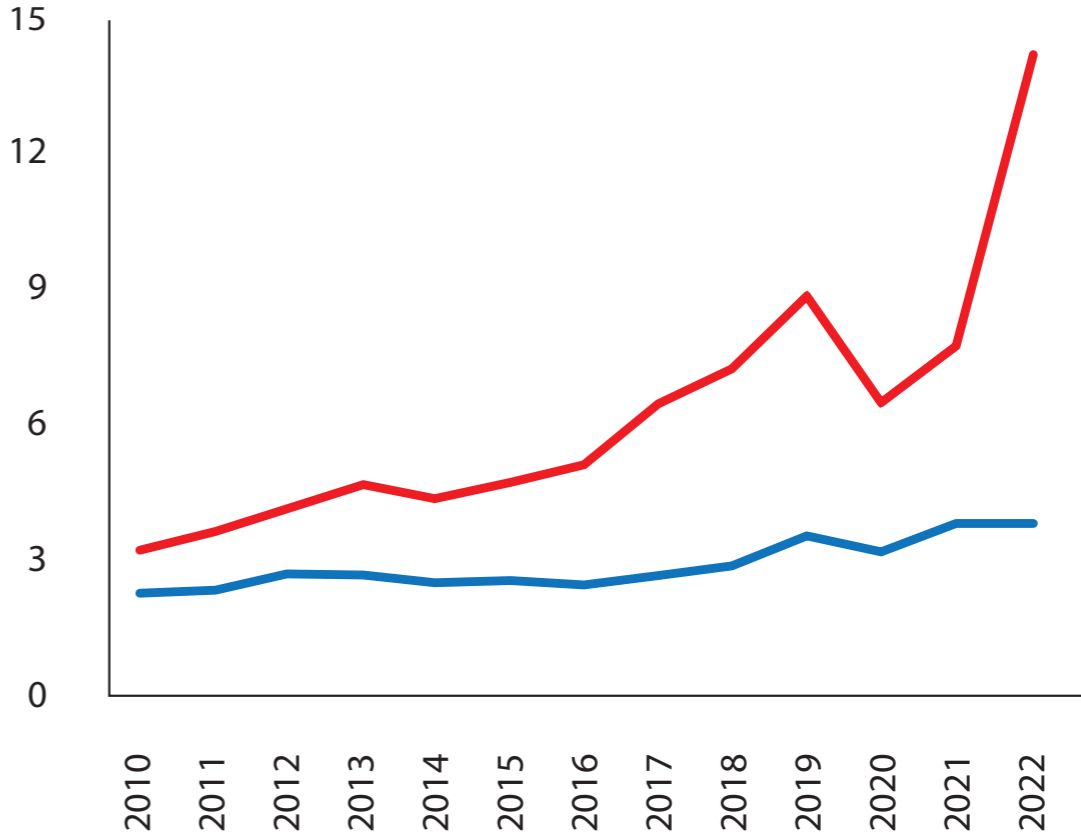
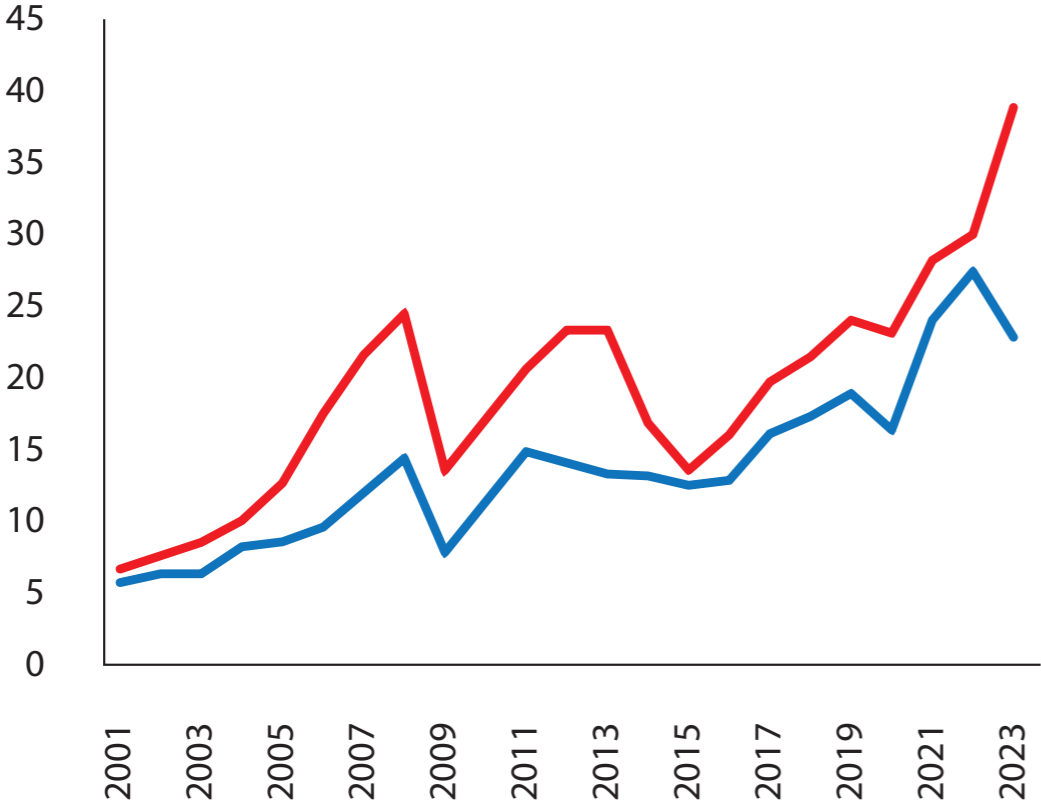
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— Imports
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EU27 goods (left) and services (right) trade with Ukraine (€ billions)

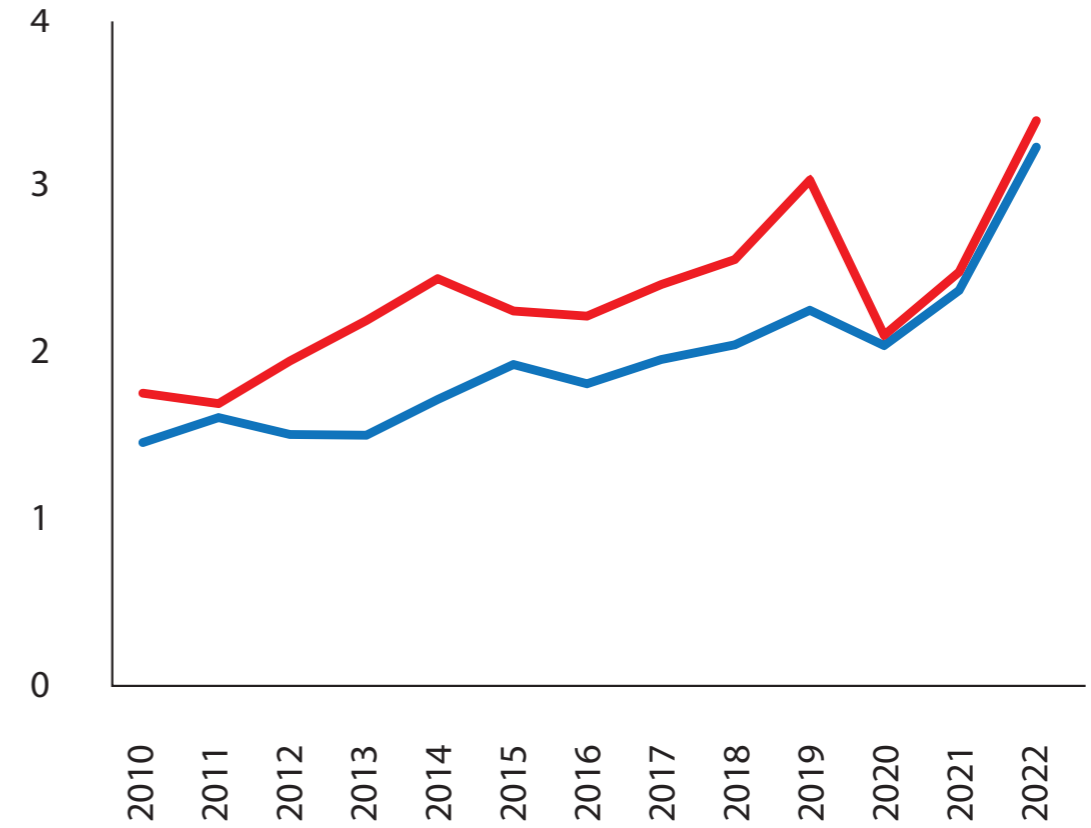
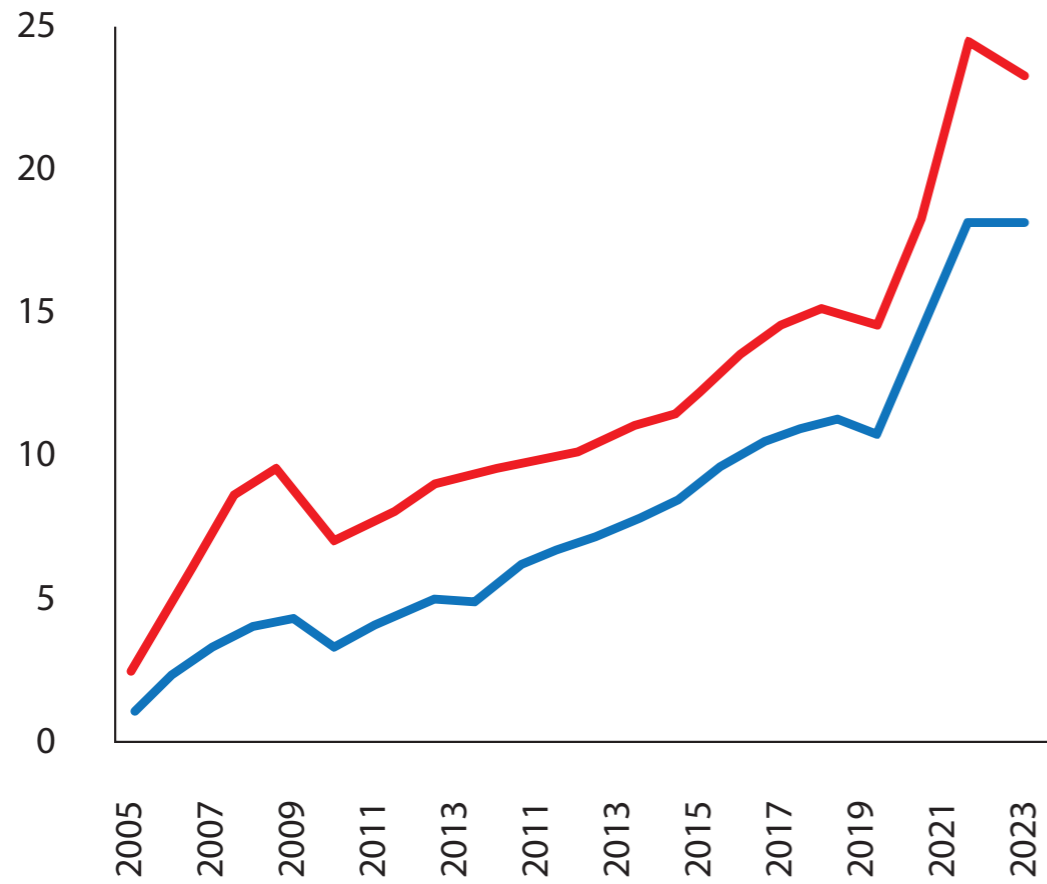
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— Imports
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EU27 goods (left) and services (right) trade with Serbia (€ billions)

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— Imports
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Annex 3. FDI data

Figure 3.1. EU FDI stock as a share of national GDP, Western Balkans

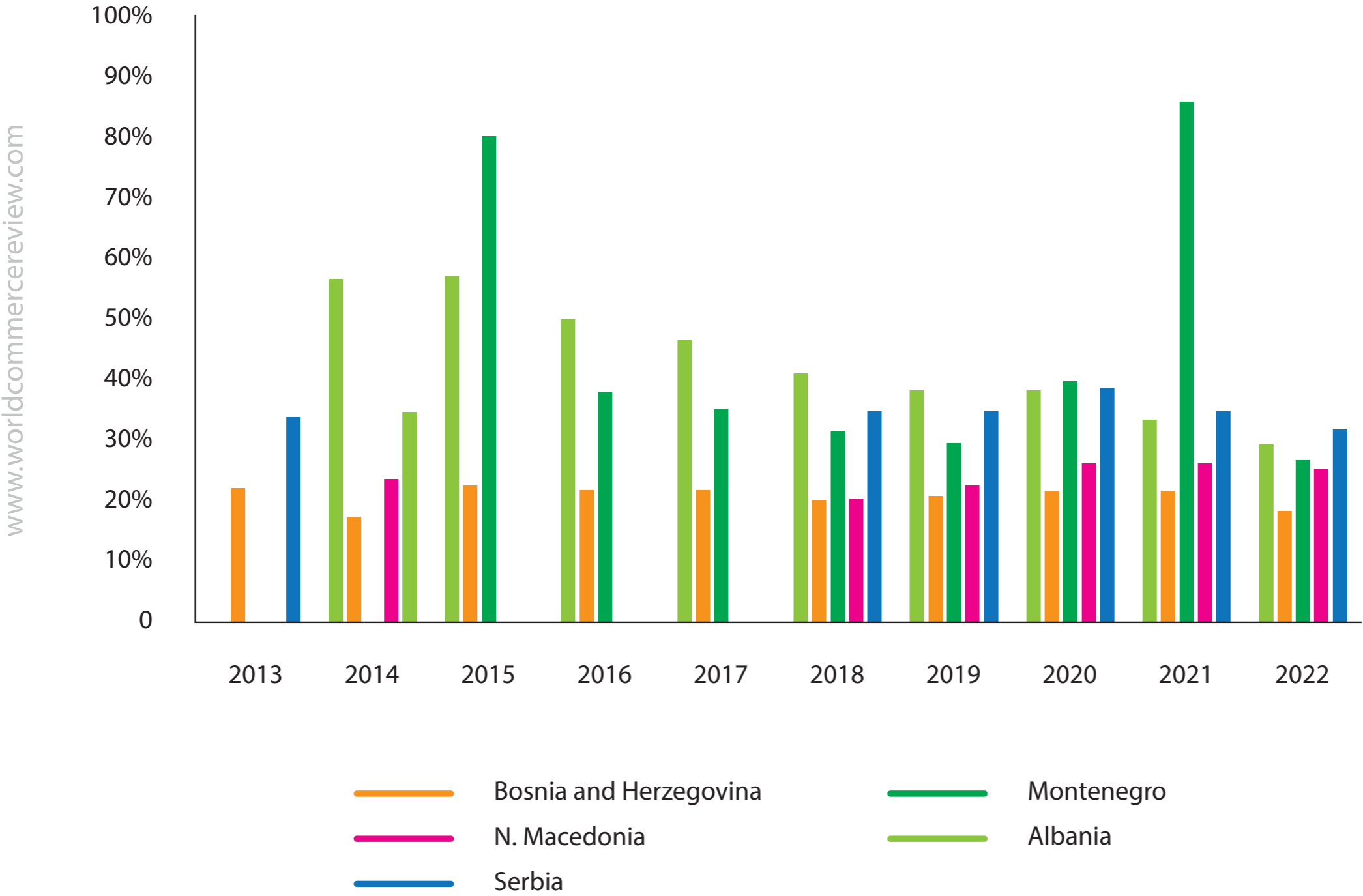
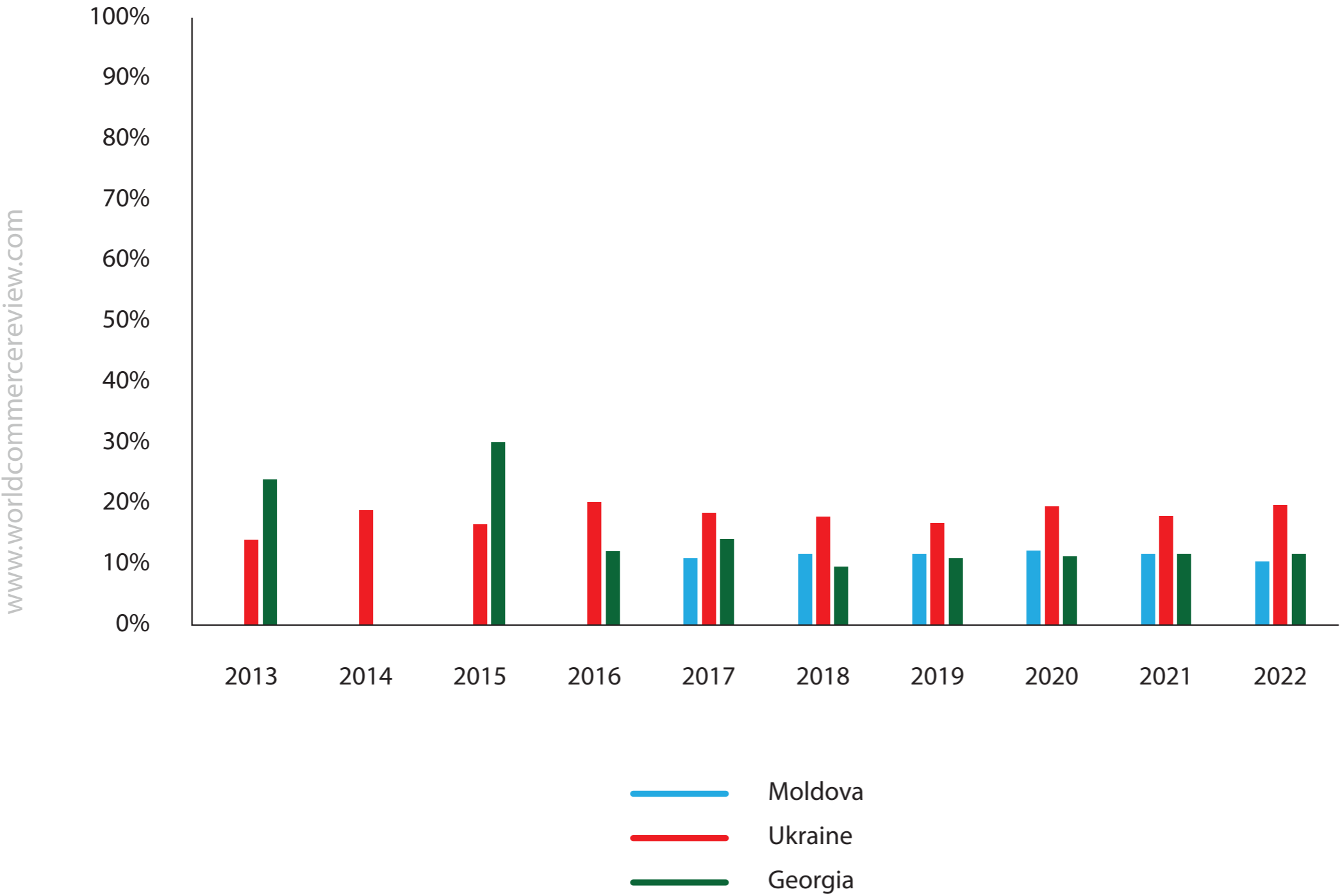


Figure 3.2. EU FDI stock as a share of national GDP, EaP



Source: Bruegel based on Eurostat, World Bank and OECD.

Reporting of FDI data must acknowledge that FDI statistics often mask the true origin of the investment in question, a phenomenon that is exacerbated in the case of the EU given the prominence of certain member states in global tax avoidance (Darvas *et al* 2023). Damgaard *et al* (2019) built a dataset for 2013-2017 that estimated FDI by what they term the “ultimate investor economy” (UIE). Over this period, the simple average for the WBs of FDI with the EU as UIE was 45 percent, higher than that of the EaP countries, but lower than the level of trade integration at the same time (the simple average for the EU as a share of total exports for the same period was 59 percent, Table 3.1). An average of 74 percent of the FDI reported as being from the EU across the WB countries actually had the EU as UIE, ranging from 90 percent in North Macedonia to just 50 percent in Montenegro (Table 3.2)

Table 3.1. Share of FDI with the EU as the ultimate investor economy in total reported FDI stock into the WB and EAP countries

Country	2013	2014	2015	2016	2017	2013-2017
<i>Western Balkans</i>						
Albania	43.7%	63.7%	65.0%	53.3%	45.4%	53.5%
B + H	49.7%	50.8%	54.0%	46.6%	47.3%	49.6%
Kosovo	19.0%	21.3%	20.8%	20.3%	20.7%	20.4%
Montenegro	30.6%	32.4%	21.3%	21.9%	21.9%	25.7%
North Macedonia	70.0%	73.0%	68.7%	60.0%	57.3%	65.6%
Serbia	58.8%	57.4%	51.2%	50.9%	45.0%	52.3%
<i>EaP</i>						
Georgia	14.9%	13.3%	10.9%	8.4%	7.5%	10.7%
Moldova	49.0%	48.3%	47.6%	50.6%	52.4%	49.6%
Ukraine	40.6%	34.8%	41.2%	35.1%	40.4%	38.7%

Source: Bruegel based on Damgaard *et al* (2019) and Darvas *et al* (2023).

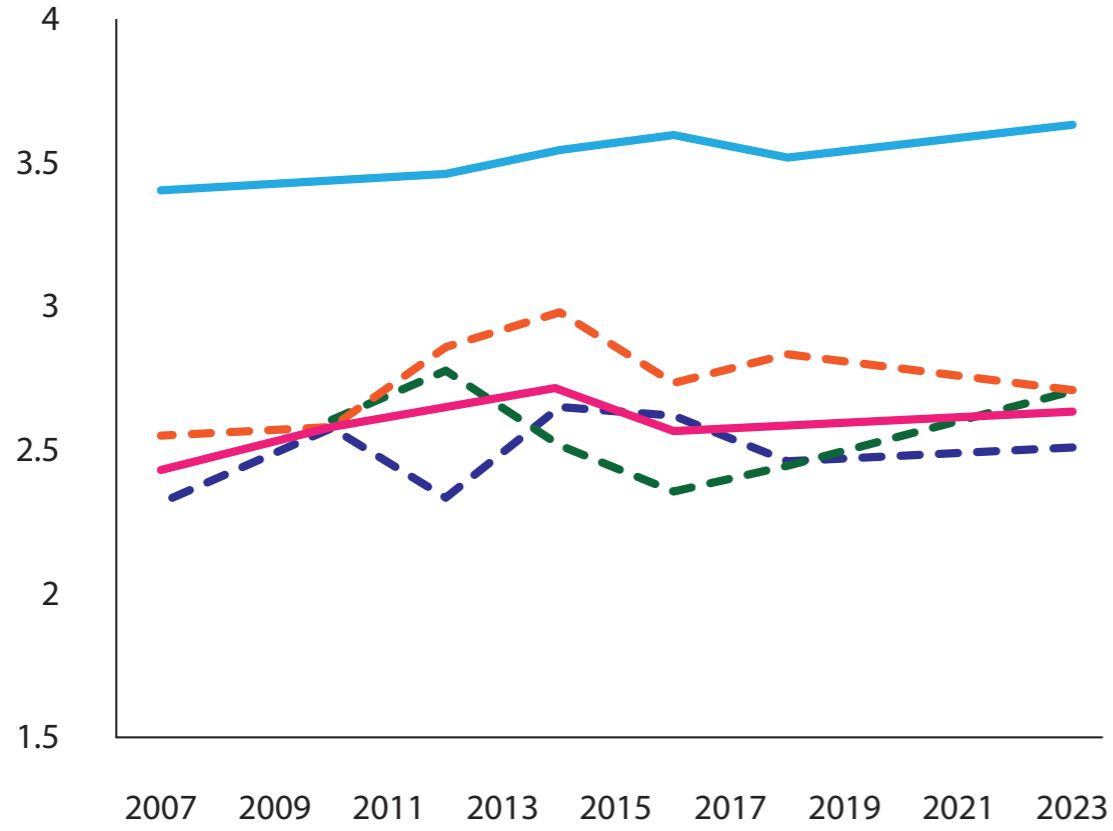
Table 3.2. FDI stock with the EU as the ultimate investor economy as a share of the reported EU FDI stock in each country

Country	2013	2014	2015	2016	2017	2013-2017
<i>Western Balkans</i>						
Albania	91.3%	91.9%	93.0%	90.1%	81.3%	88.9%
B + H	84.7%	88.3%	92.9%	77.5%	76.8%	83.8%
Kosovo	65.6%	69.8%	67.5%	69.9%	66.3%	67.7%
Montenegro	51.1%	54.5%	48.6%	52.0%	46.8%	50.8%
North Macedonia	85.9%	93.5%	90.8%	90.8%	88.1%	89.7%
Serbia	70.5%	70.4%	64.6%	64.8%	58.5%	65.6%
<i>EaP</i>						
Georgia	49.1%	41.6%	35.0%	27.8%	26.6%	35.2%
Moldova	82.0%	81.5%	81.5%	83.4%	82.3%	82.1%
Ukraine	55.2%	49.1%	58.4%	51.8%	60.8%	54.7%

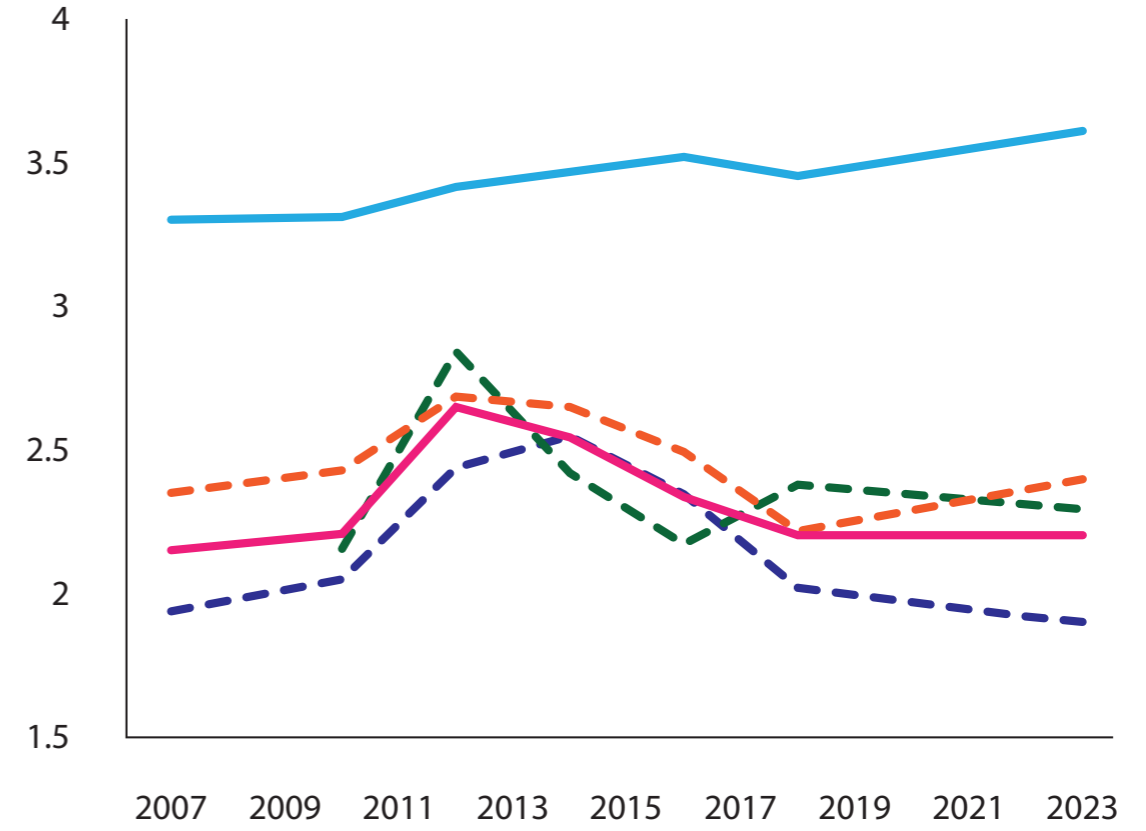
Source: Bruegel based on Damgaard et al (2019) and Darvas et al (2023).

Annex 4. Logistics and trade-related infrastructure for EaP

Logistics performance index



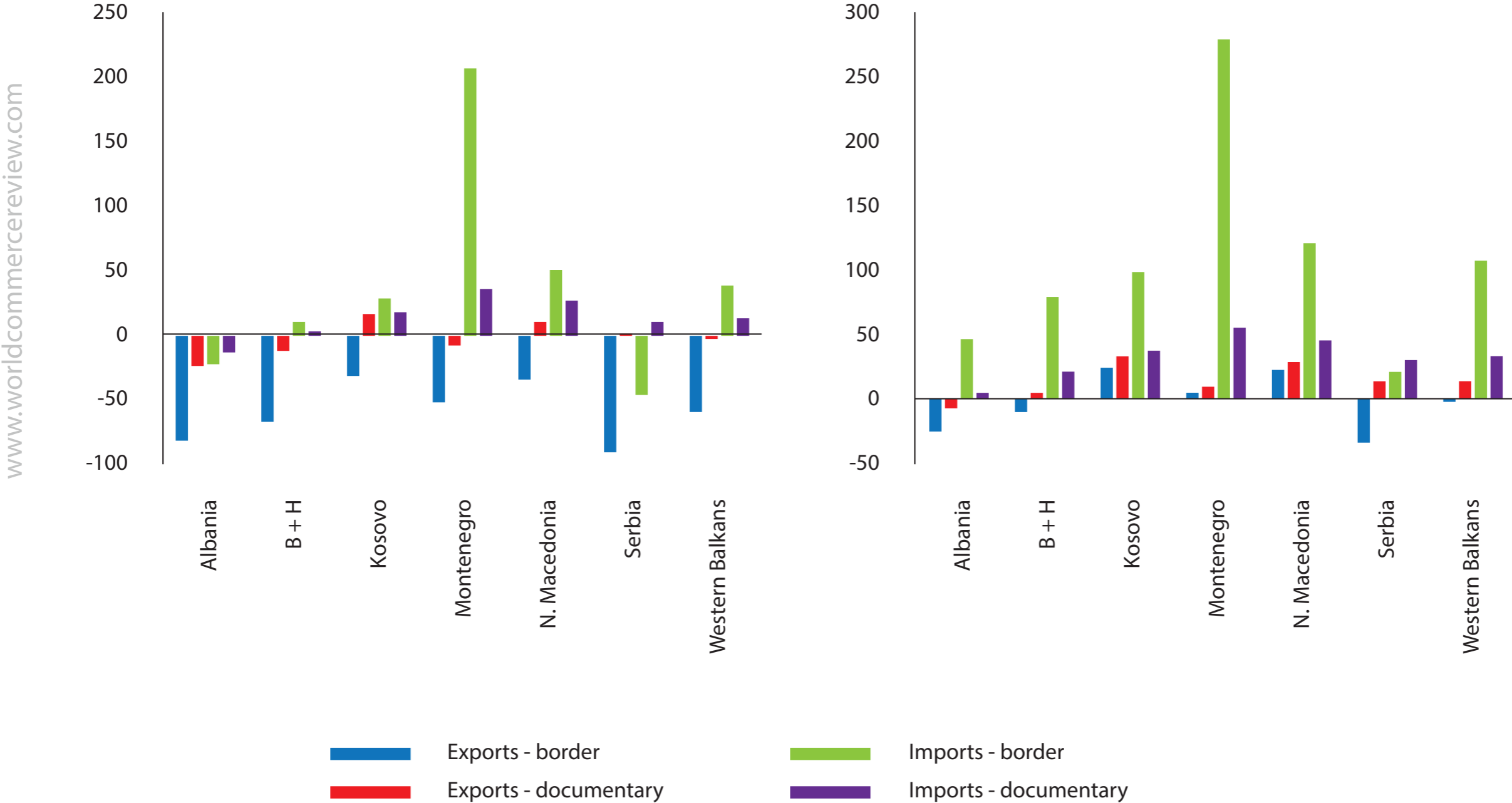
Quality of trade and transport related infrastructure



Source: Bruegel based on World Bank Logistical Performance Index.

Annex 5. Non-tariff barriers

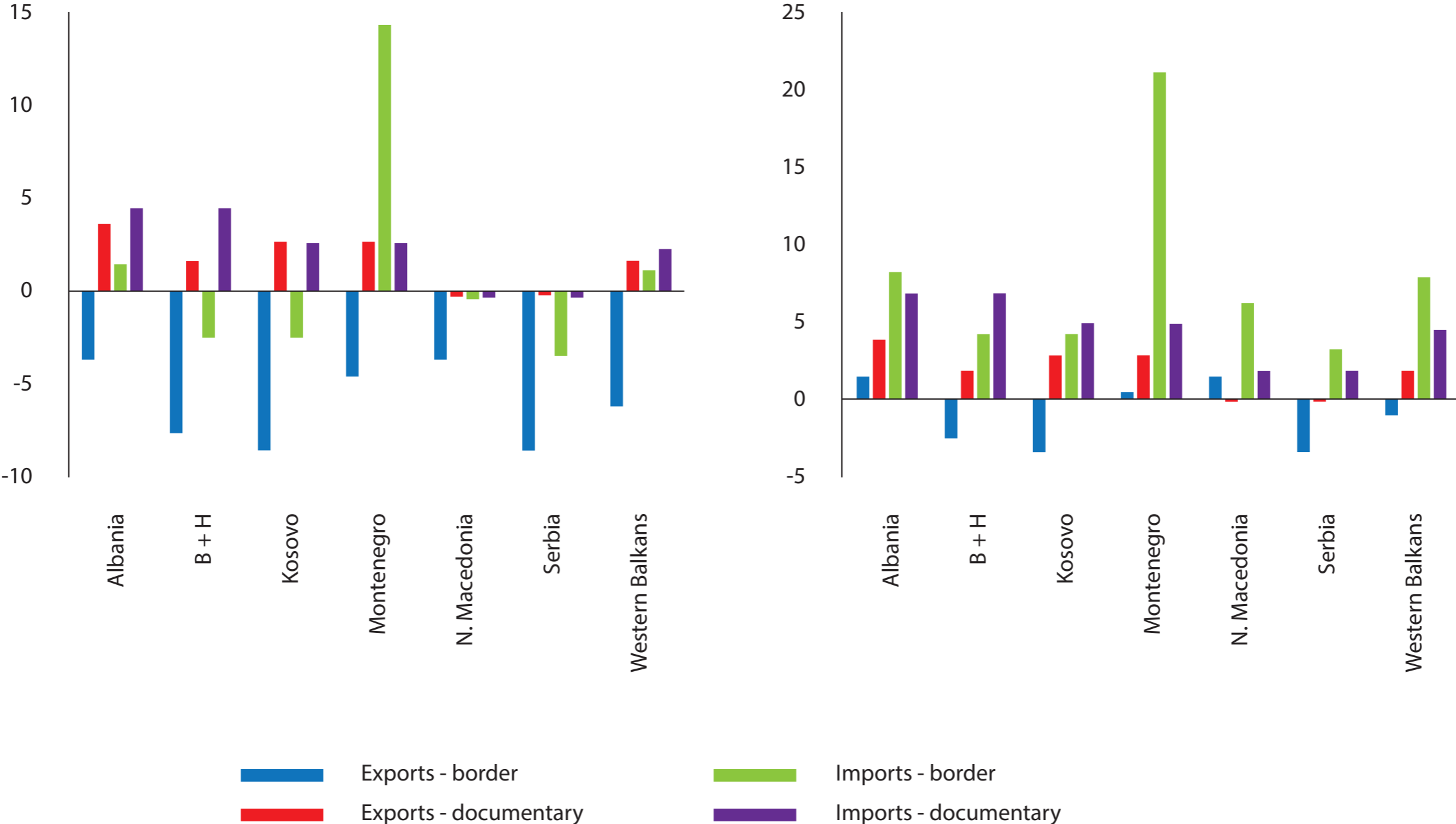
Figure 5.1. Difference in compliance costs of international trade between the Western Balkans and OECD high income countries (left) and the EU (right), \$



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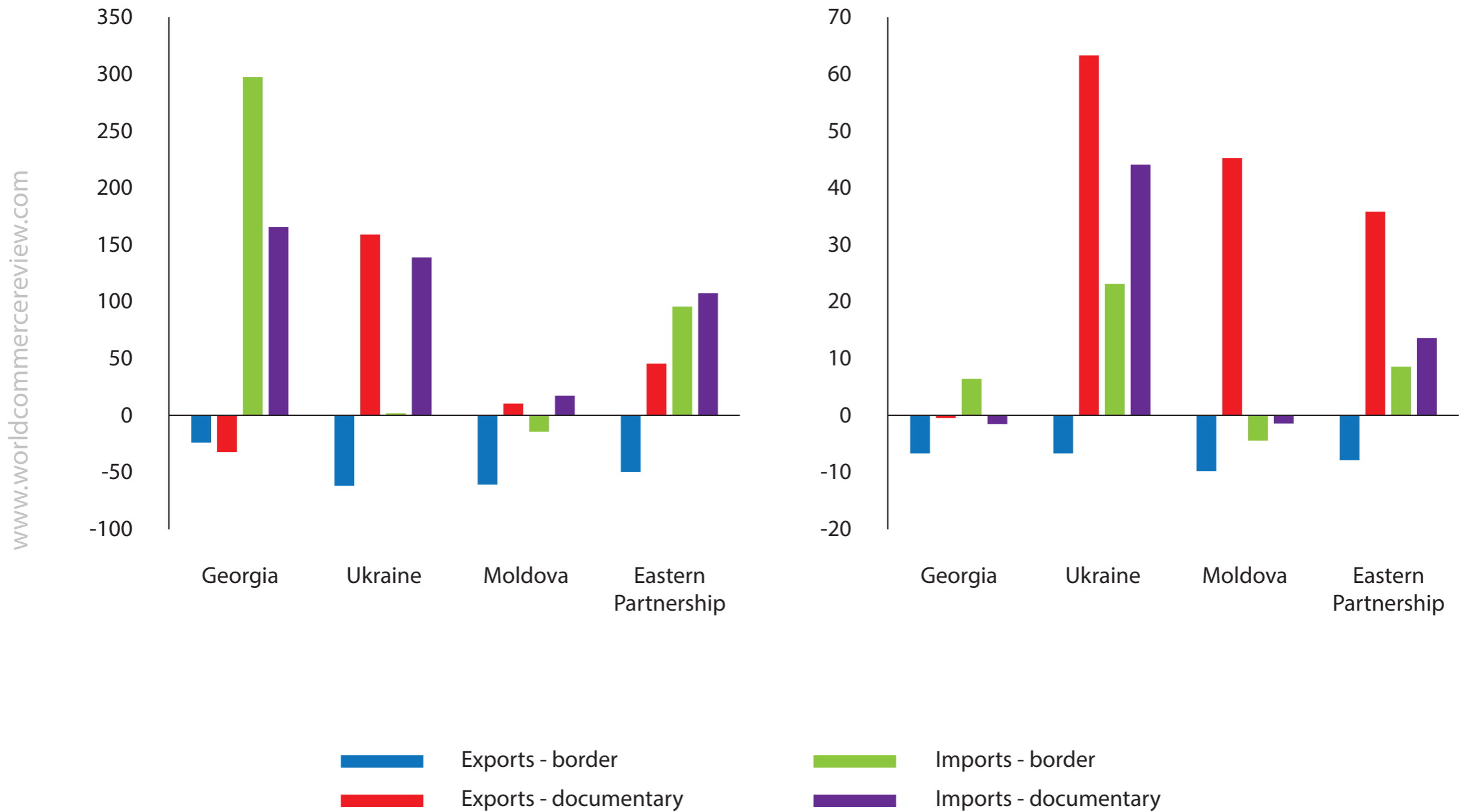
Figure 5.2. Difference in time compliance of international trade between the Western Balkans and OECD high-income countries (left) and the EU (right), hours

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Note: WBs refers to a simple average of the six WB countries. EU refers to the simple average of the EU27 countries.
 Source: The World Bank 'Trading across Borders'.

Figure 5.3. Difference in compliance costs of international trade between the EaP and OECD high-income countries in \$ (left) and hours (right)



Note: WBs refers to a simple average of the six WB countries. EU refers to the simple average of the EU27 countries.
 Source: The World Bank 'Trading across Borders.'

Bulgaria in the eurozone: when?



Bulgaria meets all the nominal convergence criteria, except the one of inflation. Dimitar Radev examines the benefits in joining the eurozone as quickly as possible

The short answer to this question is: as soon as possible. Why? Because delaying our full integration into the core of the EU, such as the eurozone, has its price, and it is constantly increasing. More generally, this cost is expressed in continued marginalization in the political and economic periphery of Europe with the inherent themes of this periphery such as poverty, corruption and external dependencies. These topics are shifting Bulgaria's real agenda, which should focus on its modernisation, outpacing economic growth and people's wellbeing.

More specifically, the price of delay is expressed in harder conditions for business, trade and investment; less favourable financing conditions; higher non-productive costs for businesses and households. The scale of losses is measured not in millions, but in billions. Therefore, the short answer to the question raised is: Bulgaria, as soon as possible, must finalise the process of European integration by joining the eurozone.

I will also try to give a bit more detailed answer. For this purpose I will touch on three issues: the background of the accession process; the current situation; and some necessary steps to successfully complete this process.

Bulgaria has a long history in the European integration process with many lessons learned, but unfortunately also with a few lessons not learned. Due to time constraints, I will not go back that far, but only comment on the period after 2018. We should remember that Bulgaria was to a very large extent the initiator and leader of the last stage of the enlargement of the eurozone, which, as a rule, has begun with the accession of the national currency to the European Exchange Rate Mechanism.

The formal beginning was made in June 2018 with a letter of intent signed by the Minister of Finance and the BNB Governor and addressed to the Eurogroup, the EC, the ECB and the then 19 eurozone member states. We proposed an approach that was different from the one applied up till then. The main difference was that, in addition to the

inclusion of the Bulgarian lev in the European Exchange Rate Mechanism, Bulgaria was to join the Banking Union by establishing close cooperation between the BNB and the ECB.

Our partners have supported this approach, and the Eurogroup has announced that this is the approach that will be used for all new member states. Pursuant to this decision and exactly one year later this approach was also applied to Croatia, and thereafter the two countries moved as a package in the accession process.

Bulgaria, as soon as possible, must finalise the process of European integration by joining the eurozone

The first historically significant result was achieved in July 2020 when a European decision was made that the two currencies - the lev and the kuna – would join the Exchange Rate Mechanism and the two countries - Bulgaria and Croatia – would join the Banking Union.

Unfortunately, from the day of that decision, the two countries parted ways. Croatia clearly made the entry into the eurozone its top priority and mobilised all its political and expert capacity to achieve it. At the same time, the day of the decision marked the onset of the political crisis in Bulgaria which is still going on.

The results are known to all. Croatia has been a member of the eurozone since 1 January 2023, and Bulgaria continues to wander in the labyrinth of the political crisis.

What is the situation at the moment apart from the political context?

Now Bulgaria meets all the nominal convergence criteria, except the one of inflation, and the country meets them by a significant positive margin. The negative margin for the price stability criterion is narrowing, including in the last month, but it is expected to remain above the requirements for this criterion at the date of the forthcoming assessment to be made at the end of May.

Institutionally, the BNB and the banking sector have already become somewhat part of the eurozone by means of the close cooperation established between the BNB and the ECB in 2020. Now the BNB is the only central bank outside the eurozone that is operating in such a mode.

This ensures us a full and effective participation in the process of making and implementing the decisions on supervision and resolution of the banks in the eurozone, plus the banks in Bulgaria. The banking sector's results in the last more than three years testify to the success of this participation.

The Bulgarian lev is one of the two currencies, other than the euro, that participate in the European Exchange Rate Mechanism, which is one of the key conditions for joining the eurozone.

The adoption of the new Law on the BNB, which has received the support of the ECB and the EC, has virtually completed the process of legal convergence - one of the unalterable conditions for accession. The draft Law on the introduction of the euro, which establishes the administrative process of introducing the new currency, without being a formal requirement for legal convergence, is actually ready to be presented to, and adopted by, the National Assembly.

The logistical and technical preparations, which are largely within the BNB's competences, have reached a very advanced stage. The payment, information, accounting and statistical systems, for which the BNB is responsible, are practically ready to operate under the conditions of the eurozone and only need a final fine calibration.

We have ended the process of preparing the minting of the Bulgarian euro coins, which included coordination with the Commission and all member states, and we are moving on to the test minting of 8 million coins, 1 million of each denomination. The coin blanks, both for the test series and for the regular production, have been contracted and their delivery is about to begin.

We have provided the necessary areas for the exchange process, including in Sofia, Plovdiv and Varna, as well as the necessary machines and technical equipment for this process. By the end of May we expect to finalise the decision for Burgas, and by the end of this summer to put into operation the newly built cash centre in Pleven. The construction of this centre is part of our large-scale program for development and modernisation of the system of cash centres, which are practically industrial enterprises.

The Mint is fully prepared in terms of equipment and expertise for the minting of Bulgarian euro coins. It is yet to receive the necessary license for the minting of euro coins, which will take place after the upcoming certification of the test series of euro coins.

The joint venture of our Printing Works with the French company Oberthur Fiduciaire already has a license and prints euro banknotes for the needs of the eurozone central banks.

We are in the process of completely renewing our fleet of armoured and security vehicles, as well as approving the new transport schemes and security systems. To give you a general idea of the scale of the operation, I will point out that the total amount of banknotes and coins in the process of exchange alone amounts to about 12,300 tons, or from the point of view of transportation – the capacity of about 620 TIR trucks.

Over the past year, we have been actively working to create the capacity to conduct an active monetary policy, something that the BNB has not done in the past quarter of a century. The necessary organisational structure will be operational by the end of June.

We have created the necessary organisation to guide and control the entire preparation process. Twice a month, the Governing Council examines four reports of the three deputy governors and the general secretary, respectively, on the progress achieved, potential problems and measures to overcome them.

We are closely monitoring the commercial banks' preparations, which are also progressing according to plan, and reacting as necessary. With this incomplete list, I want to emphasise that the BNB and the banking sector will be fully ready within the current year for the introduction of the euro in our country.

Is this enough in purely technical, logistical terms? The answer is no. There are a number of, above all, information and accounting systems under the control of the executive and the municipalities, which must be adapted to work in the conditions of the eurozone. These have been identified, but considerable work is still required to be fully completed.

In addition, there are four sets of conditions in the powers of the executive that must be met before joining the eurozone, including in relation to the non-banking financial sector, insolvency, state-owned enterprises and anti-money laundering measures. I highly appreciate the caretaker government's intention to continue work on these topics.

What do we need to do to successfully finalise the joining process?

Above all else, we need a clearly established, sustainable, pro-European political structure. This is something that has been missing since we joined the European Exchange Rate Mechanism and the Banking Union.

In the earlier stage of the political crisis, the executive showed a hesitant position regarding the eurozone. For example, it took nearly a year for the government to adopt the plan drawn up and approved by the Coordination Council for the introduction of the euro, with six ministers voting against and one abstaining, including ministers key to the process.

In contrast to the earlier period, the last government stood on a clearly pro-European platform, but as the development of events has shown, it turned out to be extremely unsustainable. I also leave without comment the fact that since our admission to the Banking Union and the Exchange Rate Mechanism, we have had five different Ministers of Finance.

In establishing a sustainable pro-European political structure, we are expected to achieve several goals. First, re-establishing the political contacts on the subject at the highest level, as we must not forget that in the end it is a political process and a political decision. Unfortunately, in recent years the contacts on this topic have been protocol rather than substantive.

Second, returning to the path of fiscal consolidation, which is important not only for the accession process, but is also the basis of our most important comparative advantages in economic and financial terms. Such a development is also of great importance for the BNB, due to the need to harmonise the monetary and fiscal conditions in our country.

Third, adopting as quickly as possible the Law on the introduction of the euro, which will give clear indications, but also legal guarantees for businesses and households, as to what lies ahead.

Fourth, accelerating the work on the remaining conditions and technical preparation. Here I mean above all the issues of the government's competence, since, as I indicated, the BNB and the banking sector are working according to plan and will be fully ready before the end of this year.

If this scenario materialises as soon as possible after the upcoming elections, the chances of joining the eurozone in 2025 remain strong and entirely realistic.

In conclusion, let me sum up what I said. As a result of the political crisis of recent years, we have lost both the initiative and the leadership in the process of joining the eurozone. Nevertheless, our readiness in terms of

accession conditions, legislative and technical framework remains high. To successfully finalise the process in 2025, we also need a sustainable, pro-European political structure. ■

Dimitar Radev is Governor of the Bulgarian National Bank

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How new EU fiscal rules can succeed

The EU has enacted new rules that overhaul the Stability and Growth Pact. Lucio Pench considers the issues that need to be addressed to ensure the new fiscal rules succeed

Executive summary

The debate on the reform of the European Union's fiscal rules, the Stability and Growth Pact, has largely focused on their design. This nearly exclusive focus has distracted attention from the equally, if not more, important issue of implementation. The reform, completed in April 2024, left implementation unaddressed, or at least open to very different potential outcomes.

In particular, the reform failed to clarify the interplay between EU countries' medium-term fiscal structural plans (MTFSPs), which embody the new focus on debt sustainability, and the excessive deficit procedure (EDP), which remains the main enforcement tool under the rules. The need for clarification is urgent as several countries are set to enter EDPs for breaching the SGP's 3 percent of GDP deficit threshold at the same time as their first MTFSPs are endorsed in autumn 2024.

There is a risk that the adjustment paths prescribed by EDPs may be at least temporarily less demanding than the debt-sustainability requirements of the MTFSPs would normally imply. Even if consistency between EDPs and MTFSPs is ensured from the start, inconsistencies may arise over time and be resolved in a way that further postpones the necessary adjustment.

The main risk is that the 3 percent of GDP deficit might be perceived as the only target that matters for countries that enter EDPs in 2024, as repeated revisions of the MTFSPs undermine the cogency of the debt sustainability requirements. This scenario is likely to materialise if the countries are allowed to exit their EDPs upon bringing their deficits to or below 3 percent of GDP, while being still far from the necessary correction of the debt trajectory.

It is important to shape countries' expectations on the implementation of the upcoming EDPs in a way that is conducive to the immediate internalisation of the debt sustainability constraint implied by the new rules, rather than allowing it to be viewed as a distant objective.

This change in expectations could be achieved by clarifying that, even if a country has been placed in an EDP only for breach of the deficit criterion, it should also satisfy the debt criterion for the procedure to be abrogated.

There is a risk that implementation of the forthcoming deficit-based EDP could lead to an unravelling of the entire reform

1 Introduction

The rules meant to constrain government deficits and debt in the European Union, known as Stability and Growth Pact (SGP), consists of two 'arms'. Under the preventive arm, all countries are expected to stick to the same medium-term objective of keeping their budgetary positions close-to-balance or in surplus. Under the corrective arm or excessive deficit procedure (EDP), meanwhile, countries with deficits in excess of 3 percent of GDP (deficit criterion) or debts in excess of 60 percent of GDP that are not falling fast enough (debt criterion) are subject to specific adjustment requirements to remedy the situation¹.

Compliance with the preventive arm is backed by soft-law recommendations. The corrective arm is more intrusive and, for euro area countries, potentially backed by financial sanctions.

In April 2024, following protracted negotiations between governments and with the European Parliament, the EU enacted new rules that overhaul the SGP's preventive arm (Box 1)². The one-size-fits-all balanced budget target is dispensed with, and more focus is put on debt sustainability in each country. Countries must pursue debt sustainability through EU-endorsed, so-called medium-term fiscal-structural plans (MTFSP), which set out their intended fiscal adjustment paths.

For high-debt countries, deviating from the adjustment path can trigger the opening of an EDP with ensuing adjustment requirements. In other words, for these countries, the (debt-based) EDP is repurposed as an enforcement instrument of the new preventive arm. Countries with debt below the 60 percent threshold and no plans to exceed it are essentially left alone by the new rules, unless they breach the 3 percent of GDP deficit threshold.

The reform has left the EDP for breach of the deficit criterion (deficit-based EDP) practically unchanged. This reflects its popularity. Fiscally conservative governments see it the only element of the SGP that reliably constrains the fiscal

Box 1. The new preventive arm of the SGP (Regulation (EU) 2024/1263)

The principal aim of the new preventive arm of the SGP is to 'de-risk' public debt.

Each country should submit a medium-term fiscal-structural plan (MTFSP) setting out an adjustment path, expressed in terms of net expenditure (primary expenditure net of discretionary revenue measures, cyclical unemployment expenditure and one-off and temporary items), and covering in principle the same period as the term of that country's legislature (four or five years). By the end of the adjustment period (ie. four years at a minimum with the possibility of an extension of up to a maximum of seven years, conditional on investment and reform commitments), debt should be on a plausibly downward path or staying below 60 percent of GDP, with the deficit remaining below 3 percent of GDP over the medium term (defined as the 10-year period after the end of the adjustment). This forward-looking requirement is verified at the time of the endorsement of the plan, based on projections with unchanged policies, carried out according to a European Commission debt sustainability analysis (DSA) methodology.

The budgetary targets implied by the requirements can be expected to differ substantially across countries, depending on the starting level of debt and the projected rates of interest and GDP growth.

While maintaining these common risk-based requirements, the April 2024 reform has introduced two further numerical constraints ('safeguards'), which apply to countries with both debt above 60 percent of GDP and deficits above 3 percent of GDP. Specifically:

A debt sustainability safeguard requires the projected debt-to-GDP ratio to decrease by a minimum annual average amount of 1 percent of GDP for countries with debt ratios above 90 percent, and by 0.5 percent of GDP for countries with debt ratios between 60 percent and 90 percent of GDP, over the adjustment period. However, if a country is subject to the excessive deficit procedure (EDP) on grounds of a deficit in excess of 3 percent of GDP, the requirement does not apply before the year in which the country is projected to exit the procedure.

A deficit resilience safeguard requires that the overall deficit should eventually reach a level of no more than 1.5 percent of GDP in structural terms. Countries with higher deficits are required to adjust by a minimum of 0.4 percent of GDP per year (or 0.25 percent of GDP per year, if the adjustment period is extended to seven years).

Compliance with these requirements is verified by the European Commission and the Council of the EU, which can, if necessary, ask for revisions. Once a plan is endorsed by the Council, the net expenditure path becomes the sole reference for assessing compliance with the fiscal rules. Positive and negative deviations from the net expenditure path are accumulated in a notional 'control account'. If the balance reaches a certain threshold (0.3 percent of GDP in one year or 0.8 percent in two years), countries with debt in excess of 60 percent of GDP are liable to be subject to the EDP for breach of the debt criterion, with the associated prescriptions and eventual penalties. Countries that keep debt below the threshold of 60 percent of GDP are not liable to consequences under the new rules, other than the possibility of warnings and soft-law recommendations, unless they breach the 3 percent of GDP deficit threshold³.

behaviour of their more deficit-prone partners (hence the insistence of fiscal hawks on retaining other numerical fiscal constraints). High-debt, high-deficit countries, meanwhile, appreciate the bespoke nature of the procedure, including the opportunities it offers for renegotiation if the corrective path is not met.

Importantly, the relative effectiveness of the deficit-based EDP, which is confirmed by empirical evidence (De Jong and Gilbert, 2020; Caselli and Wingender, 2021), appears to depend more on the stigma associated with governments being made subject to the procedure, rather than on the hypothetical possibility of financial sanctions. Stigma may include the impact of the EDP on government debt risk premia (Diaz Kalan *et al* 2018).

The debate on the reform has focused on the design of the rules, in particular the tension between the original objective of medium-term debt sustainability and the numerical constraints ('safeguards') that have been added to the requirements of the plans. This has distracted attention from the equally, if not more, important aspects of implementation, which the reform has left unaddressed, or at least potentially open to very different outcomes.

In particular, the reform has failed to clarify the interplay between the EDP and the new preventive arm in important respects. This risks compromising the functioning of the new framework from the outset. Many countries currently have both high debts and high deficits. Addressing these is urgent, requiring smooth coordination in the deployment of the SGP's old and new tools.

Specifically, preliminary simulations by Darvas *et al* (2024) suggest that if the debt-sustainability based adjustment requirements are applied rigorously, in about half a dozen cases the MTFSPs will have to set an annual fiscal adjustment in excess of 0.5 percent of GDP (in terms of structural primary balance), to be sustained for as long as seven years, something for which there is hardly any precedent.

At the same time, about a dozen countries are expected to immediately enter the EDP and receive adjustment prescriptions because of deficits persistently in excess of 3 percent of GDP. Several countries, including in particular Italy, France, Spain and Belgium, will likely be affected by both sets of prescriptions.

Note that high-debt countries are not immediately exposed to the debt-based EDP, because under the reform, the procedure can be triggered only by an accumulated deviation from the adjustment path in the MTFSP, while the first cohort of MTFSPs will be endorsed by the EU more or less simultaneously with the opening of the EDPs, which therefore will be only deficit-based. Although there is still some uncertainty on the timing of the procedures, the expectation is that EDPs will be opened and MTFSPs endorsed in autumn 2024⁴.

Last but not least, the interplay between the EDP and the new preventive arm cannot be properly understood if one neglects two essential contextual elements, which do not stem from the new rules as such but can be inferred from a systematic reading of the EU fiscal governance legal framework (Pench, 2024):

- In spite of the common-parlance distinction between deficit-based and debt-based EDPs, legally there is only one procedure. This means that, once the EDP has been opened based on one criterion, a second procedure based on the other criterion cannot be superimposed on the existing procedure. Conversely, the closure ('abrogation') of an EDP opened based on one criterion should or even must be subordinated to the satisfaction of both criteria.
- The wide discretion enjoyed by the European Commission and Council in setting, and, if necessary resetting, adjustment paths, including departures from the apparently rigid benchmarks in the corrective arm, as long as a country is subject to an EDP⁵.

A further implication is that the application of the provisions on fiscal-structural plans should not result in undue restraint on the operation of EDPs, and in case of apparent conflict the latter should prevail. This principle, which has been described as ‘the primacy of the EDP’ reflects the strength of the respective legal bases and is firmly established in surveillance practice⁶.

Taken together, these elements point to serious risks that need addressing when launching and implementing the forthcoming EDPs. Hopefully, they also suggest possible responses.

Risk 1. Defining the initial corrective path for countries subject to the EDP

It stands to reason that, if EDPs are opened at about the same time as MTFSPs are endorsed by the Council, the prescribed fiscal adjustment path should be the same, at least as long as the periods covered by the two procedures coincide.

It is not sure, however, that adjustment paths will be fully in line with the debt-sustainability requirements of the new preventive arm.

The principle of the primacy of the EDP over the preventive arm suggests that the adjustment in the MTFSPs would have to be aligned to that prescribed in the EDP. This conclusion is confirmed by a provision in the new preventive arm requiring that the trajectories that should serve as a reference for the MTFSP show “*consistency with the corrective path*” in the applicable decisions under the EDP (Regulation 1263/2024, Article 6(d)). In turn, for deficit-based EDPs, the reformed EDP regulation specifies only a “*minimum annual structural adjustment of at least 0,5 percent of GDP as a benchmark*” [sic] (Regulation 1264/2024, Article 3(4)).

Moreover, for 2025-2027, the regulation contains an ad-hoc provision allowing a downward departure from the 0.5 percent of GDP benchmark adjustment⁷. The reading of the provisions is complicated further by the fact that

the 0.5 percent of GDP benchmark adjustment is defined in terms of total structural balance, while the individual adjustment path prescribed to the countries by the EDP and the MTFSPs should be in terms of net expenditure, that is, approximatively, in terms of structural primary balance.

Bearing also in mind the wide discretion enjoyed by the Commission and the Council in setting the individual adjustment path under the EDP, there is reason to be concerned that that the adjustment paths in the forthcoming EDPs will focus on the deficit target of 3 percent of GDP, while falling short of the adjustment required, on an annual basis, to satisfy the debt sustainability requirements of the new preventive arm.

This would paradoxically result in more favourable treatment of the countries subject to an EDP, relative to countries that have already brought their deficits below 3 percent of GDP. Nor would demanding that the countries make up for the gap relative to the debt sustainability requirements after they have brought their deficits below 3 percent of GDP be a satisfactory solution, because of the obvious questions of credibility it would raise.

The logical way to address this risk, from both the economic and legal points of view, would be to clarify that the minimum benchmark adjustment under a deficit-based EDP (including the temporary exception for 2025-2027) should not be interpreted as allowing for individual adjustment paths inconsistent with the debt-sustainability requirements of the preventive arm.

Risk 2. Divergence from the MTFSP during the implementation of the corrective path agreed under the EDP

The consistency in principle between individual adjustment paths under the EDP and in MTFSPs set out at start of the process does not mean that inconsistencies might not arise, for two reasons.

First, the narrow focus of the deficit-based EDP on bringing down the deficit to 3 percent of GDP introduces a 'nominal bias' in the working of the procedure: a government that is on its way toward the nominal target of 3 percent of GDP does not have to face demands for budgetary correction, irrespective of whether or not it has delivered on the prescribed structural adjustment included initially in the MTFSP. Specifically, as long as a country achieves its nominal deficit targets, escalation of the EDP – potentially leading to sanctions – is not an option⁸.

It is therefore not difficult to imagine a scenario in which a country complies with the EDP recommendation – or, more precisely, it cannot be penalised for departing from it – while deviating from the adjustment path, for example, through recourse to temporary measures, or thanks to windfall revenues.

This may be less of a problem than it seems, at least as long as it does not lead to the country exiting the EDP (see Risk 3). If the EDP covers several years, which is bound to be the case for countries starting from high deficits, it is anyway not very likely that a country will hit nominal deficit targets year after year without a corresponding structural adjustment.

A more serious reason why the initial structural adjustment may fall by the wayside is existence of another bias in implementation of the procedure, as distinct from its design. This is a 'no-escalation bias', referring to the reluctance of the Commission and the Council to escalate the EDP even when a country deviates from the structural and the nominal adjustment path.

Instead, the practice has been to issue a revised EDP recommendation with an extended deadline. While the adoption of a single indicator should make it easier to determine whether the adjustment has been delivered or not, incentives to fudge would persist, especially given the heavy penalties, both direct and indirect, that could accompany the escalation of an EDP (Box 2).

Since the no-escalation bias essentially reflects a tendency to depart from what the rules would prescribe when this would lead to politically awkward consequences, it is hard to tackle the problem by looking only at the rules and suggesting a different interpretation.

The reputational cost of refraining from escalation could be increased, for example by asking the European Fiscal Board (EFB), the independent advisory body established by the Commission, to provide its advice, a possibility introduced by the reform.

Note however that, since the right to ask for an EFB opinion is limited to the Commission and the Council, this reputational risk could be safely ignored if the Commission and the Council agreed to pretend that there has not been a deviation from the structural adjustment path, and to extend the deadline for correcting the excessive deficit via a new EDP recommendation.

Another possibility would be that of reducing the potential fines attached to the escalation of the EDP to symbolic amounts, to give them a purely reputational effect.

The reform is silent on what would happen to an MTFSP in case the EDP recommendation is revised. The principle of the primacy of the EDP suggests that in case a revised EDP recommendation is made, an MTFSP, including in particular the adjustment effort, should be revised correspondingly, in spite of the provisions in the preventive arm that are meant to discourage changes in the structural adjustment path.

This would restore consistency between the MTFSP and the EDP, at the price of a delayed adjustment. One could note that what matters for debt sustainability is the size of the total adjustment; simulations suggest debt dynamics would hardly change if the fiscal adjustment took a few more years.

Therefore, it might be concluded that the problem is less serious than it at first appears, provided that pressure to adjust under the EDP is maintained. This proviso is crucial and coincides with the main risk to be addressed when launching and implementing the forthcoming EDPs.

Risk 3. Exit from an EDP might be based only on achieving the 3 percent of GDP deficit, turning the framework into a ‘free for all’

Possibly the most important question that the SGP reform has left unaddressed concerns the conditions for exiting an EDP (‘EDP abrogation’), in particular in cases when the EDP was opened based only on the deficit criterion (which, as noted, will be the case for all the forthcoming EDPs, including for high-debt countries).

The formulation of the relevant provisions in the new EDP regulation seems to suggest that, in case an EDP was not opened based on the debt criterion, ie. it was opened only for breach of the 3 percent of GDP deficit threshold, the procedure should be closed as soon as the deficit has been durably brought under 3 percent of GDP. The relevant provision (Regulation 1264/2024, Article 8(3)) is worth quoting more fully:

“A Council decision shall only be taken pursuant to Article 126(12) TFEU [Council decision abrogating decisions or recommendations under the EDP “to the extent that the excessive deficit ... has in the view of the Council been corrected”] where the deficit has been brought below the reference value and is projected by the Commission to remain so in the current and following year and, where the excessive deficit procedure was opened on the basis of the debt criterion, the Member State concerned respected the corrective net expenditure path set by the Council in accordance with Article 3(4) or Article 5(1) of this Regulation” [Council recommendation for the correction of the excessive deficit or Council decision to give notice to take measures for deficit reduction (escalation of the EDP in case of no effective action in response to the recommendation)].

Box 2. Escalating an EDP; a 'nuclear option' that will never be exercised?

The EU Treaty envisages the possibility of sanctions, including fines, only after the repeated failure by a country subject to an EDP to take effective action to correct the excessive deficit (Article 126(11) TFEU). The SGP was initially limited to specifying the amount of the potential fines.

To strengthen the enforcement of the fiscal rules, the 2011 'six-pack' reform of the SGP introduced further sanctions, of 0.2 percent of GDP, at an earlier stage in the procedure – after the finding that the country had not taken effective action in response to the initial adjustment recommendations received under the EDP.

Moreover, the sanctions were expected to be triggered 'automatically' by the Commission once the Council had established, based on a Commission proposal, that the country had not taken effective action under the EDP.

The new enforcement provisions were tested first in 2015, following a substantial apparent deviation by France from the adjustment recommended under the EDP. On that occasion the Commission resorted to a double-negative formulation – *“Overall ... the available evidence does not allow to conclude on no effective action”* – to avoid proposing to the Council that it should establish that France had not taken effective action (European Commission 2015).

This episode provided the background to the controversial statement by then Commission President Juncker, who said the apparent breach of the fiscal rules by France was ignored by the Commission *“because it is France.”*⁹

The second test of the enforcement provisions occurred in 2016, when the Commission and the Council found Portugal and Spain liable for no effective action with respect to their respective EDP recommendations. The Commission however evaded the obligation to trigger the imposition of a fine of 0.2 percent of GDP by recommending that the Council simply cancel the fine (Council of the EU, 2016, 2017a). Critics of the decision presented the episode as the 'death' of the six-pack reform¹⁰.

The enforcement provisions have not been invoked since, though they remain in force and were left largely untouched by the 2024 reform¹¹.

In addition to the above sanctions, which apply only to euro area countries, the decision to escalate the EDP has become the potential trigger for the suspension of funds under the European Structural and Investment Funds (ESIF) and the Recovery and Resilience Facility (RRF). It could also result in the loss of eligibility for government security purchases by the European Central Bank under the Transmission Protection Instrument.

The decision to escalate the EDP may therefore be seen as a 'nuclear' option, a perception that would likely reinforce the observed no-escalation bias.

The previous sections have highlighted the risk that the forthcoming EDPs may fail to achieve compliance on the part of high-debt countries with the debt-sustainability requirements that are central to the reform, either because the initial adjustment path may not be sufficiently stringent (Risk 1) or because the countries may deviate from the adjustment path without facing serious consequences (Risk 2).

Our analysis of the second risk concluded, however, that even if the required adjustment was less than fully complete and was delayed relative to the initial timeline, the EDP should eventually be able to put the debt dynamics on a safe path.

An exit from an EDP based only on achieving the 3 percent of GDP deficit would undermine this reassuring conclusion.

If, as the formulation of the provisions on abrogation may lead them to expect, high-debt countries are able to exit the EDP solely by bringing the deficit below 3 percent of GDP, irrespective of where they stand relative to the debt-sustainability requirements, there is reason to be afraid that the debt-sustainability requirements will never be enforced.

One might argue that a high-debt country that exits a deficit-based EDP with an accumulated deviation relative to the adjustment path in its MTFSP (although likely revised from its initial version, to reflect intervening revisions in the EDP), should immediately face the (re-) opening of the EDP based on breach of the debt criterion.

Evoking this scenario explicitly is equivalent to showing its implausibility. Against the unpalatable prospect of revolving-door EDPs, the temptation will be simply too strong to exploit all the leeway available under the rules.

In particular, the Commission and the Council might leverage the ambiguities in the provisions allowing for the revision of MTFSPs and the resetting of the 'control account' in which the deviation from the adjustment path is recorded, to make a 'clean slate' of all past deviations when countries exit the EDP. The Commission and Council might ask those countries simply to submit an entirely new MTFSP.

A clean-slate scenario for high-debt countries after achieving the 3 percent of GDP deficit is likely to have substantial negative ramifications for the working of the entire framework.

Besides constituting a source of moral hazard, it would exacerbate the inequality of treatment across countries. Compared to those starting from lower deficits, the countries initially made subject to an EDP for breach of the 3 percent of GDP deficit threshold would effectively be granted a potentially much longer adjustment to satisfy the debt-sustainability requirements of the preventive arm.

It is not difficult to imagine that, to mitigate this inequality of treatment, the Commission and the Council would adopt a comparably lenient attitude toward deviations from the adjustment path by countries with deficits below 3 percent of GDP.

Specifically, such deviations might never be considered sufficient reason for opening debt-based EDPs against these countries, even if their debts exceeded the 60 percent of GDP threshold. In this connection, one should recall that, although the EDP regulation contains a presumption that, for countries facing "*substantial public debt challenges*"¹², a deviation from the adjustment path in the MTFSP should lead to the opening of the debt-based EDP, the presumption is far from absolute.

The Commission and a Council continue to enjoy wide discretion in assessing all the “*relevant factors*” before deciding the opening of the EDP for breach of the debt criterion. This stands in contrast with the ‘quasi-automatic’ opening of the EDP for breach of the 3 percent of GDP deficit threshold.

The outcome of this scenario would be an early disintegration of the SGP reform into a ‘free for all’, with the 3 percent of GDP deficit threshold remaining, effectively, the only fiscal rule that countries would need to care about.

While assessments of the likelihood of this scenario might differ, it should be noted that it retraces almost exactly the history of the first attempt to operationalise the debt criterion of the EDP by the ‘six-pack’ reform: the adoption of a transitory regime before the full application of the newly introduced ‘debt rule’ ended up in the rule never being applied (Box 3).

There is however a solution that would avoid the risk of an early degeneration of the reform. It would require a clarification that, even if a country has been placed in an EDP only for breach of the deficit criterion, it should also satisfy the debt criterion of the EDP for the procedure to be abrogated.

At first sight this specification would seem to contradict the provisions quoted above, which seem to entitle a country to exit the procedure once it has brought its deficit below 3 percent of GDP, if the EDP was opened based on the deficit criterion.

However, the provisions could be read as implying that, for countries with debt in excess of 60 percent of GDP, the deficit condition should be considered as necessary, but not sufficient for the abrogation of the EDP. An argument supporting this reading is that it would be fully in line with the specifications on the abrogation of the EDP agreed by the Council in the aftermath of the ‘six-pack’ reform, which posed for the first time the question of the interplay between a deficit-based and debt-based EDP.

To make the proposed solution work, two further questions would need to be addressed.

The first concerns the adjustment path that deficit-based EDPs should prescribe to countries with debt in excess of 60 percent of GDP. If the adjustment is to be conducive to satisfying also the debt criterion, then it would seem evident that, even if opened for breach of the 3 percent deficit threshold, an EDP should cover the entire adjustment period under the MTFSP, the rationale of which is to achieve debt sustainability¹⁴.

This would reinforce the conclusion that the adjustment path under an EDP should not be inconsistent with the debt-sustainability requirements of the preventive arm (Risk 1).

The second question is how to define the condition for abrogation of the debt-based EDP, which would have to apply to all countries subject to an EDP, if their debt exceeds 60 percent of GDP. The abrogation provisions quoted above make sufficiently clear that a debt-based EDP cannot be abrogated if the country does not respect the structural adjustment ('net expenditure') path. The provisions are not equally clear, however about the length of the period during which compliance with the net expenditure path should be ensured, before the EDP can be abrogated.

If it is accepted that the period covered by the EDP should in principle coincide with that covered by the MTFSP, this would seem a natural reference for verifying that the abrogation condition has been satisfied. Two further specifications could be added to complete the conditions to qualify for abrogation: allowing for early abrogation of the EDP in case the sustainability requirements have been achieved (an unlikely scenario for high-debt countries); and requiring a minimum period of uninterrupted adherence to the net expenditure path before abrogation.

Note that the latter specification was explicitly envisaged in the original Commission proposal for reforming the EDP regulation¹⁵. It could be reintroduced in the revision of the Code of Conduct or analogous specifications following the entry into force of the reform.

Finally, it would be desirable that the conditions for escalating the EDP should be clarified, in particular whether the above-described 'nominal bias' (Risk 2) should continue to constrain the operation of the debt-based EDP.

Conclusion

There is a risk that implementation of the forthcoming deficit-based EDP could lead to an unravelling of the entire reform. This could happen if the implementation allows high-debt countries: i) to undertake, at least initially, less fiscal adjustment than they would be required to under the new preventive arm, that is, if they were outside an EDP; ii) to further postpone the adjustment in the course of an EDP without having to face consequences; and, above all, iii) to exit an EDP purely based on the achievement of the 3 percent of GDP deficit threshold. This may not be the intention of the prescriptions that countries will receive when the EDPs are opened. It may well be the outcome by the time the EDPs are closed, based on past experience with the implementation of the SGP.

Preventing this requires a common understanding between the Council and the Commission that:

1. The adjustment path prescribed under the deficit based-EDPs should be consistent with the debt-sustainability requirements of the preventive arm.
2. A deviation from the initial adjustment path during should not result in a revised path that moves further away from the debt-sustainability requirements and does not trigger any penalties under the EDP.

3. Even if a country has been made subject to an EDP only for breach of the deficit criterion, it should also satisfy the EDP debt criterion for the procedure to be abrogated. The conditions for abrogation and escalation of the debt-based EDP should be clarified.

A common understanding on these points could be put forward by the European Commission and endorsed by the Council.

One might object that the understanding proposed under 1), while fully in line with the overall logic of the reform, would run, in the author's view, against an apparent tacit understanding reached at the time of the adoption of the reform allowing for some backloading of adjustment (as reflected in particular by the temporary relaxation of the normal adjustment requirement under the EDP).

Irrespective of the existence or the value of such a tacit understanding, allowing any temporary deviation from the debt-sustainability requirements would make even more important to affirm the understandings proposed under 2) and, crucially, 3).

Enforcement has consistently proved the weakest link in the system of EU fiscal rules. The 2024 reform will be judged a success not for having managed to achieve a fragile consensus on new rules, but if the new rules are shown to improve the incentives for countries to avoid potentially unsustainable debt trajectories. ■

Lucio PENCH is a Non-Resident Fellow at Bruegel

Box 3. The lack of enforcement of the 1/20th rule: a cautionary tale

One of the main features of the 2011 'six-pack' reform was the so-called '1/20th rule' – a requirement for countries with debt above 60 percent of GDP to reduce it by an annual average of at least 5 percent of the difference between the debt level and 60 percent. Countries that failed to make this minimum adjustment were to be placed in a debt-based EDP.

The question was how to treat countries that had been placed in the EDP on the basis of the deficit criterion before the entry into force of the reform. It was decided that these countries would be given a three-year transition period, during which they would not be liable for a debt-based EDP, provided that they made sufficient progress towards compliance with the benchmark. The Commission was even tasked with producing a numerical indicator to gauge progress towards compliance¹³.

Effectively, however, once countries exited the deficit-based EDP, non-compliance with the debt criterion, either in its transitory or permanent formulation, never resulted in an EDP being opened based on the debt criterion.

Even when the Commission clarified that compliance with the preventive arm of the SGP would be considered a key relevant factor in assessing compliance with the debt criterion (effectively sidelining the debt-reduction benchmark), no debt-based EDP was activated, irrespective of the persistent lack of compliance with the preventive arm, in particular, by countries with the highest debt ratios (Commission, 2020).

Endnotes

1. Each arm of the SGP corresponds to an EU regulation. The EDP is based on specific Treaty provisions (Article 126 of the Treaty on the Functioning of the EU), the application of which is further specified by Regulation (EC) No 1467/97. The rules of the preventive arm meanwhile were first formulated through Regulation (EC) No 1466/97, based on the general Treaty provisions on the coordination and surveillance of economic policies (Article 121 TFEU). SGP reforms in 2005 and 2011 amended both regulations. The 2011 reform (included in the so-called 'sixpack' package) sought in particular to strengthen the enforcement of the fiscal rules and implement the hitherto ignored EDP debt criterion (see Boxes 2 and 3). The April 2024 reform of the SGP replaces the preventive arm regulation with Regulation (EU) 2024/1263 and amends the EDP regulation.
2. See Council of the EU press release of 29 April 2024, '[Economic governance review: Council adopts reform of fiscal rules](#)'.
3. For further details and an overall economic assessment of the new rules, see Pench (2024) and Darvas et al (2024). See also Jeromin Zettelmeyer, '[Assessing the Ecofin compromise on fiscal rules reform](#)', First Glance.
4. The European Commission (2023c) stated that the EDP would be reactivated in spring 2024, following the official release by Eurostat, by end-April 2024, of the deficit and debt outturns for 2023 (see Eurostat release of 22 April 2024, '[Euro area government deficit at 3.6% and EU at 3.5% of GDP](#)'). According to the EDP regulation, this would normally imply opening of EDPs within the subsequent four months. However, the final text of the new preventive arm contains a provision on the submission of the first MTFSPs, according to which countries "should submit their medium-term fiscal-structural plans by 20 September 2024" (Regulation 1263/2024, Article 36(a)), instead of the normal deadline of 30 April. Considering that the same regulation envisages a maximum of six weeks for the Commission to assess the plans, and that presumably initial consistency will be ensured between the adjustment path in the EDPs and the MTFSPs, it seems reasonable to expect that the opening of the EDP and the endorsement of the MTFSPs will take place at the same time in autumn 2024.
5. Possibly most graphic example of departure from the rules of the corrective arm in the individual prescriptions addressed to countries under an EDP concerns the EDPs opened in 2009-10 in the wake of the Great Financial Crisis, when

countries were urged to temporarily accommodate the increase in public deficits and even adopt expansionary policies, in contrast to the immediate fiscal consolidation in principle envisaged by the rules once a country is subject to the procedure (European Commission, 2010).

6. The primacy of the specific prescriptions of the EDP over the general provisions of the preventive arm is illustrated by the practice whereby, for countries subject to an EDP, the 'annual fiscal recommendation', part of the annual country-specific recommendations in the context of the European Semester (based on Article 121(3) TFEU), is limited to simply stating that they should respect the EDP recommendation that they have received (regardless of the provisions of the preventive arm that would apply otherwise).

7. Regulation 1263/2024, Recital 23. The smaller adjustment is meant to take into account the ongoing increase in the average interest rate on debt (making a 0.5 percent of GDP adjustment in terms of overall balance more demanding than the same adjustment in terms of the primary balance) and "not to compromise the positive effects of the Recovery and Resilience Facility."

8. This conclusion is reached by recursive reasoning starting from the observation that, in the case of an EDP covering a single year, if the country has brought the deficit below 3 percent of GDP, the deficit criterion of the EDP has been satisfied and the country cannot continue to be subject to the EDP on grounds of the deficit criterion, irrespective of whether or not the prescribed structural adjustment has been delivered. This has been consistently interpreted to imply that, for an EDP covering more than one year, the procedure cannot be escalated as long as the country can be considered to be on its way to eventually achieve the 3 percent of GDP deficit. Intermediate nominal targets were introduced to operationalise the otherwise ambiguous notion of being on the way toward the 3 percent of GDP. For reasons of symmetry in the operation of the procedure, intermediate deficit targets equally apply to debt-based EDPs. This approach was confirmed explicitly by the Code of Conduct of the Stability and Growth Pact endorsed by the ECOFIN Council (Council of the EU, 2017, p. 15): "For legal reasons, a deficit-based EDP cannot be stepped up if the Member State achieves its intermediate headline deficit target, even when the recommended change in the structural balance is not achieved. At the same time, though, a careful analysis should still be conducted to better understand the nature of the underlying budgetary developments."

While intermediate deficit targets are no longer specifically mentioned in the reformed EDP regulation, and the Code or analogous specifications will have to be revised to reflect the reform of the SGP, it is difficult to see how the 'nominal bias' could be eliminated, since it is a consequence of the role of the 3 percent of GDP deficit threshold in the EDP, which remains unchanged.

9. Francesco Guarascio, *'EU gives budget leeway to France 'because it is France' – Juncker'*, Reuters.

10. Daniel Gros, *'The second death of the Stability Pact and the birth of an inter-governmental Europe'*, CEPS Commentary, 28 July 2016.

11. Regulation 1264/2024 (Article 12) reduces the sanctions envisaged by the Treaty (Article 126(11) TFEU) as an ultimate consequence of repeated non-compliance with EDP decisions from a minimum of 0.2 percent of GDP per year to 0.005 percent every six months. However, the sanctions introduced by the six-pack reform in connection with an escalation of the EDP remain unchanged at a default amount of 0.2 percent of GDP.

12. Regulation 1264/2014 Article 2(4). Substantial debt challenges are understood to refer to countries classified as 'high-risk' according to the medium-term sustainability risk classification of the Commission Debt Sustainability Monitor (European Commission, 2023a). In the 2023 Monitor, this category included Belgium, Greece, Spain, France, Croatia, Italy, Hungary, Portugal and Slovakia.

12. Regulation 1264/2014 Article 2(4). Substantial debt challenges are understood to refer to countries classified as 'high-risk' according to the medium-term sustainability risk classification of the Commission Debt Sustainability Monitor (European Commission, 2023a). In the 2023 Monitor, this category included Belgium, Greece, Spain, France, Croatia, Italy, Hungary, Portugal and Slovakia.

13. The indicator was meant to measure the distance between the current structural position of the country and the position consistent with the respect of debt reduction benchmark at the end of transition period (see European Commission, 2019).

14. A specific provision in the EDP Regulation 1264/2024 seems to confirm the possibility that an EDP opened on the basis of the deficit criterion may extend beyond bringing the deficit below 3 percent of GDP. Specifically, Article 3(4) of the

Regulation amending the EDP regulation prescribes that (emphasis added): “Where the excessive deficit procedure was opened on the basis of the deficit criterion, for the years when the general government deficit is expected to exceed the reference value, the corrective net expenditure path shall be consistent with a minimum annual structural adjustment of at least 0,5% of GDP as a benchmark” (sic).

15. The Commission proposal for revision of the EDP regulation (European Commission 2023b) required (Article 8(3)) that for the abrogation of a debt based EDP: “the Member State concerned respected the corrective net expenditure path set by the Council in accordance with Article 3(4) or Article 5(1) of this Regulation [Council recommendation for the correction of the excessive deficit or Council decision to give notice to take measures for deficit reduction (escalation of the EDP in case of no effective action in response to the recommendation)] over the previous 2 years and is projected to continue to do so in the current year on the basis of the Commission forecast.”

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Why Europe must safeguard its global currency status

Amid geopolitical shifts Piero Cipollone argues Europe needs to further develop the infrastructure for making crossborder payments in euro with key partners

For the last quarter of a century, the euro has been a key global currency, second only to the dollar. It has demonstrated its resilience despite the coronavirus pandemic, Russia's war in Ukraine and the tragic conflict in the Middle East. The euro's estimated share of international currency use stands at over 19 per cent, a level that has remained broadly stable over the past five years.

Nevertheless, the currency's place on the global stage cannot be taken for granted, as a [recent report](#) by the European Central Bank on the international role of the euro shows. More reforms are needed.

China's increasingly large role in global trade is encouraging use of its currency. By 2023, the renminbi's share of China's trade invoicing had risen to around one-quarter for goods and one-third for services. It is racing with the euro to become the second most used currency for trade finance¹.

History shows that the evolution of global currencies is deeply intertwined with that of the global geopolitical order. In an increasingly multipolar world, there are signs that the fragmentation of the global monetary system is no longer a remote possibility.

To diversify and protect against geopolitical risks, central banks — led by China's — are accumulating gold at the fastest pace seen since the second world war. And anecdotal evidence suggests that some countries are exploring ways of using their own currencies more in international trade transactions instead of those of countries sanctioning Russia.

Yet nowhere else are the risks of global monetary system fragmentation more visible than in international payments. At a time when we should be integrating payment systems to reduce their complexity and cost to users, some nations are deliberately creating separate platforms as alternatives to existing global infrastructures.

For example, China, Iran and Russia have created their own crossborder payment messaging systems, while BRICS members have started to discuss a 'bridge' platform for linking digital payments and settlement. These developments could potentially disrupt the smooth flow of capital and reduce the efficiency of the global financial system.

Given these shifts, there are compelling economic and political reasons for seeking to preserve the euro's global currency status. This status brings tangible benefits to European citizens, such as low borrowing costs in international capital markets and protection from exchange rate volatility.

By bolstering safety, liquidity and connectivity, we can ensure that the euro continues to strengthen as a cornerstone of the global monetary system

Moreover, in a fragmented geopolitical landscape, the euro's international currency status provides strategic autonomy by shielding Europeans from external financial pressures.

Internally, the euro's appeal to foreign investors hinges on maintaining confidence in its stability, supported by well-anchored expectations of price stability and sound economic policies. And its appeal depends on the size and liquidity of the market for safe euro-denominated debt securities and the resilience of the underlying market infrastructures, particularly as a haven in times of stress.

A majority of official reserve managers have expressed an interest in increasing their euro holdings but note that the currency's attractiveness is hampered by a lack of highly-rated assets and centrally-issued debt².

So building a stable, technically resilient, and deeper market for internationally accepted euro debt securities is essential. To be a reliable haven in times of stress, this market could be supported by a robust and flexible supply of common instruments³.

Providing a broader pool of euro-denominated safe assets, which would act as a European risk-free benchmark, would also be crucial to deepening euro-denominated capital markets. That is why building a genuine European capital markets union must go hand in hand with efforts to further strengthen the fiscal dimension of the EU economic and monetary union.

Externally, Europe needs to further develop the infrastructure for making crossborder payments in euro with key partners. This could, for example, involve interlinking the euro area's Target Instant Payment Settlement system with fast payment systems in other jurisdictions, either through bilateral links or by connecting to a common, multilateral platform.

Such steps could strengthen the trade and financial relations with key partners, including emerging economies, especially where legislation on combatting money laundering and terrorist financing is fully aligned with the international standards established by the Financial Action Task Force. They could also pave the way for central bank digital currencies to be used to make crossborder payments in the future.

Robert Mundell — the late international economist whose Nobel Prize-winning work was so influential for the creation of Europe’s single currency — once said of the euro: *“In all the aspects in which it was expected economically to make an improvement, it has performed spectacularly.”*⁴

By bolstering safety, liquidity and connectivity, we can ensure that the euro continues to strengthen as a cornerstone of the global monetary system. ■

Piero Cipollone is a Member of the Executive Board of the European Central Bank

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This article is based on an [ECB blog post](#).



Building confidence in the path ahead

Christine Lagarde outlines what needs to be done to
become sufficiently confident to start dialling back the
ECB's restrictive policy stance

Since the pandemic, monetary policymakers have been facing an exceptionally complex environment. As inflation rose, we were confronted with profound uncertainty about how far it would go and how widely it would spread across the economy. And even as inflation has eased, uncertainty about its persistence has remained.

The potential costs of mis-calibrating policy have been high, which is why we had to employ a policy framework that minimises the risk of mistakes. And we have done so by building our reaction function around three criteria: the inflation outlook, the dynamics of underlying inflation and the strength of monetary transmission.

Though we conceived these criteria when we had low visibility of future inflation, they have also helped guide our decisions as inflation has fallen and forecasts have become more accurate.

As Marie Curie once said, to thrive through the ups and down of life, *“we must have perseverance and above all confidence.”* And our framework has indeed encouraged us to persevere when necessary and to build up confidence when needed. It has served as a reliable compass for calibrating policy through three phases of our current policy cycle.

First, it helped create robustness during our tightening phase when we were devising how far we needed to go to rein in inflation.

Second, it has helped us practice patience during the holding phase until the signals from our inflation projections and underlying inflation are more consistent.

Third, it will support us in building up sufficient confidence to begin the dialling-back phase in which we make policy less restrictive.

The tightening phase

In the early phase of our tightening cycle, our main priority amid surging inflation rates was to exit our accommodative policy stance as quickly as possible. While the policy challenge was immense, the policy path was relatively simple to calibrate.

To calibrate policy accurately we needed a framework for policy decisions that would work when we had low visibility and would mitigate heightened uncertainty

But as rates rose and approached restrictive territory, calibrating our policy stance became more complex. We first had to assess how much rates needed to rise until they were sufficiently restrictive, and then for how long they needed to stay at that level. But our assessment was blurred by much lower-than-normal visibility of the future.

Our forecasts repeatedly underpredicted inflation by large margins, even at shorter horizons. From 2021 to 2022 for example, the absolute inflation forecast errors in the staff macroeconomic projections, one quarter ahead, more than doubled, largely owing to volatile energy prices¹.

At the same time, the mix of shocks that emerged from the pandemic and its aftermath – rotations in spending, energy spikes, ‘bullwhip’ cycles in manufacturing, supply bottlenecks, tight labour markets, fiscal expansion and reopening effects – heightened the risk of inflation becoming more persistent.

We faced a highly unusual conjuncture of high inflation and declining real wages, but also rising employment. This combination essentially implied a multi-year catch-up process to make up for real wage losses. In turn, this process could have triggered what I referred to at last year’s conference as a ‘tit-for-tat’ inflation dynamic².

And we faced uncertainty as to how quickly and forcefully our monetary policy response would succeed in bringing down inflation. The ECB had not been through a tightening cycle for more than a decade, and there were reasons to believe that the transmission of monetary policy to firms and households might have changed³.

So, to calibrate policy accurately, we needed a framework for policy decisions that would work when we had low visibility and would mitigate heightened uncertainty. This is why we built our monetary policy response around the three criteria I referred to earlier: the inflation outlook, the dynamics of underlying inflation and the strength of monetary transmission.

This approach made our decisions more robust, as the inflation path we foresaw in our projections had to be validated by data we could observe in real time and extrapolate into the medium term. That, in turn, enabled us to take forward-looking decisions with a higher degree of confidence. And it served us well in practice.

The three criteria helped us to map out the remaining climb, allowing us to bring rates to sufficiently restrictive levels to break the persistence of inflation⁴. But also, by guiding us to carefully evaluate the strength of policy transmission, they acted as a cross-check against overtightening. This helped us reach the decision to stop rate hikes after last September.

The holding phase

We then entered the current phase of our policy cycle – the holding phase – during which we committed to keep rates at restrictive levels for as long as necessary. Since the start of this phase, inflation has been declining consistently and our projections have been showing inflation returning to our target over the medium term.

We now project inflation to average 2.3% in 2024, which is 0.4 percentage points less than projected in December and 0.9 percentage points less than September. We then expect inflation to decline to 2.0% in 2025 and 1.9% in 2026.

And unlike in the earlier phases of our policy cycle, there are reasons to believe that the expected disinflationary path will continue. First, for some time now inflation outturns have been broadly in line with our expectations. In 2023 we saw a reduction of about 70% in the average absolute error in our staff projections relative to 2022, one quarter ahead.

Second, we now see inflation returning to 2% earlier in our projection horizon than before, in mid-2025, and not exceeding our target for the remainder of the horizon.

Third, the composition of inflation is improving, as we now expect lower core inflation in the medium term. This suggests that the convergence to 2% is likely to be more durable and less beholden to assumptions about commodity prices, although the latter can always prove hazardous.

The other criteria are also becoming more consistent with this improved inflation outlook. The transmission of our monetary policy is unfolding in the right direction. Financing conditions have reacted strongly to higher rates, loan demand has weakened and, in turn, activity has slowed notably in the most interest-sensitive sectors of the economy.

And underlying inflation is generally easing. Nearly all the measures that we track are declining, and the range of readings between the different measures has narrowed from 4.1 percentage points at its peak to 2.4 percentage points today. Some of the measures of underlying inflation with the best leading indicator properties for future inflation have dropped steeply⁵.

But, at the same time, domestic price pressures remain strong. Services inflation is still stubborn and hovering around 4%, while momentum increased somewhat in February. And our indicator of domestic inflation, which measures items with a low import content, stands at 4.5%, at the top of the range of underlying inflation measures that we monitor. This measure has also been found to have good leading indicator properties⁶.

These pressures largely reflect robust wage growth as the catch-up process continues, as well as a tight labour market that has so far been resilient to a slowing economy. Employment grew by two million cumulatively during

2023, even as the economy stagnated, while firms continue to hoard labour. This pattern is mechanically lowering labour productivity and pushing up unit labour costs.

At this stage, it is difficult to assess whether these price pressures simply reflect the lag in wages and services prices and the procyclical nature of productivity, or whether they signal persistent inflationary pressures.

So, although we have made significant progress in all three of our framework criteria, we are not yet sufficiently confident that we are on a sustainable path towards our inflation target.

Building sufficient confidence to dial back policy

So the essential question is: what do we need to see to become sufficiently confident to start dialling back our restrictive policy stance? Put simply, we need to move further along the disinflationary path. And there are three domestic factors that will be decisive to ensuring that the inflation path evolves as we project.

The first of these is wage growth. Our forecast sees nominal wages slowing to 3% over the next three years, allowing real wages to fully catch up to pre-pandemic levels over the projection horizon, also including productivity gains⁷.

But with the unemployment rate expected to remain very low at 6.6%, this wage path cannot be taken for granted. Sensitivity analysis by ECB staff shows that if there were an earlier full catch-up by the end of this year, inflation would rise to 3% in 2025 and only fall to 2.5% in 2026⁸.

The second is profit margins. The compression of profit margins has allowed wages to catch up without further accelerating inflation. Unit profits accounted for more than 50% of the GDP deflator in the last quarter of 2022 but this figure fell to just 20% a year later.

But our sensitivity analysis shows that, if firms were to regain pricing power as the economy recovers and profit margins were to rise by an accumulated 1 percentage point more than we project until the end of 2026, inflation would be 2.7% in 2025 and 2.4% in 2026.

The third factor is productivity growth. We expect that a pick-up in demand, if accommodated by fully utilising hoarded labour, will lead to rising productivity growth and falling unit labour costs. We project labour productivity growth of 0.1% this year before it rises to 1.2% in 2025 and 2026. But the path of inflation could be different if, in a new geopolitical environment, productivity losses for European firms turn out to be partly structural.

Given the delays with which these data become available, we cannot wait until we have all the relevant information. To do so could risk being too late in adjusting policy. But in the coming months, we expect to have two important pieces of evidence that could raise our confidence level sufficiently for a first policy move.

First, we will have more data to confirm whether wages are indeed growing in a way that is compatible with inflation reaching our target sustainably by mid-2025.

The latest data point in this direction. Growth in compensation per employee edged down to 4.6% in the fourth quarter of last year – slightly below our March projection – from 5.1% in the third quarter. Negotiated wage growth, which accounts for the lion's share of compensation per employee growth, also decreased from 4.7% to 4.5% in the fourth quarter.

Similarly, the ECB's forward-looking wage tracker, which anticipates the development of negotiated wage growth in the euro area, is showing early signs that pressure is easing. Average wage growth in 2024 for all existing wage contracts⁹ fell from 4.4% at the time of our January Governing Council meeting to 4.2% at the time of our meeting in March.

The coming months will help us form an even clearer picture. We will receive data on negotiated wage growth in the first quarter of this year at the end of May. And many wage negotiations are currently taking place in large sectors, the outcome of which will be entered into our wage tracker as soon as the negotiations are concluded.

Employees whose contracts ran out last year and have not been renewed, or will run out by March 2024, account for around one-third of those in our wage tracker.

Second, by June we will have a new set of projections that will confirm whether the inflation path we foresaw in our March forecast remains valid. These projections will also implicitly give us more insight into the path of underlying inflation.

We will have more visibility on the strength of the recovery and the likely direction of the labour market, and therefore on the consequences for wages, profits and productivity.

In addition, we will have had a longer window to assess whether inflation data continue to fall broadly in line with our projections. If they do, we can be more confident that our models are now better accurately capturing inflation dynamics.

And this confirmation will be particularly important for the more persistent components, such as services, so that we can trust these components will continue to decline in keeping with their typical lagging pattern.

If these data reveal a sufficient degree of alignment between the path of underlying inflation and our projections, and assuming transmission remains strong, we will be able to move into the dialling back phase of our policy cycle and make policy less restrictive.

But thereafter, domestic price pressures will still be visible. We expect services inflation, for example, to remain elevated for most of this year. So, there will be a period ahead where we need to confirm on an ongoing basis that the incoming data supports our inflation outlook.

This has two important implications for the policy path ahead. First, our decisions will have to remain data dependent and meeting-by-meeting, responding to new information as it comes in. This implies that, even after the first rate cut, we cannot pre-commit to a particular rate path.

Second, our policy framework will remain important to process the incoming data and calibrate the appropriate policy stance. At the same time, the relative weights assigned to the three criteria will have to be regularly examined.

Conclusion

I said after our last Governing Council meeting that, when it comes to the data that is relevant for our policy decisions, we will know a bit more by April and a lot more by June. I hope that my remarks today help you to better understand our analysis and logic.

In the coming months, we will receive more data, which will help us to assess whether we are sufficiently confident in the path ahead to move to the next phase of our policy cycle. ■

Christine Lagarde is President of the European Central Bank

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This article is based on a [speech](#) delivered at The ECB and its Watchers XXIV Conference, organised by the Institute for Monetary and Financial Stability, Goethe University, Frankfurt am Main, 20 March 2024.

Seizing leadership in the net zero economy

The EU is at a crossroads. Linda Kalcher and Neil Makaroff discuss if the European Union will lead the charge in the green economy or trail behind its global competitors in the US and China

The European Union stands at a pivotal juncture in its industrial history. As the continent prepares to advance its economic trajectory through the next phase of the European Green Deal, it faces a critical question: Will it lead the charge in the green economy or trail behind its global competitors in the US and China?

The European Green Deal as a basis for modernisation

The initial phase of the Green Deal helped Europe navigate through the aftermath of COVID-19 and the energy insecurities following Russia's war on Ukraine. The policies adopted in the last five years are delivering results: renewable deployment is booming at an unprecedented scale.

In 2023, a total of 56 gigawatts (GW) of solar and 17 GW of wind capacity were added, marking an unprecedented pace of renewable deployment. For the first time, wind power generation surpassed gas power, significantly enhancing energy security and reducing reliance on imported fuels.

Progress is also evident with electric vehicles (EVs) and heat pumps, leading to the emergence of new industries and jobs. The Hauts-de-France region, for example, is becoming a significant battery manufacturing hub, generating 20,000 jobs and contributing to the EU's goal of producing 90% of its batteries domestically by 2030.

Similarly, the regions of Silesia, northern Czechia and Slovakia are emerging as significant centres for heat pump manufacturing, which is crucial for reducing dependency on imported heat pumps and revitalising local economies. These regions are witnessing job creation and investment inflows that are setting a template for others to follow.

The European Green Deal is not just an environmental or energy initiative; it is a comprehensive modernisation agenda with concrete results: it has laid a robust foundation for Europe's energy transition, cutting imports of oil and gas by one third by 2030 and making [electricity more affordable](#).

The 27 EU countries are achieving significant milestones in renewable energy deployment, enhancing energy security by cutting fossil fuel imports, and delivering socio-economic benefits. These early successes are setting the stage for a prosperous and competitive future for the EU - but the job is not done yet.

The time for decisive action is now; Europe must not hesitate. Investment cycles of companies are 10-15 years, so decisions taken in the next five years are vital for competitiveness and the path to climate neutrality

EU risks falling behind in the global race to net zero

As the world moves faster towards a climate neutral future, Europe finds itself at risk of falling behind. China's dominance in the production of key net zero technologies is evident, with 60% of mass production in strategic areas like solar photovoltaics and EV batteries controlled by China. 25% of electric vehicles and batteries and more than 90% of solar panels sold in Europe are [imported from China](#).

China pursues this out of economic and security interests, aiming to supply global markets. The United States is trying to catch up by rapidly scaling up its EV production through the Inflation Reduction Act (IRA). Meanwhile, energy prices in Europe are twice as high compared with China and the US, another impact on the competitiveness of the EU's industry.

The need for a holistic industrial strategy

To remain competitive, Europe needs a modern, holistic industrial strategy that combines decarbonisation goals with reindustrialisation. Such a strategy would ensure that Europe does not remain a passive consumer of imported zero-carbon technologies but rather, becomes a powerhouse of industrial innovation. Key components of this European industrial strategy should include:

Investing in a manufacturing base and creating jobs: building a robust manufacturing base is essential to ensuring the production of key net zero technologies within Europe. This investment will create millions of new jobs in the net zero industry, providing economic security and fostering regional development.

Using the single market with standards and creating lead markets: the next few years are key to leveraging the power of the single market through the implementation of stringent standards and lead markets for green products. This will encourage the use of domestically-produced clean technologies and materials, driving demand and investment in European-made products.

Decarbonising the existing industry: transforming the current industrial base to adopt low-carbon technologies is crucial. This involves producing green steel, chemical and glass, increasing energy efficiency and promoting the use of renewable energy sources. Decarbonising existing industries will reduce reliance on fossil fuels, enhance resilience to energy price volatility and ensure long-term competitiveness in the global market.

Such a comprehensive industrial strategy will not only help Europe catch up in the global race for zero-carbon technologies but also establish it as a leader in clean industrial practices.

Long-term vision as the compass for action

Defining the direction starts with the 90% climate target as proposed by the European Commission. This target is the cornerstone of a European Industrial Strategy, planning the decarbonisation of the economic base and identifying necessary net zero industries.

Strategic Perspectives' latest report, *Forging Economic Security and Cohesion in the EU* (2024), shows that cutting net greenhouse gas emissions by 90% by 2040 addresses environmental concerns and drives economic and industrial transformation. Key to this goal is shifting to renewable energy, with plans to electrify half of the EU economy, decarbonise the electricity sector by 2037, phase-out coal by 2030 and achieve 80% renewable electricity by 2040, requiring 70 GW of new renewable capacity annually.

The economic and security benefits of reaching the 2040 climate target are substantial. By 2035, decarbonising the power sector is expected to reduce electricity prices by 12% and household energy bills by two-thirds, potentially saving European households approximately €449 billion by 2040.

This transition will enhance the competitiveness of European industries while also strengthening the EU's energy independence and reducing its exposure to fossil fuel price volatility and geopolitical risks. The projected savings of up to €856 billion in fossil fuel imports between 2025 and 2040 underscore the economic advantages of this shift.

A comprehensive European Industrial Strategy is essential to complement the Green Deal. It can integrate political commitment, adequate funding and targeted investments to modernise the industrial base. This strategy can create a unified European value chain, support reindustrialisation in transitioning regions and generate new jobs in net zero industries by 2040. This approach can ensure the EU's competitiveness globally and enhance economic resilience and cohesion across member states.

Investing in building net zero industries and value chains

Europe has maintained a strong share in wind power manufacturing and heat pumps, with domestic production covering 85% and 73% of market demand, respectively.

However, the European wind industry faces challenges due to value chain disruptions and inflation, leading to job losses and a weakened business case.

A European Industrial Strategy is an opportunity to also create net zero value chains. For example, currently, lithium extracted in Portugal is exported to China to be refined and then imported back in Europe in the form of a battery.

A pan-European Industrial Strategy would enable strategic partnerships across the continent, such as linking France's burgeoning battery industry with lithium resources in Portugal and manufacturing capabilities in Spain. These alliances are crucial for developing a resilient and integrated European supply chain, from the material to the technology and recycling.

This has the potential to reindustrialise regions and create additional jobs. Our latest report shows that, with a European Industrial Strategy, 1.6 million additional green jobs can be created in manufacturing by 2035, with a total of 2.1 million by 2040.

This reindustrialisation can help regions in transition, such as those affected by the decline of traditional industries, by providing new economic opportunities and employment security.

A single market fitted to net zero to support the demand

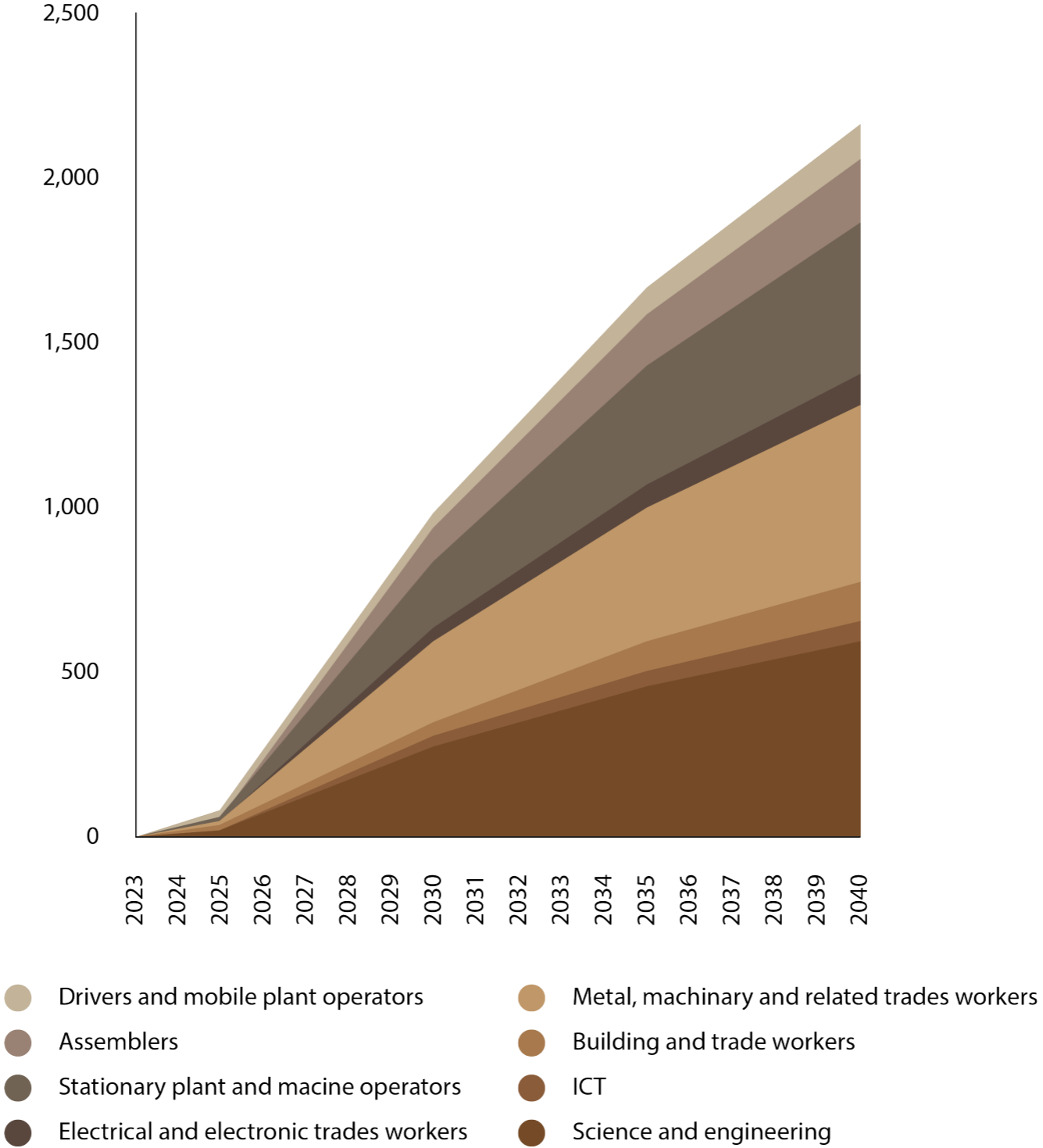
To support the demand for net zero technologies and materials, the EU could adapt its single market by setting high standards, creating lead markets and leveraging public procurement. These measures aim to reduce dependence on technology and fossil fuel imports, ensuring a resilient supply chain and fostering economic security.

Establishing rigorous standards and creating lead markets is crucial for competitiveness. By defining 'green' materials and setting quotas, ie. for green steel in key industries such as automotive and wind power, the EU can enhance innovation and predictability for manufacturers. This approach supports early adoption of green practices and drives the transition to a net zero economy.

Public procurement plays a pivotal role in boosting the market for EU-made green products. Including sustainability criteria in public tenders can drive demand for innovative technologies. With over 14% of gross domestic product (GDP), public procurement helps industries adopt new standards early, supporting local manufacturers and aligning public spending with environmental goals. Enhancing domestic manufacturing and the circular economy could save the EU billions annually in technology and material imports by 2040.

Figure 1. New jobs created in the net zero industry under an industrial strategy (in thousands of jobs)

www.worldcommercereview.com



Abundant and affordable zero-emissions electricity to strengthen competitiveness

The ongoing energy crisis exacerbated by geopolitical tensions underscores the importance of energy security. The EU imported €640 billion in fossil fuels in 2022, and approximately €375 billion in 2023, even with reduced prices. Energy prices remain a critical issue, being significantly higher in Europe compared to China and the US, which pressures businesses alike.

Achieving abundant and affordable zero-emission electricity is crucial for strengthening Europe's competitiveness. The EU's current dependence on fossil fuels makes its economy vulnerable to price shocks. Electrifying the industry is essential to make it less vulnerable to international energy markets and restore competitiveness with China and the US.

Investments to make Europe's industry thrive

To prevent deepening economic disparities and a fragmented single market, it is crucial to avoid a two-speed Europe where some countries advance faster than others due to differing fiscal capacities.

A new financial architecture should incorporate better coordination of national investments and the establishment of a European Green Deal Investment Fund that also strengthens cohesion. This fund would facilitate common investments into the transition, particularly in countries with more fiscal constraints.

This approach is especially important as the end of the NextGenerationEU program will reduce European investments in climate action by €35 billion per year from 2026.

By fostering a unified approach and ensuring all regions can remain prosperous and competitive, the EU can maintain cohesion and economic security while achieving its climate goals. To help Europe's industry thrive, substantial investments are necessary.

Our report highlights that cumulative investments of €668 billion between 2023 and 2040 could generate €233 billion of new economic activity in industrial sectors, boosting the productivity of the economy by 10%. This new financial architecture should include better coordination of national investments and the establishment of a European Green Deal Investment Fund to support common investments into the transition, especially in countries with more fiscal constraints.

By ensuring a unified and pragmatic investment strategy, the EU can prevent a fragmented market, promote balanced economic growth and achieve its ambitious climate targets.

Europe's path forward

Europe has the resources, the expertise and the economic framework to lead the world in zero-carbon technology and industrial innovation. By investing in a strategic, continent-wide industrial overhaul, Europe can secure a prosperous future and establish itself as a leader in the global zero-carbon economy.

The time for decisive action is now; Europe must not hesitate. Investment cycles of companies are 10-15 years, so decisions taken in the next five years are vital for competitiveness and the path to climate neutrality. The upcoming EU elections and strategic decisions from EU institutions will determine whether Europe leads or lags in the global shift towards a zero-carbon future. ■

Linda Kalcher and Neil Makaroff are respectively Executive Director and Director of Strategic Perspectives



“Know thyself”

Failure to meet the Paris climate goals impact on central banks' work, argues Frank Elderson. To avoid long-term policy mistakes, policymakers must address the resulting structural changes

For centuries the oracle of Delphi guided those seeking advice on what the future might hold¹. Perhaps the most famous prophecy originating here from the Temple of Apollo is the one delivered during the Ancient Greek era to Croesus, the King of Lydia. When he consulted the oracle about going to war with Persia, he was told that if he were to attack, *“a great empire would fall.”*

Emboldened by this apparent foresight, King Croesus went to war. And an empire did indeed fall. But it was the Lydians, not the Persians, who were defeated. The oracle was right. Yet King Croesus had overlooked the considerable room for interpretation that the prophecy allowed, with significant implications for his assessment of the outlook and the consequences of his decisions.

Today, policymakers count not on prophecies and oracles but on facts and science when assessing the outlook so they can make informed decisions. But while facts and science leave far less room for interpretation and uncertainty than ancient prophecies, they cannot eliminate it entirely.

The scientific method requires established knowledge to be scrutinised and reviewed, especially – though certainly not exclusively – knowledge that pushes the boundaries of modern science. So science-based models that are used to describe what happens in the real world need to be updated regularly, in terms of both their structure and their parameters.

And we have to acknowledge that these models are subject to uncertainty, including statistical, measurement and policy uncertainty. These caveats are relevant whenever we use these models to describe what has happened in the past, and they are especially relevant when assessing how present day knowledge is used to project an outlook for the future.

At the same time, policy must remain robust in the face of this uncertainty and build on what is scientifically established. Policymakers need to identify and spell out those questions that, if resolved, would reduce uncertainty and increase the level of confidence with which decisions are taken.

Analysis by the ECB and other central banks and supervisors repeatedly shows that, from an economic perspective, an orderly transition is by far preferable to alternative scenarios of doing nothing or doing too little too late

I will discuss how the prevailing evidence from climate and nature science can inform the actions of public authorities, even those that are not responsible for climate and nature policy, such as central banks and supervisors². These public authorities – just like companies and individuals – are increasingly taking decisions whose outcomes will be subject to the tangible consequences of the ongoing climate and nature crises.

In fact, in a ground-breaking ruling earlier this week, the European Court of Human Rights, explicitly referring to *“the compelling scientific advice provided, in particular, by the Intergovernmental Panel on Climate Change”*, established that States *“need to put in place the necessary regulations and measures aimed at preventing an increase in greenhouse gas concentrations in the Earth’s atmosphere and a rise in global average temperature beyond levels capable of producing serious and irreversible adverse effects on human rights.”*³

So how can we ensure that decisions taken today reflect what we know about climate science while remaining robust in the face of uncertainty?

Fundamental challenges of failing to meet the goals of the Paris Agreement

Currently, the best assessment by climate scientists tells us that the world is not on a path to limit the increase in the average global temperature to 1.5 degrees Celsius above pre-industrial levels – the overarching goal of the Paris Agreement. We are not even on course to limit the increase to 2 degrees.

In fact, last November the UN Emissions Gap Report concluded that the world is on track for an average increase of 2.9 degrees, and even that will only be achieved if all government commitments to mitigation measures are implemented⁴.

In other words, without a full and prompt implementation of these commitments, we will see an increase of even more than 2.9 degrees. In any case – acknowledging the uncertainty – the world is currently heading for a temperature rise far above the Paris Agreement goals.

This raises a number of critical challenges for maintaining wellbeing as we know it. These go far beyond the economic challenges that may emerge and will be particularly relevant for central banks and supervisors.

In a recent report, the European Environment Agency sent a dire message about climate risks, pointing out that *“several climate risks have already reached critical levels”* and observing that *“[i]f decisive action is not taken now, most climate risks could reach critical or catastrophic levels by the end of this century.”*⁵

Global heating will have an impact on food, water and energy security and the health of the general population, and these effects will be aggravated by ecosystem degradation, which is itself worsened by global heating. Moreover, increasing climate and natural hazards can disrupt critical infrastructure, putting people’s livelihoods and even their basic needs at risk.

There may also be second-round effects that compound the direct impact of an increase in climate and natural hazards. One example of this would be changes in migration flows, which like other such second-round effects are generally not yet accounted for in models of the impact of climate change and nature degradation. But the more severe the climate scenario, the more likely it is that these flows will increase, and the greater the impact these increasing flows will have⁶.

In addition, the Intergovernmental Panel on Climate Change (IPCC) has been increasingly emphasising the risks of various tipping points. These are critical thresholds that, when breached, will lead to large, accelerating and irreversible changes to our climate system.

According to the most recent IPCC assessment report from 2021, the risk of reaching these tipping points is already assessed as being high if the average global temperature increase amounts to between 1.5 and 2.5 degrees. And it is assessed as very high if global temperatures increase by 2.5 to 4 degrees⁷.

Climate science can provide indications of potential tipping points and what their consequences might be, like the melting of the Greenland ice sheet and the impact it would have on global sea levels. There is, however, no scientific consensus yet on the systemic changes that might occur after these tipping points are reached.

Further research is therefore urgently required here, especially in light of the current trajectory for global heating⁸. Over the last 12 months, the global average temperature was already 1.5 degrees above pre-industrial levels.

Structural economic challenges

Let me now turn to the implications for the global economy if temperatures increase by significantly more than 2 degrees. The structural economic consequences will be profound, with impacts on both the supply and demand sides of the economy.

First, resources will have to be dedicated to protecting citizens and society from increased climate and natural hazards like wildfires, droughts and floods.

Second, to the extent that the increase in hazards can no longer be avoided, the economy will need to cater for the critical needs that the European Environment Agency identifies as being at risk. Specifically, maintaining adequate food production, water availability and health care will require substantially more resources than those sectors currently receive.

Third, beyond catering for these critical needs, the economy will undergo further structural transformation as both preferences and production possibilities change. Tourism is a case in point, with destinations that are currently popular no longer being similarly in demand or even accessible in the future.

Another example is international trade, which may be forced to redevelop as existing routes and ports become unavailable and others open up. And there will also be a reallocation between sectors, with some losing out while others benefit, much like we have seen following the pandemic and the energy crisis.

Fourth, the economy needs to be made resilient to the increase in climate and natural hazards. The existing capital stock – including people's homes – will need to be upgraded and adapted, with all the increases in structural costs this entails. Achieving such resilience may even require physically relocating part of the capital stock to avoid proximity to areas that will be heavily exposed to hazards.

Any capital stock that is not made resilient to hazards will most likely see its economic lifespan shorten significantly. This will take the form of higher depreciation rates, which imply greater financial risks for anyone with exposures to the capital stock.

It is particularly noteworthy that investments that are currently being made to green the capital stock may not be immune to this effect. For example, a hydroelectric power plant may become obsolete prematurely if a river runs dry or changes course.

Resilience to the more disastrous climate and nature outcomes that are the consequence of failing to meet the Paris Agreement goals should, therefore, feature prominently in any decisions related to mitigation investment that are being taken today.

A key challenge for economic policymakers will be to ensure that the economy is suitably prepared to undergo these structural transformations. If it is not, there is a significant risk that economic and financial factors will actually exacerbate the critical challenges we will face in a world that overshoots the goals of the Paris Agreement.

Against this backdrop, it will be crucial for economic policymakers to identify potential barriers to effective and efficient adaptation. First, a failure to coordinate may lead to investment being misallocated. Some investments may not materialise at all if the private sector fails to consider the benefits for society.

And others may materialise but only inefficiently, for example if investment in cooling homes and offices takes place at the level of individual households and firms.

Second, structural adjustment in an economy requires the right combination of flexibility, education and social safety nets to navigate an inclusive and effective adaptation process.

Third, financial bottlenecks may emerge. Increased uncertainty due to potential climate and natural hazards may lead to an increase in risk premia, which in turn could hold back investment. And this situation could be exacerbated if it is no longer possible to obtain insurance against certain risks – or if it is only possible at a prohibitive cost⁹.

Besides the greater frequency and impact of hazards, uninsurable risks occur when hazards become systemic – in other words, when a hazard would affect the entire population at once if it were to materialise. And when such risks are uninsurable, individuals and firms – as well as the financial institutions that finance them – need greater loss-absorbing capacity themselves. This self-insurance will mean that – all other things being equal – the aggregate propensity to invest decreases further.

Bottlenecks in the flow of finance that reduce investment or that lead to misallocation can be mitigated with a sound banking system and well-developed capital markets that bolster transparency and ensures climate- and nature-related risks are properly priced.

Against this backdrop, there is an urgent need to complete the banking union and the capital markets union – as the ECB has previously called for – irrespective of the climate and nature scenario that ultimately materialises.

In areas where private investment bottlenecks cannot be resolved, governments may need to step in with increased public investment and safety nets. This would give rise to significant government contingent liabilities that are not yet appropriately reflected in credit ratings or in institutional economic governance frameworks.

The relevance for central banks and supervisors

Many of the challenges I have mentioned – both the critical and the structural economic challenges – fall to policymakers in other areas, rather than central banks and supervisors. But the challenges presented and the policy choices that are taken in response will have a bearing on the environment in which central banks and supervisors pursue their mandates to maintain price stability and ensure the safety and soundness of banks.

First, our objectives are even more important in a world that is facing increased climate and natural hazards. Price stability and sound banks provide an anchor that makes an economy – and therefore a society – more resilient to shocks. The more frequent and intensive the shocks, the more important it becomes that the anchor doesn't break.

Second, while our tasks become more important when the world around us becomes more daunting, maintaining price stability and a sound banking sector becomes more complicated. And this is not just because shocks are more frequent and more intense. It also becomes more complicated to assess the type of shock that is hitting the

economy, yet this is crucial to gauging the potential risk to price stability or to the soundness of banks, as well as the appropriate policy response.

It could raise questions about whether climate and natural hazards can be fully captured in the traditional categorisation of demand, supply and financial shocks that are inherent in most macroeconomic models. For example, my fellow ECB Executive Board member Isabel Schnabel has suggested thinking about the impact of climate change on inflation using concepts that she has referred to as ‘climateflation’, ‘fossilflation’ and ‘greenflation’¹⁰.

The Basel Committee on Banking Supervision, meanwhile, has already established that climate-related risks translate into the traditional types of risk that banks consider¹¹. This covers credit risk, liquidity risk, market risk and operational risk, including litigation risk¹².

However, the exact mechanisms of mapping actual hazards to risks still need to be analysed further to fully capture climate-related factors in quantifiable regulatory and supervisory requirements.

Third, climate and natural hazards limit the productive capacity of the economy. Some of the consequences may eventually fade – although they may well persist for quite some time – for example if supply chains are disrupted as a result of hazards materialising. Others may be permanent, for example if nature providing critical services – including land use and fisheries – becomes degraded.

In both cases, the risk of the economy running into capacity constraints would be greater. Therefore, to properly assess the state of the economy and identify risks, central banks and supervisors need to further deepen their understanding of the supply side of the economy, just as we had to do after the pandemic and the energy crisis.

This also means that we need to extend the horizon of our analyses well beyond the typical horizon considered today. Climate science gives us a window into the rest of this century. What we can see through this window should be taken seriously, including by central banks and supervisors as we identify and assess risks in the pursuit of our mandates. The time to think seriously about the long term is now.

Fourth, the combination of heightened uncertainty and a greater need for self-insurance could lead to an increase in the propensity to save in the private sector. This could create space for the investment that is so urgently needed and – in the absence of increased savings – would lead to an increase in the equilibrium real interest rate¹³.

At the same time, if owing to coordination failures the increased savings are not channelled towards providing the investment needed, the equilibrium real rate of interest would instead be depressed. As this equilibrium rate is the interest rate that prevails when all shocks to the economy have dissipated and monetary policy is neither accommodative nor restrictive, it is an important yardstick for central banks. Thus, for monetary policy, understanding which of these effects ultimately dominates will be key.

Fifth, increasing financial risks arising from the climate and nature crises can impair the soundness of financial institutions and the stability of the financial system as a whole. Should these risks materialise – despite all our efforts to mitigate them – the transmission of our monetary policy could be affected.

Monetary policy decisions would be transmitted through the financial system and the economy in a less orderly and less predictable manner, potentially making it more difficult for us to achieve our price stability objective.

More generally, the effectiveness and efficiency of our policies benefit from well-functioning markets. This holds true in terms of both our ability to maintain price stability and the need to avoid the risk of our monetary policy impulses unduly contributing to a misallocation of resources.

Concluding remarks

The Temple of Apollo in Delphi famously bore the inscription “*Know thyself*” – a maxim that is often understood to mean “*know your limits.*”

Know what you know and know what you don’t know – this is what I have sought to convey to you.

And act upon that knowledge in a way that is robust in the face of known and unknown uncertainties, to avoid making avoidable mistakes like that of King Croesus after he consulted the oracle of Delphi. This includes identifying and seeking answers to questions that reduce uncertainty and increase the scope of ‘no-regret’ policy actions.

This will require policymakers to engage with stakeholders beyond their own fields of expertise – just like the Bank of Greece is doing through the interdisciplinary Climate Change Impacts Study Committee, which recently announced the preliminary results of analytical work on the economic, social and environmental impacts of climate change in Greece¹⁴.

Experts from all disciplines – including climate and nature scientists, biologists, economists, legal experts and sociologists, to name just a few – will need to work closely together in responding to the multifaceted challenges ahead. If ever there was an urgent need to pool knowledge and draw on different fields of expertise, it is now.

Let me be clear: my remarks are by no means a signal that we should throw in the towel on mitigation. Quite the opposite. I hope that I have been able to show you why, in light of the prevailing climate science, no effort should be spared in working towards the goals of the Paris Agreement.

The European Climate Law requires it, and the European Court of Human Rights has ruled that governments that fail to meet their climate commitments are violating human rights. Analysis by the ECB and other central banks and supervisors repeatedly shows that, from an economic perspective, an orderly transition is by far preferable to alternative scenarios of doing nothing or doing too little too late¹⁵.

That said, even though climate and nature policymakers are under a legal obligation to deliver on the goals of the Paris Agreement and even if they have committed to achieving these objectives, they still have a duty to prepare for risks that lie ahead as the entire world needs to live up to its obligations – and it is not a given that it will – and critical thresholds may have already been surpassed.

The duty to prepare for these risks also holds for central banks and supervisors in the pursuit of their mandates. We must both unwaveringly strive for the best and diligently prepare for what climate science tells us lies in store.

It is not a Delphic prophecy that is calling for action. It is facts and science. ■

Frank Elderson is a Member of the Executive Board and Vice-Chair of the Supervisory Board of the European Central Bank

Endnotes

1. To my knowledge, there are at least three instances of central banks and supervisory authorities paying tribute to the ancient oracle. The semi-structural macroeconomic model of the Dutch economy that De Nederlandsche Bank uses for its projections is named DELFI. In ECB Banking Supervision we have developed a tool named Delphi that integrates market indicators and information from the media to better understand risk developments affecting banks in real time. And central banks have been described as giving “Delphic” forward guidance when communicating about how they intend to adjust policy in relation to incoming data.
2. I have emphasised in other speeches that central banks are not climate and nature policymakers, but climate and nature policy takers. See, for example, Elderson, F (2023), [“Policymakers as policy takers – accounting for climate-related and environmental factors in banking supervision and monetary policy”](#), speech at the Peterson Institute for International Economics, 21 April.
3. European Court of Human Rights (2024), [“Judgment Verein KlimaSeniorinnen Schweiz and Others v. Switzerland – Violations of the European Convention for failing to implement sufficient measures to combat climate change”](#), press release, 9 April.
4. United Nations Environment Programme (2023), [Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions \(again\)](#).
5. European Environment Agency (2024), [European climate risk assessment](#).
6. According to the World Bank, climate change could contribute to the movement of 216 million people within their own countries by 2050, unless concrete climate and inclusive development actions are taken. See Clement, V et al (2021), [Groundswell Part 2: Acting on Internal Climate Migration](#), World Bank Group, Washington, D.C.
7. Intergovernmental Panel on Climate Change (2021), [Climate Change 2021 – The Physical Science Basis](#).
8. The Central Banks and Supervisors Network for Greening the Financial System has previously developed scenarios to assess how economies might look on different climate policy paths. In future work it will prioritise the inclusion of non-linear elements – like climate tipping points – in its models (see Aerts, S, Spaggiari, M and Stracca, L (2023), [“Climate](#)

scenarios: procrastination comes at high cost, The ECB Blog, 4 December). For it to achieve this, climate and nature science will be crucial in advancing its understanding of tipping points.

9. Together with EIOPA the ECB has issued a discussion paper that outlines policy options to promote climate catastrophe insurance that could mitigate the effect of reduced insurability, see ECB and EIOPA (2023), *“Policy options to reduce the climate insurance protection gap”*, Discussion Paper, April.

10. Schnabel, I (2022), *“A new age of energy inflation: climateflation, fossilflation and greenflation”*, speech at a panel on *“Monetary Policy and Climate Change”* at The ECB and its Watchers XXII Conference, 17 March.

11. Basel Committee on Banking Supervision (2021), *Climate-related risk drivers and their transmission channels*, April.

12. On litigation risk, see Elderson, F (2023), *““Come hell or high water”: addressing the risks of climate and environment-related litigation for the banking sector”*, speech at the ECB Legal Conference, 4 September.

13. See, for example, Schnabel, I (2024), *“R(ising) star?”*, speech at The ECB and its Watchers XXIV Conference session on *Geopolitics and Structural Change: Implications for Real Activity, Inflation and Monetary Policy*, 20 March.

14. Bank of Greece (2023), *“Preliminary results of the studies on the vulnerability assessment and the impact of climate change in Greece”*, 15 December.

15. Emambakhsh, T et al (2023), *“The Road to Paris: stress testing the transition towards a net-zero economy”*, Occasional Paper Series, No 328, ECB

This article is based on a *keynote speech* delivered at the Delphi Economic Forum IX, Delphi, 12 April 2024.

Heat stress at work

There are significant consequences of climate change for public health. Aude Cefaliello argues that intense heat is not just a hot topic but a political emergency

Climate change is creating new risks to which workers are exposed in unequal fashion. The first sectors to feel the impact of extreme temperatures, such as agriculture or construction, are also those with extremely precarious workforces. This impact will be complex, adversely affecting physical and mental health in both direct and indirect ways.

Applying the general principles of prevention to heat stress is possible but it will require a thorough overhaul of how work is organised and the adoption of European legislation that lays down a minimum protective threshold for all workers in Europe.

In 2022, 62,000 deaths in Europe were attributed to the summer heat. This figure, likely an underestimate, is only one among the many examples illustrating a growing challenge that we must address, namely the significant consequences of climate change for public health and the world of work.

Year after year, we have 'record temperatures', pushing us to the realisation that the 'historic' heatwaves of 20 years past have now become the new normal. The European Environment Agency forecasts a steady rise in average temperatures as well as increasingly frequent and intense heatwaves.

Each summer, workers die because of the intense heat, but they are also at risk from other aspects of climate change and ever more extreme weather conditions (flooding, storms, wildfires, etc.). The time for 'crisis management' is over; we must rethink how work is organised to ensure that workers do not lose their lives while they earn their living.

The change in our means of production and organisation is all the more important and urgent because climate change will not impact workers equally. If we do nothing, then the working conditions in sectors where workers are

already exposed to physical danger, such as agriculture, construction or the emergency services, will deteriorate further.

According to Eurofound, 23% of workers in the European Union are exposed to high temperatures for at least a quarter of their working hours; that proportion climbs to 36% in agriculture and industry, and to 38% in construction. These sectors are also known for having precarious working conditions and recruiting more vulnerable workers (temporary work and employment of foreign nationals).

In the absence of specific legislation on heat stress, there is no guarantee that employers will abide by the recommendations

If (legal) safeguards are not sufficiently robust, these workers are likely to be the next victims of the heatwaves which, in the words of Eric Klinenberg, are 'silent, invisible killers of silent, invisible people'.

The multi-faceted impact of global warming on workers' health

Climate change will affect all workers in all sectors in all countries, but its impact will not necessarily be the same or have the same intensity across the board. First, there are key differences in people's working environments.

The European Agency for Safety and Health at Work (EU-OSHA) stresses that outside workers are most vulnerable to climate change, although its repercussions will extend to all sectors, in particular the emergency services, water supply, energy, transport and construction. The frequency and nature of climate risks will also not be the same for everyone.

Outside workers (including those working in construction, agriculture or maintenance of public spaces) are most exposed to extreme climate conditions (intense heat, but also UV radiation), whereas those working in the emergency, rescue and cleaning/maintenance services often find themselves in high-risk situations because of climate crises such as floods, landslides, storms, droughts and wildfires. Here, a lack of structural resources could aggravate the situation given that climate emergencies will increase the need for this kind of assistance.

When it comes to heat, indoor workers whose jobs require physical effort (eg. in warehouses or on production lines) will also be affected. Rises in temperature and humidity increase the risks involved in these kinds of jobs. The impact on health can be immediate, ranging from cramp and oedema to loss of consciousness and even death.

However, studies also point to the long-term risk of exposure to intense heat and its potential to cause heart, kidney or liver damage. The negative consequences of heat exposure may also have more long-term effects in the form of chronic tiredness, sleep disturbances and temporary infertility (especially for men).

Where workers' mental health is concerned, the INRS (the French National Scientific Research Institute) and ANSES (the French Agency for Food, Environmental and Occupational Health and Safety) note the greater psychosocial risks associated with global warming. The mere fact that heat is tiring and poses an additional cognitive strain (that can cause irritability or even violence) is a risk to workers (tension and conflict) when interacting with colleagues and non-colleagues alike.

Cognitive fatigue also increases the risk of accidents at work, especially because it reduces concentration and can lead to woolly decision-making in the work environment (posing extreme danger when driving or operating machinery).

As EU-OSHA has stressed in its guidance on heat stress, published in 2023, heat has not only direct (short-term and long-term) but also indirect effects on workers, through the exacerbation of existing risks such as air pollution, self-heating materials, the occurrence of biological agents, and exposure to chemical substances¹.

Heat can also affect the application of certain OSH prevention measures, most notably the wearing of PPE, potentially even turning it into a risk itself.

OSH principles applied to heat stress prevention

Incorporating climate hazards into occupational risk assessments is emerging as a key issue in workers' safety in Europe. The need to adopt sector-appropriate preventive measures, which acknowledge that the impact of climate conditions depends on the type of work concerned, underlines the importance social partner involvement in this issue.

Where heat-related risks are concerned, EU-OSHA's recent guide shows that it is perfectly possible to implement a collective system of technical and organisational preventive measures within an individual organisation.

The principles already set down in the 1989 Framework Directive (Directive 89/391/EEC) on health and safety at work can also be applied to heat stress, for example the obligation of the employer to evaluate all workplace risks and to adopt (first collective then individual) preventive measures following an information and consultation process with the workers and/or their representatives.

Employers should evaluate the risks created by climate change, taking various factors into account, including a worker's protective clothing, age and health. For heat exposure, biological differences should also be taken into account, given that some studies note that women may be less heat-tolerant than men.

According to EU-OSHA, the application of the existing obligation to develop a comprehensive, consistent policy to prevent heat stress should lead to the implementation of heat action plans, an early warning system and the implementation of safe working practices.

Risk assessment should be followed by the introduction of a hierarchy of controls, perhaps including emergency procedures and a 'buddy' system. Working in isolation poses a considerable risk in itself given that it is very difficult for someone to assess their own heat tolerance and that, if an incident occurs, assistance from a third party is vital for administering first aid and raising the alarm with the emergency medical services.

Additionally, the information that workers should receive on the dangers of heat stress should include descriptions to help them recognise the symptoms of heat-related injuries and illnesses, measures to reduce the risk,

acclimatisation procedures and procedures to follow in the event of heat-related illness. However, in the absence of specific legislation on heat stress, there is no guarantee that employers will abide by the recommendations.

A legislative void

The other issue is that the measures recommended by EU-OSHA require the option for workers to adjust their time schedules and a needs-based reduction in labour intensity, regardless of economic pressures, which may require a larger workforce.

Currently, and especially in sectors with a vulnerable workforce, the reality of power differentials is obviously unlikely to lead workers to behave in a way that prioritises their health.

Consequently, in France, the sociologist Annie Thébaud-Mony, a specialist in occupational health, is advocating express reference to heat-related risks in the Labour Code, including changes to working schedules during periods of high temperatures. Nonetheless, no express provisions have yet been adopted, despite evidence of many heat-related health risks.

Despite this, some countries, such as Spain, have taken measures to reorganise work schedules during intense heat. In Greece, the guards working in the Acropolis have secured an adjustment to their time schedules that avoids their working in the afternoon during heatwaves. This flexibility is vital to protect workers' health but should apply across the board so that all sectors can benefit.

Legislation varies considerably from one country to another in Europe. In Spain, measures based on weather alerts are in place to prohibit outdoor working in periods of extreme heat. In Portugal, the temperature of a workplace must by law be between 18 and 22 degrees Celsius and have a specific humidity management system.

In the Belgian 'law on thermal environmental factors', targeted at both heat and cold, action is mandatory when the legal occupational exposure temperature limit is exceeded (according to the Wet Bulb Globe Temperature index, which strictly speaking considers not just temperature but also other elements like humidity and wind).

Although there are recommendations in Germany, there is no legal occupational exposure limit value on heat stress. The problem is that today's Berlin is tomorrow's Madrid. Legislation needs to be harmonised to provide a minimum protective threshold for all workers in Europe.

In this 'legislative void', national case law has begun to provide some answers regarding ad hoc protection for workers. In 2015 in France, roofers exercised their 'right to withdraw' in the event of serious, imminent heat-related danger and stopped working during a heatwave.

In Italy, a 2015 ruling found that where working conditions were unsafe or temperatures were 'prohibitive', workers have the right to stop working with no loss of earnings or danger of dismissal.

True worker protection requires a paradigm shift

Today, we face a political emergency. From a European legislative standpoint, there is a genuine difference between indoor jobs and outside jobs, with outdoor workers excluded from the protective scope of some directives.

The sectors most affected are also those where precariousness is highest; we are once again in danger of sweeping the risks these workers face under the carpet. We must resist the discourse and fatalistic narrative that says, in effect, that nothing can be done, that it's an 'occupational hazard', or all part of the job.

The fact that conditions will become increasingly extreme is unfortunately a reality for the coming years, but we have a choice as to how we are going to respond collectively and how we decide to protect (or let down) the workers concerned.

But ensuring that workers are genuinely protected means revising economic needs and objectives downwards. We must restore human beings to the heart of how work is organised. The current neoliberal momentum means that we cannot maintain production and also ensure workers' health.

In other words, workplaces must see either an increase in available resources or a reduction in the pressures of work. All the recommendations point in one direction: the best preventive measures require workers to be able to regulate their own hours and tasks so that they can alternate rest periods with work.

This means giving some autonomy back to workers; but that autonomy will only be genuine if it is exercised in an environment where economic pressures and power are controlled and attenuated.

It would be naïve to assume that workers will behave in a way that prioritises their own health and their colleagues' if doing so puts their jobs at risk. In view of climate change, we need to adopt measures that will enable workers to be heard, empowered, recognised and protected. ■

Aude Cefaliello is a Senior Researcher at the European Trade Union Institute (ETUI)

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Unlocking the power of ideas



The history of human progress has been defined by technological breakthroughs generated by ideas. Christine Lagarde argues we need the right conditions that allow them to reach their full potential

Tucked away in the Sterling Memorial Library in the heart of Yale's campus lie the papers of America's first diplomat, Benjamin Franklin. Franklin was many things – ambassador to France, scientist, inventor, writer and publisher, to name a few – but above all, he was a man of ideas. As a young man, Franklin understood the power of ideas.

“All our ideas are first admitted by the senses and imprinted on the brain, increasing in number by observation and experience,” he wrote. “There they become the subjects of the soul's action.”¹

By inspiring action, ideas can help us grow. This might be personal growth – a student's learning, say, allowing them to make the right decisions throughout their future career. But it holds at the societal level too: ideas help push our economies forward.

In recent decades, we had few barriers globally to the flow of ideas. Advanced economies shared their technologies with emerging ones, and emerging economies shared their cheaper input costs with us – the process we knew as 'globalisation'. But in recent years, the global economic order as we know it has been changing.

We now see that previously emerging economies are taking leadership in some advanced technologies. And we are seeing globalisation go into reverse, threatening access to the resources on which advanced technologies depend. So, how do we all prosper in this new world? I will argue that the key ingredient for our prosperity remains the same as ever: generating and sharing new ideas.

But history tells us that ideas can only drive growth if we first create the right conditions that allow them to reach their full potential – and if we are committed to breaking the bottlenecks that stand in their way. This is the challenge we all face today to thrive in this new world. And today, I will focus on what this challenge means for our economies and, in particular, for Europe.

The power of ideas across history

The history of human progress has been defined by technological breakthroughs generated by ideas. But ideas do not immediately translate into economic prosperity. Take Johannes Gutenberg's printing press – an ingenious device that combined metal prisms for moulding letters with an oil-based ink and techniques found in wine production².

What truly unlocks growth is when these three forces combine: when ideas translate into innovations, innovations diffuse into productivity growth, and our societies have the necessary ambition to remove any barriers that are in the way

By reducing the cost and increasing the speed at which books were produced, the printing press unleashed a communications technology that would revolutionise our world. In fact, an original Gutenberg bible is on display in the beautiful setting of the Beinecke Rare Book and Manuscript Library in Yale. But the printing press arrived at a time when literacy rates were still exceptionally low – around 9% in Gutenberg’s native Germany³.

Its ultimate benefits depended on rising literacy rates in the centuries that followed, with cheaper and more plentiful books also lowering the costs of learning. Countries that were quicker to embrace literacy reaped the gains in higher rates of economic growth and GDP per capita – a correlation that persists to this day⁴. In more recent centuries, we can identify three conditions that need to be in place for ideas to reach their full potential: translation, diffusion and ambition.

Translation means the ability to translate ideas into socially usable projects. And history has shown us that this ability depends on having the right economic ecosystems in key areas like finance and the supply of inputs. For example, until the turn of the 17th century, the ability to fund new ideas was severely limited by underdeveloped financial markets. One factor that helped change the game was the emergence of the modern joint-stock, limited-liability company around this time⁵.

Suddenly, large pools of capital could be raised to fund bold proposals, such as expanding global shipping routes from east to west, which facilitated supplies of inputs. Countries that embraced joint-stock companies tended to experience faster growth⁶.

If the right economic ecosystem infrastructures can facilitate ideas, the reverse is also true. The pioneering rollout of railroads across the US continent proved revolutionary in spurring the development of the country’s capital markets⁷.

But for ideas to be truly impactful at the macro level, there also needs to be diffusion. Technologies need to spread through an economy and become widely used. History suggests that a key factor in the diffusion of ideas is scale: that is, operating in a large, integrated market. Scale encourages firms to adopt new technologies, so that by expanding their production they can achieve lower unit costs.

The clearest example of the impact of scale is in the United States. While its constitution brought together thirteen disparate colonies, the country's economic trajectory would ultimately depend on how that constitution – in particular its Commerce Clause - was interpreted.

A pivotal moment occurred in 1824, when the Supreme Court's decision in *Gibbons v. Ogden* asserted the right of Congress to regulate interstate commerce and, in effect, to override state-granted monopolies that risked fragmenting the US market. This decision helped establish a truly nationwide economy and allowed the ideas of US entrepreneurs to spread and flourish. By several estimates, US GDP per capita at least doubled between 1800-20 and 1820-40⁸.

In many of these cases, however, change did not happen by itself. It happened because of the ambition of entrepreneurs, economists, jurists or policymakers, their courage in overcoming hurdles to progress, and their ability to inspire others to follow their vision. But the nature of this ambition always evolved with the times.

In the 1800s, remote states scattered across the United States needed visionary entrepreneurs like Cornelius Vanderbilt, whose railways helped unify the country's economy. But as railroad tycoons established monopolies that undermined the public good, it took the ambition of policymakers like Theodore Roosevelt to break them up and foster competition.

What truly unlocks growth is when these three forces combine: when ideas translate into innovations, innovations diffuse into productivity growth, and our societies have the necessary ambition to remove any barriers that are in the way.

The power of ideas today

This brings me to the present day. As our economies grow, the relative importance of the different forces that drive growth changes⁹. For emerging economies that are far away from the technological frontier, deploying first their labour and later capital can help them to catch up.

But once economies mature and become advanced, productivity increases are mostly what propels us forward. And productivity is above all about ideas.

Most advanced economies, however, have seen productivity decelerate for some time. This slowdown led to a debate in the 2010s between techno-pessimists, who believed that most groundbreaking ideas were behind us, and techno-optimists, who believed that we were on the cusp of a new technological revolution.

Developments in recent years suggest that the case for optimism was stronger. Just as in Gutenberg's time, new revolutionary technologies like artificial intelligence (AI) and robotics are on the verge of transforming our societies. One study finds that generative AI alone has the potential to add up to almost USD 4.5 trillion annually to the global economy, roughly 4% of global GDP¹⁰.

The good news for global productivity growth is that we see these new ideas flourishing across major economies, a direct legacy from the common ties that were crafted during the era of globalisation. And Europe, in contrast to what some may believe, is actually well placed to benefit from these ideas.

The European Union accounts for around one-fifth of the world's most-cited publications, patents, and research – despite making up less than 7% of the global population¹¹ – and this innovative activity includes key sectors such as AI and machine learning. According to one study, Europe draws in more AI talent than the United States, with over 120,000 active AI roles, and last year, Europe accounted for one-third of total early-stage capital invested in AI and machine learning across the two economies¹².

Our region also has many innovative companies in other high-tech sectors. Europe's manufacturing firms often operate at the global frontier, be it in producing photolithography machines for advanced chips or industrial robotics. In fact, Europe's share of the market for such robots is double that of China and more than thirtyfold that of the United States¹³.

And many of Europe's most successful companies are not even listed. Of the 2,700 'hidden champions' worldwide – that is, small and medium-sized enterprises that are global leaders in their niche markets – more than half are found in Germany, Austria and Switzerland¹⁴.

But as globalisation recedes and technological change accelerates, all economies are facing bottlenecks in transforming these ideas into sustained productivity growth. And these bottlenecks are in the same three areas that have been critical to unlocking the potential of ideas throughout history: translation, diffusion and ambition. So, the question we face is: how can we break these bottlenecks?

Breaking the bottlenecks

Translation

Let me start with the first bottleneck, translation. To translate new ideas into marketable projects, we need economic ecosystems that are suited to the specific requirements of today's technologies. We need financial systems that allow us to invest massively in innovative firms.

Sectors like AI, for example, need a lot of cash upfront to build up computing power and server capacity. According to industry leaders, the cost of training AI models is set to jump tenfold in the space of a year, and could soon rise to between USD 5 and 10 billion¹⁵.

And we need secure access to a wide range of natural resources. The International Energy Agency estimates that training a single AI model uses more electricity than 100 US households consume in an entire year¹⁶. And as we electrify our transport systems and invest in renewable energy technologies, global demand for rare earth elements may increase three to sevenfold between now and 2040¹⁷.

So, all our economies need to be proactive in ensuring that we have these ecosystems in place. But in Europe we face two specific challenges. First, we have a large financial sector, backed by high rates of saving from European households. But intermediation mainly takes place through bank lending rather than capital markets, which issue bonds and equities.

Bank lending works well for established companies that are relatively low risk and have generous collateral, such as our traditional manufacturing leaders. But it works less well for young, high-risk companies that typically drive radical innovation.

Innovative companies need access to ample risk capital, which requires a large venture capital sector that can back them until they go public. But the availability of risk capital is around ten times lower in Europe than in the United States¹⁸, meaning that even firms that find backing at the early stage have less support when they enter the growth stage. The average venture capital-backed company in the EU receives about five times less backing than its US peers over its life cycle¹⁹.

This gap often means that European entrepreneurs have to go overseas to get the financing they need – and sometimes their ideas go with them. And it is a key reason why, last year, Europe invested just USD 1.7 billion in generative AI compared with USD 23 billion of US venture capital and private equity²⁰.

Second, we are not endowed with significant natural resources in Europe, meaning that we depend heavily on imports²¹. And this dependency leaves us vulnerable in a less globalised world and a changing geopolitical landscape.

The brutal Russian invasion of Ukraine, which led to an almost complete shut-off of gas supplies to Europe, shows what is at stake. Even though we have successfully replaced Russia as a supplier, that process has left our firms at a notable cost disadvantage.

Before the pandemic, electricity costs for European firms were 1.7 times higher than those in the United States and 1.2 times as high as China. Now, that gap is 2.5 and 2.3 times respectively. In both cases, however, Europe is creating solutions in response to these constraints. As the former French President, Valéry Giscard d'Estaing, is reputed to have said, *"We may not have oil, but we have ideas."*

Where we can, we are acting to build the ecosystems we need internally. Europe's leaders have agreed to push forward with developing Europe's capital markets union, with a strong focus on improving the conditions for the financing options of European scale-ups²². We are also frontloading investment in renewables, which will ultimately make us more energy independent, although this process will take time and we will need to be realistic.

In the interim, we may need to depend even more on countries that have the necessary resources. For example, 80% of the global supply for rare earth metals currently comes from just three countries²³. But we are also working

together with our friends and allies who face similar bottlenecks, like the United States, to make our supply more diversified. For example, the EU intends to establish a Critical Raw Materials Club, inviting partners with similar geopolitical and economic security concerns to join in the pooling of investments²⁴.

Diffusion

But once ideas are commercialised, they need to be diffused. Remember that what drives long-term growth is not only innovation by superstar firms, but also that innovations spread widely to less productive ones. Historically, one of the strongest drivers of technology diffusion has been free trade, especially between our two economies. For example, analysis points to a lag of three to four years between innovations in US industry and those in European industry²⁵.

But research suggests that diffusion has slowed across advanced economies in recent decades²⁶ – a trend that may partially reflect the nature of the digital economy itself, which tends to create ‘winner-takes-the-most’ markets²⁷. And in Europe’s specific case, slow diffusion also reflects the fact that, unlike the United States, we have not yet fully unlocked our innate scale as a continental-sized economy.

We have developed a business model in Europe that is unusually reliant – for a large economy, at least – on selling to other large economies, including capital goods that enable them to exploit their own scale. More than a third of our manufacturing GDP is absorbed outside the EU, compared with around a quarter for China and just a fifth for the United States²⁸.

But we have not made full use of our own scale to encourage our companies to adopt more technology. We are home to over 445 million consumers and 23 million firms²⁹ and yet our internal market remains fragmented, especially for services³⁰. Intra-EU trade in services accounts for only about 15% of GDP compared with over 50% for goods³¹.

This untapped potential is costing us dearly in terms of foregone growth and productivity gains. Remaining trade frictions in the EU mean that we are leaving around 10% of potential EU GDP on the table, according to one estimate³².

And it is also affecting our competitiveness. We now see that other major economies are using their combination of technology and scale to push ahead faster in key sectors. China may now be leading in 37 of 44 critical technologies including electric batteries, hypersonics and advanced high-frequency communications such as 5G and 6G³³.

But Europe is also acting on this front to lift its constraints. Europe's leaders welcomed a major new report on the Single Market, calling for removing the remaining barriers in the crossborder provision of services as well as a 'policy shift' to reflect the new geopolitical and competitive environment³⁴.

And here again, Europe and the United States have shared interests in working together, especially in ensuring a level playing field between countries that play by the rules, while acting robustly in instances where rules are being broken to create an unfair advantage³⁵.

In other words, we should not become engaged in a subsidy race between our economies, which creates a zero-sum game. We should instead ensure that we use our collective weight in international trade to discourage others from anti-competitive practices, while increasing the free flow of ideas amongst ourselves – a positive-sum game.

Ambition

Will we be able to achieve all this? Ultimately, it is a question of ambition – and that is the final bottleneck we will have to break. In recent years, leadership has often been *reactive* in nature. This has been somewhat understandable in an era of 'permacrisis' – in which one shock, like the pandemic, is quickly followed by another, such as the outbreak of war.

But reactive leadership is no longer enough. Crises are becoming ever more global, requiring unprecedented levels of coordination across several sectors of society. And at the same time, the world is moving in directions that make such cooperation more difficult.

That is why we need *proactive* leadership – where we define the flow of events instead of simply responding to them. And for this we need to be far more ambitious.

The history of Europe gives us many examples of how effective such leadership can be. In the 1950s, an era marked by supply shortages and rationing, Europe started building common supply chains and pooling the production of inputs such as coal and steel.

In the mid-1980s, when Europe had exhausted the potential of what was then its common market, it forged ahead by creating the Single Market and reinvigorating growth. And in the 1990s, when exchange rate volatility threatened the stability of our currencies, we pushed forward with our monetary union to anchor our Single Market.

In doing so, we achieved what many had once thought impossible, and progressively united a continent that had been torn apart by two world wars.

When I look across advanced economies today, I am confident that our leaders understand what is required of them. Both the CHIPS Act and Inflation Reduction Act in the United States are accelerating the take-up of new technology. And I have listed many initiatives in Europe that are in the works, while there are many more that I have not touched upon.

But focusing on Europe in particular, what gives me hope is that, unlike after the great financial crisis, both leaders and citizens are aligned on what needs to be done. We realise that we can no longer afford to see ourselves as a loose club of independent economies.

That perspective is outdated in a world that is fragmenting into geopolitical blocs centred around the largest economies. And we know that we need to start seeing ourselves as a single, large economy with predominantly shared interests. This change in perspective also calls for joining forces in more areas.

We face increasing demands on spending from ageing populations, the climate transition and a changing security environment that we will only be able to meet together. And if we do not, we will face some difficult choices between sustaining our social model, delivering on our climate ambitions and playing a leading role in global affairs.

By acting as a Union to raise our productivity growth, and by pooling our resources in areas where we have a tight convergence of priorities – like defence and the green transition – we can both deliver the outcomes we want and be efficient in our spending so that we do not have to make sacrifices elsewhere.

And while this approach may require breaking some long-established taboos, we say in French that “*nécessité fait loi*” – or necessity knows no law. Our citizens understand this reality, even in a context where populism is on the rise. We see in poll after poll that Europeans believe that acting together is the best route to prosperity and security.

Over two-thirds of EU citizens feel that the EU is a place of stability in a troubled world³⁶, more than three-quarters are in favour of a common defence and security policy³⁷, and eight out of ten agree that the EU needs to invest massively in areas like renewable energy³⁸. And in the euro area, support for our single currency remains close to record levels³⁹.

So I am confident that the ambition of our policymakers and the will of our people are aligned, and that we will break the bottlenecks that are preventing us from reaching our potential.

Conclusion

The global economy finds itself at a turning point, with old realities being replaced by new uncertainties. But amid all this change, some things remain resolutely the same. It is by generating new ideas, and creating the conditions in which they can spread and flourish through our economy, that we can drive future growth.

To create those conditions, Europe needs to break key bottlenecks in translation, diffusion and ambition. This will not be easy. But for too long we have simply talked about these problems instead of solving them through concrete actions. As Franklin once put it, *“Well done is better than well said.”*⁴⁰

In the end, we have a simple choice to make: either we break these bottlenecks, or we let these bottlenecks break us. Given the sense of urgency, the support for action and the consensus on what Europe needs to do, I know which side I stand on. And I am confident we can succeed. ■

Christine Lagarde is President of the European Central Bank

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Reforming EU innovation policy



Europe lags behind in innovation. Clemens Fuest, Daniel Gros, Philipp-Leo Mengel, Giorgio Presidente and Jean Tirole argue that EU innovation policy should support disruptive innovation to compete

That Europe is lagging in innovation has been diagnosed for a long time. More than a decade ago, the EU launched the Innovation Union, and increasing expenditure on R&D to 3% of GDP has been an official goal since the launch the Lisbon Strategy in 2000. However, gross domestic expenditure on R&D in the EU is still below 2% of GDP, lower than in other major economies such as the US, Japan, and China.

The reason why the EU lags behind other regions is not that governments (national and EU) spend less on R&D than its rivals. In 2020, government-funded R&D amounted to €110 billion in the EU (mostly by national governments) and €150 billion in the US, accounting for a very similar percentage of GDP (around 0.7%) and higher than in many other regions of the world.

The key reason for the overall transatlantic difference is the lower engagement in R&D by the business sector, whose spending amounts to only 1.2% of GDP in the EU, versus 2.3% of GDP in the US. These often-cited OECD figures, however, do not allow for a sectorial breakdown.

To analyse in more detail the sectoral composition of R&D, in our recent paper (Fuest *et al* 2024), we use data from the EU Industrial R&D Scoreboard, which are based on the accounts of the 2,500 largest companies in the world in terms of R&D spending¹.

Europe's middle technology specialisation

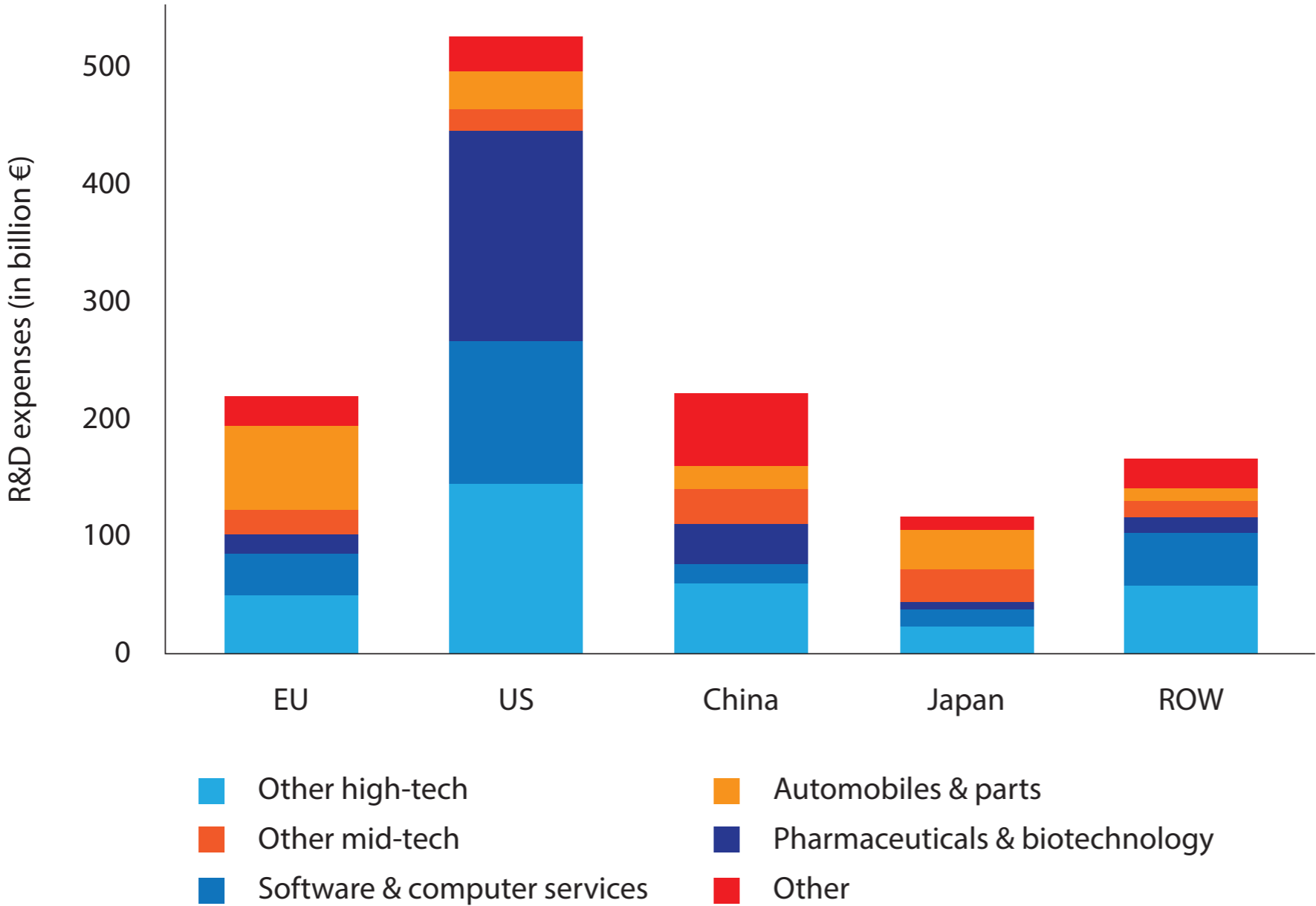
Figure 1 shows the sectoral composition of business R&D spending (BERD) in nominal terms for businesses headquartered in the four regions plus a residual, the rest of the world (ROW). In the US, high-tech industries – mostly software & computer services and pharmaceuticals & biotechnology – account for 85% of BERD.

In the EU, by contrast, mid-tech industries – especially automobiles & parts – account for roughly 50% of BERD, a much higher share than in the US². The sectoral composition of corporate R&D spending by EU-headquartered firms is more similar to that of Japan and China than the US.

The European pendant to DARPA was supposed to be the European Innovation Council (EIC), created in 2021 with the aim of supporting disruptive innovations

Figure 1. BERD by technology level, top 2,500 companies

www.worldcommercereview.com



Source: Industrial R&D Investment Scoreboard (2023).

Not surprisingly, high-tech industries are much more R&D-intensive than mid-tech industries. Therefore, the larger share of high-tech industries in the US is a key factor explaining why BERD is so much higher than in other economies.

What is more, evidence suggests that public-sector support is more likely to crowd out business R&D in low R&D-intensity industries (eg. Marino *et al* 2016, Szücs 2020), which might explain the low business-sector multiplier in the EU relative to the US^{3,4}.

Europe's middle technology specialisation is permanent – a trap?

Table 1 shows the top three R&D spenders and their industries over time as a further illustration of the diverging development across the Atlantic. It gives the top three companies in terms of R&D spending and their respective industries over the last 20 years in the US, EU, and Japan⁵.

In the US, Microsoft is the only company appearing more than once among the top three R&D spenders. Meanwhile, in the EU and Japan, Volkswagen (VW), Mercedes, and Toyota remain in the top three over the 20 years, while Panasonic, Bosch, and Honda appear at least twice.

Interestingly, in the US two of the three top R&D spenders in 2003 were also in the automotive industry, but this changed over time. The software industry became increasingly important over the years; by 2022, all top-three spenders produced software.

In the EU and Japan, the auto industry tended to dominate throughout the 20-year period. These patterns are consistent with the literature on path dependence in innovation and industrial specialisation (eg. Acemoglu, 2023, Aghion *et al* 2021, Aghion *et al* 2016)^{6,7}.

Table 1. Top three R&D spenders and their industries compared over time

	2003	2012	2022
US	Ford (auto)	Microsoft (software)	Alphabet (software)
	Pfizer (pharma)	Intel (hardware)	Meta (software)
	GM (auto)	Merck (pharma)	Microsoft (software)
EU	Mercedes-Benz (auto)	VW (auto)	VW (auto)
	Siemens (electronics)	Mercedes-Benz (auto)	Mercedes-Benz (auto)
	VW (auto)	Bosch (auto)	Bosch (auto)
JPN	Toyota (auto)	Toyota (auto)	Toyota (auto)
	Panasonic (electronics)	Honda (auto)	Honda (auto)
	Sony (electronics)	Panasonic (electronics)	NTT (telecom)

Source: Industrial R&D Investment Scoreboard (2004, 2013 and 2023).

EU (and Japanese) industry thus failed to transition to high-tech sectors. One reason might be that the incentive to do so was much lower in Europe, where the profit margin of high-tech industries was only about 3 percentage points higher than mid-tech ones, whereas in the US the difference in profit margins between high-tech and mid-tech industries was about 7 percentage points (Redding and Melitz 2021). The incentive to allocate capital to high tech firms was thus much higher in the US than in Europe.

It is possible that the higher profit margins of US high-tech firms at least partially reflect the near-monopoly position of US software giants in their respective markets. But this does not alter the fact that the availability of higher profit margins for US firms presented a strong incentive to invest in these industries.

R&D-intensive industries can be considered natural oligopolies, in which a few market leaders emerge, sustained by the dynamics of large market shares fuelling R&D, which in turn sustain large market shares in a virtuous cycle leading to dominant positions⁸. In these industries, sales and R&D expenditures follow a similar pattern (Sutton 2007).

The evolution of profits in our data reflects these patterns of natural oligopoly formation. The initial advantage of the US in high-tech was magnified over time, whereas EU (and Japanese) industries remained in their specialisation pattern. Breaking this path dependency justifies public-sector intervention to provide the seeds for an alternative model of specialisation.

How to break out: fostering innovation

In the US, the Defense Advanced Research Projects Agency (DARPA) is widely credited as having played a crucial role in fostering the emergence of high tech, including such pivotal innovations as the internet.

ARPA, as it was called initially, was created in response to the 'Sputnik shock' of the late 1950 to support, as the name suggests, advanced research projects that are not of commercial interest because their significance might reveal itself only later. The selection of the projects to be financed is left to the Agency that employs by now close to 100 highly qualified programme managers.

This model of supporting advanced research is not limited to the defence sector, there exist now ARPAs for energy health and artificial intelligence⁹.

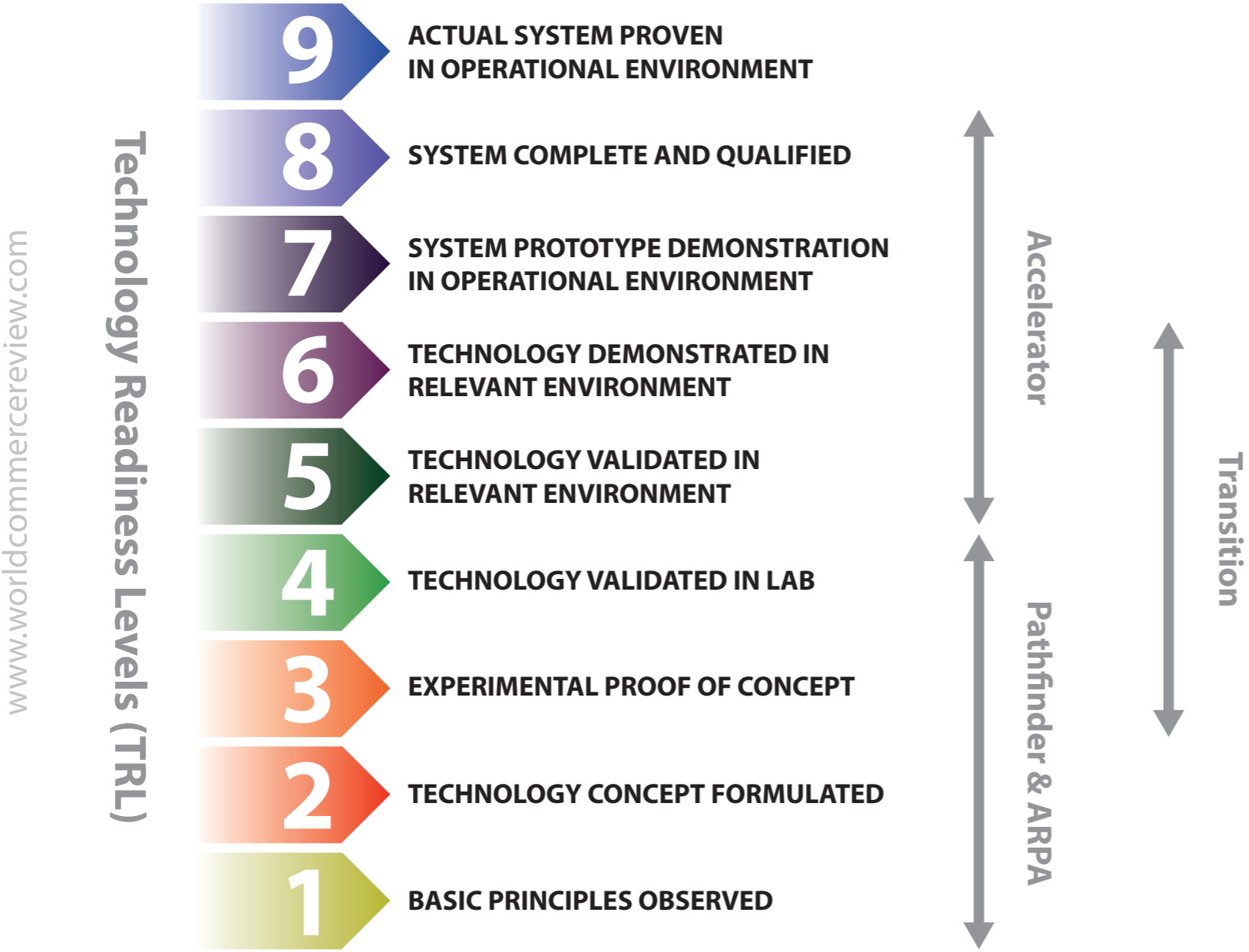
The European pendant to DARPA was supposed to be the [European Innovation Council](#) (EIC), created in 2021 with the aim of supporting disruptive innovations. The name 'Council' is actually misleading since the EIC consists essentially of three separate programmes, called Pathfinder, Transition, and Accelerator.

As the headings suggest, Pathfinder finances projects at their early stage, whereas the purpose of Accelerator is to 'accelerate' the commercial application of emerging technologies and support the growth of start-ups. The annual budget of the EIC is about €1 billion (against about \$4 billion for DARPA alone).

Similar to the ARPAs, the details of EIC calls are set by programme managers within the overarching objectives of the European Commission. Programme managers also determine the specific goals of the individual projects and group them in thematic portfolios. Still, despite efforts to emulate the salient features of the ARPA model, the EIC falls short in at least two key respects.

A first key aspect, the type of projects financed by the EIC, can best be explained using a technology readiness level (TRL) indicator, described in Figure 2. This indicator goes from 1 (only basic principles observed) to 9 (actual systems in operation).

Figure 2. Technology readiness levels



Source: Authors' representation based on official sources.

ARPAs typically focus on developing 'proof-of-concept' (Azoulay *et al* 2019) or projects up to TRLs 3-4 at most. Once projects reach a sufficient maturity, usually taken to be the demonstration stage (TRL 5 or above), they 'graduate' and leave ARPAs with the expectation that private capital will flow and scale them up.

Azoulay *et al* (2019) position ARPA-funded projects on the initial flat part of the innovation S-curve, relating research effort and technical progress (Foster 1986)¹⁰. On the initial part of the curve, a high degree of effort results in very limited performance gains, and delayed payoffs limit incentives to pursue the project. This is where public-sector support is most needed because it addresses a clear market failure.

Instead, about two thirds (€700 million) of the annual budget of the EIC goes to the Accelerator programme that finances projects with TRLs above 5. This is **expressed in the official task** of the EIC to *"support disruptive innovations throughout the lifecycle from early stage research, through to the financing and scale up of start-ups and SMEs."*

The EIC thus has a dual mission not only to support disruptive innovation, but also to finance scale-up and SMEs. It is thus not surprising that the management of the EIC programmes is housed in the former EU executive agency for SMEs, renamed the European Innovation Council and SMEs Executive Agency (EISMEA). Given the large share devoted to high TRL products, the EIC thus has only about €300 million for ARPA type projects, one tenth of DARPA alone.

A second key difference concerns the selection of projects and their management. First, the selection process is still politically controlled, which is in conflict with the best international standards (ARPA structures here, and also NSF, NIH and the EU's own ERC for fundamental research).

Second, the EIC has only a very small number of project managers, each of which oversees dozens of projects. This means that each project manager has to deal with projects that are outside her areas of expertise. Moreover, only

about one half of the Board of the EIC is composed of scientists and engineers that might have the qualification to find the most promising projects.

Based on this analysis we propose two approaches to improve EU support for innovation that do not require an increase in the EU budget:

1. Better management. Reform the governance of the EIC, hiring a larger number of independent and highly qualified programme managers and giving them greater discretion over project selection and management.
2. Better use of budgetary resources toward disruptive research, which currently accounts for a paltry 5% of total funding. Scale down existing under-performing programmes like the European Institute of Innovation and Technology (EIT) and the European Innovation Ecosystem (EIE).

Replace the financing of equity stakes from the Accelerator budget with other sources whose mission is investment, rather than innovation. For example, the EIC could be merged with the European Investment Fund (EIF) or the proposed Sovereignty Fund. This would free up €0.41 billion per annum.

With this combination of management reforms and redirection of existing resources, Europe could create a much stronger structure to prioritise and boost game-changing innovations through a budget neutral restructuring, thus taking into account limitations for the overall EU budget. ■

ABOUT THE AUTHORS

Clemens Fuest is Professor of Economics and Public Finance at Bibliothek Wirtschaftswissenschaften – University of Munich; Director of the Center for Economic Studies; Executive Director of Cesifo; Speaker at the European Network for

Economic and Fiscal Policy Research; and President of the ifo Institute; Daniel Gros is Director of the Centre for European Policy Studies, Brussels; Philipp-Leo Mengel is a PhD Researcher at Bocconi University; Giorgio Presidente is a Postdoctoral Researcher at the Oxford Martin School, University of Oxford; and Jean Tirole is Director of the Toulouse School of Economics.

Endnotes

1. The data are taken from the EU Industrial R&D.
2. For the purpose of this exercise, we have used three broad categories: high- and mid-tech plus the remainder, 'other', mostly including services and utilities. Our classification is similar to that adopted by Eurostat and the OECD.
3. One reason might be that R&D-intensive industries need resources far exceeding the typical amounts of a grant.
4. In the EU, €1 of public-sector spending is associated with €2 spent by the private sector. In the US, the private-sector multiplier is equal to 3.
5. We do not include China because some companies there have changed their reference industry over the years.
6. Typically, in these models increasing returns to scale resulted in past advances (in a given sector or technology) facilitating further advances in the same sector.
7. These patterns are also consistent with evidence of declining business dynamism around the world (eg. Akcigit 2024, Biondi et al 2024, Decker et al 2020), but analysing that aspect goes beyond the purpose of this study.
8. We wish to thank Michele Polo for pointing this out.
9. They are called ARPA E-ARPA H and ARPA-I.
10. The metric of technological progress depends on the technology considered, such as kilowatt-hour of electricity generated, or computational speed.

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Not a 'side dish'

Industrial policy is undergoing a major resurgence. Cristina Caffarra and Nathaniel Lane argue that getting Europe to improve performance will require a massive, concerted effort at national and EU levels

Speaking recently to an audience in Brussels (at an event that has since become known as the ‘Anti-Davos’)¹ the European Commission’s top competition enforcer provocatively remarked that, “[w]hen it comes to the big issues of our times, I am afraid competition policy is neither the problem, nor the solution – it’s a side dish.”

The statement triggered a cascade of reactions and responses. Weeks away from a European election that may change Europe’s political landscape, in this column we discuss why competition policy has a broader role than the comment credits it for. Far from being a ‘side dish’, antitrust will be important to the transformative role that resurgent industrial policy will need to play, particularly in Europe.

Beyond digital regulation

Digital enforcement (‘taming Big Tech’) has assumed totemic value in Europe: it is the test of our credibility, resolve, and effectiveness in confronting surveillance business models and the entrenched market power of Big Tech. As antitrust enforcement in digital has failed, regulation is now the beach on which we fight.

If Europe can achieve results here, it shows the world what can be done. But digital enforcement is also getting too much attention in relation to the scale of Europe’s real structural problems. While we pride ourselves of our efforts to ‘tame Big Tech’, policymakers must urgently confront Europe’s underwhelming economic performance across sectors.

Europe is falling behind on multiple fronts: productivity, competitiveness, R&D, IT investments, and more. This view is not controversial: many have been sounding the alarm, from the ECB (Schnabel 2024) to the Bruegel think tank with their recent report for the Commission’s EGov Directorate (the ‘Bruegel EGOV report’; Pinkus *et al* 2024)².

Digital enforcement will do its thing, and it is underway. Yet on the eve of a European election, deep structural problems are urgently on the table for the incoming 2024-29 Commission. The European Commission has tasked two former Italian prime ministers, Mario Draghi and Enrico Letta, to report on competitiveness and progress towards the Single Market, respectively.

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Their reports will inevitably discuss the causes of Europe's fragmentation – its multitude of languages, cultures, rules, financial markets, capital markets, and economic trajectories – and what can be done to reduce those barriers and address our 'competitiveness crisis' (Schnabel 2024).

The reports are also expected to highlight the need for massive ramp-up of investment in multiple strategic sectors, to promote green transition and digitalisation, to increase Europe's resilience in the global economy, and curb de-industrialisation. The future demands and scope of these investments will be unprecedented.

While Europe has experience with large-scale government spending, both historically and with the pandemic and its aftermath (eg. the EU Recovery and Resilience Facility), calls for state-led investment are now much more expansive. The confluence of post-pandemic emergencies and the waning of the Washington Consensus have created a further sense of urgency in two dimensions.

First, a global resurgence of economic interest in the design of appropriate industrial policies (eg. Juhász *et al* 2022); and second, a significant pivot in the US away from the traditional aversion to the state playing a role in markets (Armstrong and Wu 2024). What does this all mean for Europe, and the role of competition policy?

The 'New Industrial Policy'

Industrial policy has returned as a major object of interest, with a proliferation of new thinking over the last five years by academics and practitioners (Rodrik *et al* 2023). Questions around industrial policy have turned from 'whether' (ie. 'should governments carry out industrial policy?') to 'how' ('how should industrial policy be carried out?').

A recent wave of research, the ‘New Economics of Industrial Policy’, has generated more nuanced views, and nascent work is tempering historical concerns that industrial policies are necessarily harmful: because ‘losers pick governments’, and state support necessarily produces ‘zombie companies’ – inefficient national champions.

While these risks are real, recent empirical work has also established key episodes where industrial strategies likely “*shifted resources in the desired direction, often producing large long-term effects in the structure of economic activity*” (Juhász *et al* 2023).

A diverse community of industrial policy thinkers is coalescing around critical themes. There are undoubtedly differences in the ‘how’ (from Mazzucato 2020, urgent advocacy for mission-oriented ‘moonshots’, to more mainstream economic theories of intervention in Juhász *et al* 2023), but there are also key commonalities: the importance of focusing on strategic sectors, the need to go beyond blunt instruments of post-war policy, and a focus on collaborative and deliberative policymaking, with input from the private sector.

Scholars are also emphasising the importance of averting government failures through the design of guard rails and conditionalities (Lane 2021, Mazzucato and Rodrik 2023).

What makes the rethink all the more salient is the big ‘pivot’ of the current US administration towards ‘industrial strategy’, with large public funds being allocated and disbursed to support a variety of goals: green transition, rebuilding domestic capacity offshored in the neoliberal era, supporting deindustrialised areas, reducing dependency on concentrated and brittle supply chains, and ‘crowding in’ complementary private investments.

Foroohar (2024) argues this does not yet amount to a fully coherent industrial policy, but we would be inclined to be indulgent given the magnitude of the pivot.

'Antimonopoly' thinking as foundational

The focus on averting the misadventures of past industrial policy (in particular, support for 'national champions') is an important reason why antitrust thinking has a major role to play in the new landscape.

In the US, the worlds of industrial policy and antitrust have recently been colliding. With the major shift in antitrust thinking in Washington over the past few years has come recognition that antimonopoly values (fairness, equality, citizenry) must pervade and motivate other economic policy tools – including trade and industrial policy.

As the Chair of the Federal Trade Commission, Lina Khan, recently articulated, *"we are hearing arguments that America must protect its domestic monopolies to ensure that we stay ahead on the global stage. (...) we should be extraordinarily sceptical of these arguments, and instead recognize that monopoly power is a major threat to America's national interest."*

Further, *"the choice to bring antitrust lawsuits against AT&T and IBM ended up fostering waves of innovation"* (Khan 2024). And yet further: *"competition policy will be a key complement to achieve industrial policy goals. As we're handing out subsidies, are there going to be strings attached, that create trajectories on an open and competitive path, rather than a closed and monopolistic path? If the industrial policy vision is one of government as a more active participant in 'market making' and 'market shaping', we need to make sure that our values and our vision around competition policy are wholly a part of that decision making."*³

Tim Wu, a key architect of Biden-era thinking on antitrust, also describes antitrust (and, in particular, past lawsuits breaking up monopolies) as 'industrial policy'.

Indeed, where antimonopoly promotes intentional economic change, it is, by definition, “*an industrial policy*” (Juhász *et al* 2022). Making antimonopoly thinking part of the industrial policy toolbox can help break with the past: there is clear recognition among industrial policy scholars that where strategic investments are made, markets must remain ‘oxygenated’ – not favour dominant players; and that the more successful industrial policies are those which have supported competition (Aghion *et al* 2015, Nahm 2021).

Just like the ‘efficiency paradigm’ of the neoliberal era has been superseded in antitrust, efficiency goals may not sufficiently capture the broader aims of an industrial policy – for suppliers, regional economies, communities, citizens, and more.

‘Antimonopoly’, the fight against market power and its pathologies, is a fundamental value that must underpin also the direction of investments to lift entire sectors and communities. What may not be ‘efficient’ may have other social benefits.

The European predicament

Europe has responded to the pandemic and the ‘polycrisis’ also with a large increase in public spending initiatives, but we continue to face a large and widening gap in economic performance with the US and other blocks.

This reflects in part a deep structural problem of persistent fragmentation along national borders, which has been Europe’s ‘Sisyphean rock’ for decades notwithstanding major past efforts (Pinkus *et al* 2024).

Confronting our declining economic performance will require a major increase in public spending in selected strategic sectors, which is hard for a collection of sovereign countries, with limited federal-level resources and persistent fears that common public spending could benefit some countries more than others.

The Bruegel EGOV Study suggests as a possible way forward what they describe as “*coordination for competitiveness*” – the European Commission performing a central coordination role to “*cooperate in areas that offer the greatest gains on a sector-by-sector basis, supported by some EU-level funding. Energy policy coordination and an EU Advanced Research Projects Agency (ARPA) are two examples.*”⁴

What should competition policy do?

What should be the role of competition policy in designing these policies? Pushing back against ‘national champions’ is certainly not new in Europe, where European Commission state aid policy has been traditionally tasked to control excess spending by national governments, and their incentives to prop up their own ‘zombie firms’ with state funds.

State aid is a large part of Directorate-General (DG) for Competition, systematically vetting national schemes dreamt up by member states to support local interests, with the objective of avoiding distortions to ‘competition in the Internal Market’. The traditional requirement for state support not to fall foul of state aid rules is that it ‘addresses a market failure’ in the ‘most efficient way possible’.

It is thus unsurprising that in a recent contribution to the debate on the need for more industrial policy, senior DG Competition officials drawing from their state aids experience recommended that each industrial policy intervention be justified by a specific market failure, and adopted measures be ‘efficiency-enhancing’ (Piechucka *et al* 2023).

The paper mentions ‘efficiency’ over 100 times, ‘efficiency-enhancing’ over 30 times, and ‘market failure’ 80 times. While of course we want to avoid wasteful effort, this focus seems out of line with the evolution of current thinking both in antitrust and industrial policy.

For instance, efficiency criteria are at odds with the rationales driving policy discussions on place-based policies and 'good jobs', which are aimed to produce larger social benefits. Efficiency criteria are also empirically incomplete: how do we prove something is 'efficiency enhancing', particularly in the case of policies with long gestation periods and whose benefits are borne in the future (Lane 2020).

But more fundamentally, the usefulness of 'efficiency' as a principled goal has come deeply into question. As put by Deaton (2024), *"we valorize (efficiency) over other ends. Many subscribe to (the vision) that says economists should focus on efficiency and leave equity to others, politicians or administrators. But the others regularly fail to materialise, so when efficiency comes with upward redistribution – frequently though not inevitably – our recommendations become little more than a license for plunder."*

Simply put, extending traditional 'state aid' thinking to industrial policy is undesirable at a time when thinking and practice around interventions are evolving. We don't need to reassure ourselves we are being 'orthodox' by casting everything as a market failure (which is easy to do, in any event, if one tries – but so what?).

Nor is efficiency the 'north star' we need to be pursuing. We will need major increases in spending from the centre, and coordination of spending at the national level to ensure that collective objectives are not undermined. But if the aim is to build capacity and improve performance in Europe, industrial policy intervention that benefits citizens (not merely as consumers) cannot be held to a 'market failure/efficiency-enhancing' paradigm.

Competition insights and capabilities can and should be involved in industrial policy design to provide not just an assessment of state plans along traditional state aids lines, but also affirmative values of antimonopoly, de-concentration, fairness, and distribution.

Traditionalists will say ‘but what is the limiting principle?’ – this the generic objection to everything by those who want no change. We cannot be stuck with ‘efficiency’ when we need to accomplish so much more, and neoliberal ‘trickle down’ has been shown to be a chimera.

Urgent proof of concept: a digital industrial policy

Major focus needs to be placed on powering Europe’s digital infrastructure. Europe has set huge store by its ability to ‘tame Big Tech’ via multiple laws: the Digital Markets Act (DMA), Digital Services Act (DSA), Data Act, and AI Act. Whether this effort will truly enable European challengers to acquire more than a marginal role remains to be seen.

But we need more than extracting from Big Tech concessions to provide better deals to app developers, search rivals, ad-tech companies and e-commerce sellers, and create access regimes to platforms that are now critical infrastructure. We also need to invest locally in an independent, federated, decentralised digital infrastructure on which Europeans can build.

Europe has lower advanced technology adoption than the US, and the productivity divergence between high- and low-productivity firms has widened more in digital-intensive sectors (Criuscolo 2021). On the positive side, the number of EU-based start-ups is high, and there is vitality in terms of researchers, digital skills, and emerging technologies (Meyer 2024). Yet Europe’s fragmentation and its dependencies on US giants make it challenging to implement, commercialise, and scale hi-tech activity.

We thus need a robust digital industrial policy alongside the existing diet of EU regulation and innovation policies. This means coordinating national and EU-level efforts to create autonomous infrastructures and reduce the dependency on Big Tech. These goals also align with narratives on ‘sovereignty’.

As summarised by Bria (2023), *“to strengthen our economic and political sovereignty in a complex geopolitical environment, Europe needs a combination of regulatory frameworks and active digital industrial policies. This objective goes beyond merely crafting regulations. It’s about building new markets and industries, creating innovative institutions, and fostering ecosystems that truly serve the public interest.”*

Investing in a ‘Europe stack’ tech ecosystem should be an attractive candidate for EU-level funding because the crossborder externalities are high. Bria (2023) suggests a €10 billion EU Digital Sovereignty Fund, which would *“blend grants and equity investments, fostering pan-European collaboration among our national innovation agencies (...) to establish robust digital public infrastructures and digital commons, offering viable alternatives to current monopolistic digital platform models, supporting the deployment of open AI models and decentralized applications, sovereign data spaces, open knowledge tools and content, privacy-preserving digital IDs, and digital payment systems.”*

The Bruegel EGOV Study (Pinkus *et al* 2024) suggests an ‘EU ARPA’ involving the creation of an independent agency with a €5 billion budget to pool investment projects and coordinate spending at national level, to be topped up with additional funds from EU programmes. Objectives would be set by the EU Council and the European Parliament, but the agency would be autonomous in policy implementation.

While prior initiatives have proven insufficient for multiple reasons (for example, the Juncker Plan of 2015 and the European Fund for Strategic Investments), and significant obstacles remain – not least risk-taking appetite and competencies – we need to double down now that we have more scholarship, experience, and expertise.

Critically, the experience and expertise of DG Competition in digital markets will be critical here: successful investment in federated decentralised infrastructures requires understanding of the regulatory environment,

and of competitive dynamics which can facilitate private complementary investment and innovation on these infrastructures.

Overall, getting Europe to improve performance will require a massive, concerted effort at national and EU levels to identify strategic sectors and disburse funds in a targeted way that will crowd in private investment.

Competition thinking has a key role to play, not to enforce narrow and nebulous efficiency goals, but to ensure initiatives are consistent with antimonopoly values, fairness, and opportunities. Not a 'side dish'. ■

Cristina Caffarra is Honorary Professor at University College London, and Nathaniel Lane is Associate Professor and Post-doctoral researcher, Department of Economics, at Massachusetts Institute of Technology; and Associate Professor at the University of Oxford

Endnotes

1. <https://www.politico.com/news/2024/02/16/how-some-of-the-worlds-most-powerful-regulators-are-trying-to-upend-the-economic-system-00141802>.
2. The analysis of the causes of the gap in the Bruegel EGOV report includes: low labour and total factor productivity growth relative to the US especially since 2020, with large intra-EU differences; especially dramatic difference in productivity with the US in information and communication technology (ICT); slower accumulation of IT capital and better technology adoption in the US; much lower intensity of R&D spending especially in three key sectors – pharma/ biotech, software and IT; significantly higher industrial electricity retail prices than the US; higher hourly labour costs; much higher cost of equity finance and lower volume of venture capital funding and therefore much greater restrictions in accessing risk capital; and finally, much lower trade across national borders than one would expect to see given past effort at market integration.
3. <https://cepr.org/events/competition-policy-rpn-reinvigorating-antitrust-citizens-not-just-consumers>.
4. The reference is to the US ARPA, which has been instrumental in mobilising resources and investing them in high-risk, high-reward projects.

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How to de-risk



How should the EU 'de-risk' its external economic relationships without foregoing the benefits of trade? Jean Pisani-Ferry, Beatrice Weder di Mauro and Jeromin Zettelmeyer discuss

Executive summary

Pandemic-related supply disruptions, the energy crisis provoked by Russia's invasion of Ukraine and economic coercion by China have put economic security high on the European Union policy agenda. The question is how exactly the EU should 'de-risk' its external economic relationships without foregoing the benefits of trade. The standard answer is that it should identify product-level trade dependencies, mainly on the import side, and reduce them, mainly through diversification of suppliers, while otherwise maintaining maximum trade integration.

This Policy Brief argues that this answer falls short. First, product-level dependencies cannot be identified reliably even with sophisticated analysis and data. As a result, both 'missed dependencies' and 'false positives' are inevitable. Second, external shocks and coercion could be propagated through exports, productive assets held abroad and financial channels as much as through imports.

The analysis has five main implications:

1. Import de-risking should focus on a few product categories for which the costs of supply interruptions would be unquestionably large. This reduces false positives.
2. De-risking and/or buffers to deal with exports and financial coercion require more attention.
3. De-risking must be complemented by raising resilience against all shocks, whatever their origin. This requires a deeper and broader European single market.
4. De-risking and resilience must be complemented by deterrence.

5. A sufficiently high probability of chronic trade conflict – or one very large conflict – may justify reducing overall integration with a large trading partner, on both the export and import sides.

EU economic security policies have been right to emphasise the reduction of import dependence on chips and critical raw materials, and the creation of a powerful legal instrument to deter coercion (the Anti-Coercion Instrument). In most other respects, there is room for improvement.

Economic risks relate increasingly not just to crises or shocks, but to deliberate economic coercion by foreign governments

1 Introduction

Over a period of just fifteen years, Europe has been confronted with a financial shock that originated in the United States, a pandemic shock that originated in China but could have come from anywhere, and an energy shock provoked by Russia's invasion of Ukraine. These events have prompted a re-examination of efficiency/security trade-offs that arise as a result of international integration, and particularly as a result of specialisation in international trade and the vulnerabilities of global supply chains.

Economists and policymakers have long worried about similar trade-offs. At the most fundamental level, such trade-offs arise from the standard tension between growth and economic crises: higher growth is often accompanied by greater instability. For example, regulation of financial and product markets may prevent or mitigate financial or environmental hazards at the cost of dampening entry and growth of firms. Similarly, in open economies, trade and financial integration may be good for growth, but can expose economies to imported shocks.

The most recent set of concerns – as exemplified, for example, by a series of European Commission (2021, 2022) papers and an associated legislative agenda (see section 4, and McCaffrey and Poitiers, 2024) – differs from these standard preoccupations in two respects.

First, economic risks relate increasingly not just to crises or shocks, but to deliberate economic coercion by foreign governments or even non-governmental entities (such as criminal groups). This is probably the reason why the term 'security' – as opposed to 'stability' or 'resilience' – has become popular to describe the mitigation of economic, rather than just national security threats (we discuss the difference in section 2).

One reason to be concerned with economic coercion is that China, an increasingly powerful and authoritarian country, has been applying coercion regularly in response to political actions by trade partners (for example,

Australia's call for investigations into the origin of the COVID-19 pandemic and Lithuania's decision to let Taiwan open a representative office in Vilnius¹).

But the concern is not just about China: the policies of President Trump between 2017 and 2020 showed that even one's closest ally can be tempted to leverage its market power and its control of the technical and financial infrastructures of globalisation. The possibility of a second Trump term is now prompting a reflection on the need for Europe to prepare for such a risk (Gonzales Laya *et al* 2024).

Second, recent concerns have focused mostly on trade-related rather than financial vulnerabilities. This reflects the fact that trade-related vulnerabilities have become more prominent as a result of specialisation and the vulnerability of global supply chains that maximise efficiency, but at the cost of creating hidden fragilities.

But the prominence of trade concerns may also reflect a rather myopic reasoning, as the last two or three external shocks that Europe (and, to a lesser extent, the US) has suffered have been trade-related: supply chain disruptions related to COVID-19 and energy price shocks following the Russian invasion of Ukraine.

In line with this concern, we focus mostly on trade-related external economic security. This should not be taken to imply that Europe does not need to worry about financial security. But unlike trade-related security, financial risks continue to be mostly of the financial-stability variety, linked to shocks and financial vulnerabilities rather than coercion. To the extent that financial coercion is a serious concern, it is linked to one main potential source: the United States if President Trump returns (see section 2). In contrast, trade-related external security risks are ubiquitous.

In this Policy Brief we seek to answer two critical questions. First, how should trade-related vulnerabilities be identified, and what trade relationships make Europe particularly vulnerable to shocks and coercion? Second,

how can these vulnerabilities be reduced while minimising the costs of 'de-risking' and reducing the chances of unintended consequences? Four such potential costs come to mind:

- Foregoing some of the gains from trade specialisation and trade openness. This could weigh on European growth and competitiveness, which depend on export specialisation and on importing raw materials and intermediate inputs more cheaply than they could be produced at home (if at all). It could also make it harder to attain emission reduction objectives, by raising the cost of the transition to renewable energy sources. In turn, this could exacerbate social and political divisions related to climate action.
- Becoming more vulnerable to domestic shocks including natural disasters, epidemics and home-grown financial crises – and more generally, to any shock whose consequences would be mitigated by international trade and/or capital flows.
- Damaging international cooperation. This could include European Union cooperation with China on vital matters of common interest, such as climate-change mitigation, as well as respect for the rules of the multilateral trading system. Notwithstanding the damage that the World Trade Organization has suffered over the last decade, these rules continue to be largely respected (Mavroidis and Sapir, 2024).

An aggressive 'de-risking' of European trade relationships through trade policy tools and subsidies could trigger protectionist reactions from trading partners, particularly if measures violate WTO rules. It could also become an excuse for protectionists in the EU, who might use economic-security arguments to further special interests.

- Damaging cohesion within the EU. EU countries differ in their trade structures and their dependence on specific export and import markets. As a result, attempts to de-risk trade may have net benefits for some

and net costs for others. If de-risking becomes a source of division, it may be counterproductive, as internal divisions in the EU are partly what an adversary – whether China, Russia or President Trump – might try to exploit (and indeed, divisions are what these three powers have tried to exploit in the past).

The remainder of this paper summarises as best we can the answers to these questions, drawing on a set of papers collected in Pisani-Ferry *et al* (2024). Section 2 defines what we mean by economic security, and what risks we should be worrying about. Section 3 discusses how these risks should be addressed in principle. What trade relationships require de-risking? Section 4 discusses the instruments. How can protection be built that preserves the benefits of trade? A concluding section summarises the main lessons.

2 Defining risks to economic security

As noted by Bown (2024), economic security remains an emerging concept. At its most abstract level, it can be defined as both preventing bad economic outcomes and making sure that should risks materialise, the damage they cause is minimised. Societies care both about raising expected welfare and about reducing its volatility. Economic security is concerned with the latter.

Defined in this broad way, economic security has been a standard concern of policy-makers for centuries – and not just of economic policymakers, since economic harm can be inflicted by ‘non-economic’ shocks, including political disruption and wars. The use of state intervention to address these concerns, including industrial policy and trade policy, is similarly nothing new (Kelly and O’Rourke, 2024).

The question, then, is how the concept of ‘economic security’ differs from those of ‘economic crisis prevention’ or ‘national security’. To the extent that the perceived nature of the risk and risk propagation has changed, it is important to understand how it has changed, to avoid duplication, and to prevent overreaction to perceived new risks when the old risks and risk propagation channels might still be there.

Economists concerned with crisis prevention and mitigation typically focus on risks and vulnerabilities related to the financial system or the structure of production. For example, credit cycles can expose countries to financial crises, which are propagated internationally. Dependence on commodity exports or imports exposes economies to swings in international prices and to disruption to domestic production that relies on commodity imports.

Military and security experts worry about a different type of threat: harm that is inflicted purposely by outside actors, normally nation states, but also terrorist or criminal organisations. Murphy and Topel (2013) widened the definition of national security to include all 'substantial threats' to the safety and welfare of a nation's citizens, eg. including national catastrophes and public health threats.

Defined this broadly, national security would include preparedness and mitigation against any harmful acts conducted by foreign governments or non-governmental organisations with military or non-military means, including economic sanctions, and threats related to physical and information infrastructure.

The recent usage of the term 'economic security' is at the intersection of non-financial economic crises and national security in the broad sense defined by Murphy and Topel². Specifically, it focuses on harm inflicted through international economic relationships – and particularly trade relationships – whether these reflect exogenous shocks (such as COVID-19-related trade disruption) or deliberate actions by foreign governments or non-governmental organisations (Bown, 2024; McCaffrey and Poitiers, 2024; European Commission, 2021, 2022).

These risks are particularly relevant today because of the combination of economic integration through trade and FDI, specialisation, long supply chains and actors willing to engage in coercion through these channels.

It is in this sense that the term 'economic security' will be used in the remainder of this paper. In this definition, achieving economic security involves the prevention and mitigation of:

- Disruption to critical imports, whether accidental or deliberate;
- Economic coercion through restrictions or boycotts on specific exports, along the lines of actions taken by China against Australia; or through pressures on foreign companies even when they produce locally (for example, threats of depriving them from access to the domestic market, restrictions on profit repatriation, or expropriation);
- A broad disruption of global trade at a scale with macroeconomic impact, for example, as a result of geopolitical conflict leading to economic sanctions or a protracted tariff war with a major trading partner. Events that could trigger such scenarios include a Chinese attack on Taiwan, or the re-election of President Trump triggering a sharp deterioration of the political relationship between the US and the EU.

It is important to emphasise that this a narrow – perhaps inappropriately narrow – definition of economic security, for two reasons. First, it disregards the possibility of economic disruptions as a result of domestic shocks, which historically have been a major source of economic crises (Table 1).

Hence, a better term for the type of economic-security risks we discuss would be 'external economic security'. This terminology reminds us that there could be trade-offs not just between economic security and economic growth, but also between external economic security and security from domestic shocks. International integration may increase exposure to the former but offers protection against the latter.

Table 1. Varieties of welfare threats and propagation mechanisms

		Origin		
		Domestic shock	External shock	Deliberate action
Propagation	Trade and investment	Economic	External economic	security risks
	Financial		crises	National
	Disease	Epidemics/pandemics		security risks
	Military			
	Other			

Note: The columns in Table 1 define the origin of a bad event – an exogenous shock originating at home or abroad (production disruption, natural catastrophe, transportation or infrastructure disruption, confidence shock) or a deliberate action by a foreign government or a non-governmental entity. The rows define the propagation channel: economic activity related to trade or finance, disease, military action or other (for example, through IT infrastructure).

Source: Bruegel.

Second, the narrow definition largely ignores external economic security risks through financial channels. However, international finance – including the international payments system and the confiscation of financial assets located in foreign jurisdictions – is an obvious instrument of economic coercion and economic sanctions, as shown by G7 sanctions against Russia since its full-scale invasion of Ukraine.

The main reason why financial risks do not feature prominently in the recent literature on European economic security is that Europe is much less likely to be on the receiving end of such sanctions, given the control exerted by the US and its allies over international finance.

But this could rapidly change if President Trump is re-elected in the United States and decides to use financial coercion against Europe for whatever reason (for example, to force Europe to align its foreign or commercial policies with those of the United States, as was the case when the US threatened EU firms with 'secondary sanctions' for violating US-imposed sanctions on Iran).

A broader analysis of European economic security should take into account such financial economic risks and how to mitigate them. For now, the remainder of this paper focuses on trade and investment-related risks.

These are particularly relevant for the relationship with China, but could also become relevant in the event of a return of President Trump and a revival of US tariffs against Europe, whether imposed for mercantilist or political reasons.

3 What to de-risk

Firms have incentives to avoid becoming dependent on one or a small number of suppliers or customers, particularly when those suppliers or customers are vulnerable to high risks outside their control, including politically motivated interference.

Yet, as Mejean and Rousseaux (2024) have pointed out, the firms' private interest in security may not be enough to take care of the collective EU security interest. Firms often fail to realise the extent to which suppliers or customers are themselves subject to risks, simply because they do not know the entire value chain.

Firms also do not internalise the potential costs of supplier or customer dependency on the entire value chain, and ultimately the welfare of citizens. If a supplier relationship represents a critical link in that chain, the social costs of that link failing may far exceed the private costs to the firm. This argument, which is broadly consistent with the evidence presented by Bown (2024), can justify policy-led de-risking.

But what areas of trade require de-risking? How can policymakers tell when trade dependencies are excessive, in the sense that the economic security risks of trade outweigh its benefits, both for efficiency and growth and as protection against domestic disruption? The ideal way to answer this question would be through a firm-level model of trade and supply relationships, both across borders and within the EU.

The model would 'know' who trades with whom, how specific inputs enter each stage of production, and to whom firms sell. It would also have information about the ease of switching suppliers if a supplier fails or sharply raises its prices. Such a model could be used to stress test European economies in relation to specific supply chain or customer risks.

Where large effects are found, it would be used to identify trading relationships worth de-risking. Unfortunately, such a model does not exist and may never exist because of data limitations. We are therefore constrained by the available information and should make the best of it.

3.1 Critical goods and the risk of import disruption

Suppose we were mainly interested in risks related to import disruption. This would be the case if exports are either well diversified or go mainly to countries that one would not consider to be major sources of shocks.

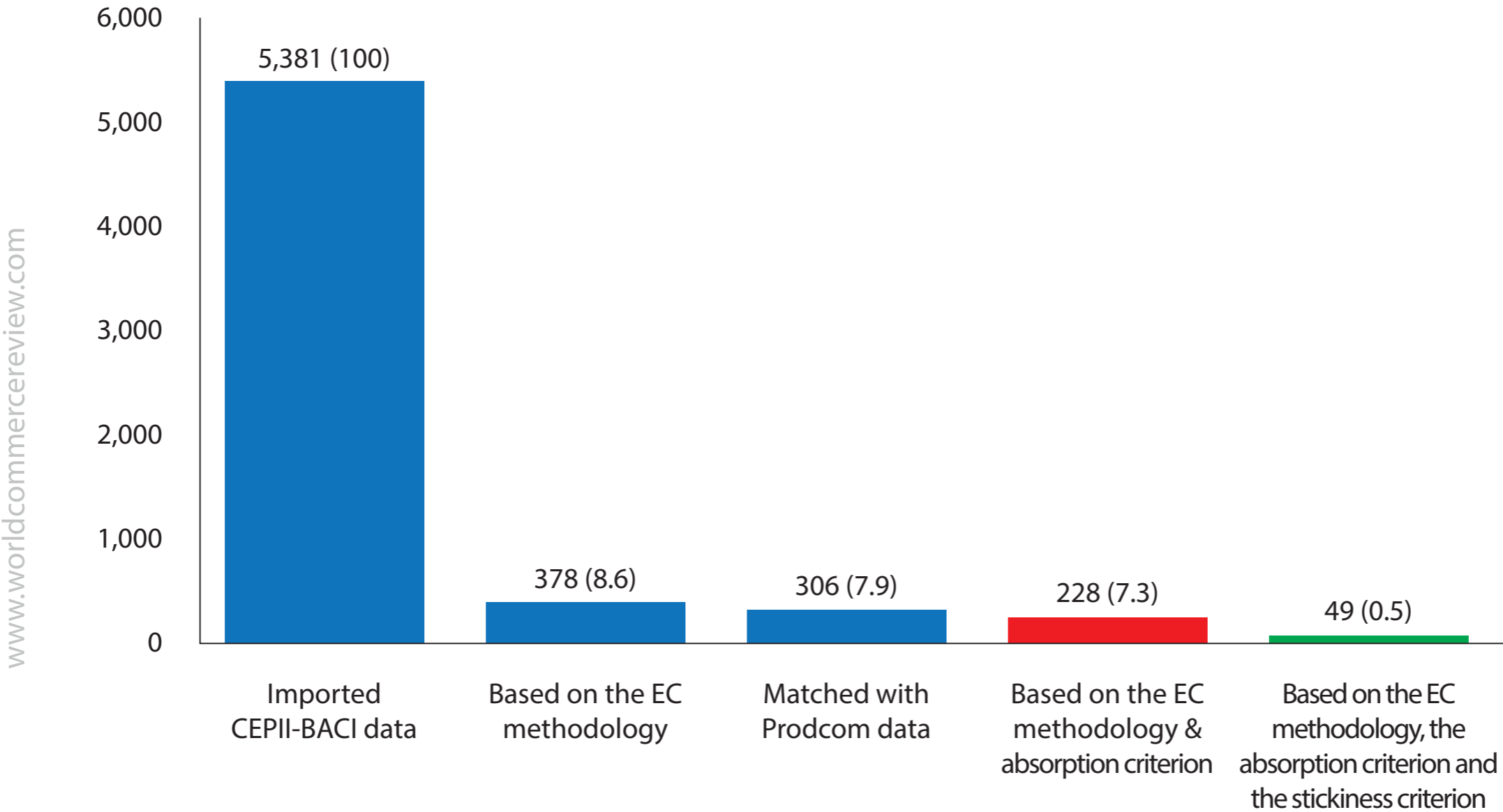
In that case, the following approach might be a close substitute for the perfect model. Using the most disaggregated data possible, one should identify products for which:

1. A large share of EU consumption relies on imported inputs;
2. Foreign supply of these goods is highly concentrated;
3. Finding alternative suppliers in the event of a disruption is difficult, and
4. Disruption to supply would have high economic costs. Unlike criterion 3, this criterion reflects the substitutability of products in either consumption or production, as opposed to the substitutability of supplier relationships.

Products that meet all four criteria would be prime candidates for de-risking. This approach, which builds on work undertaken by the European Commission (2021), approximately describes the approach taken in Mejean and Rousseaux (2024). Their main innovation relative to the work of the Commission and other authors is step 3, which they implement by eliminating products for which 'relationship stickiness' – the typical duration of firm-supplier relationships – drops below a specific threshold.

For example, if the stickiness threshold is set at the sample median, the number of products for which the EU should consider itself import-dependent drops from 378 to just 105, and to just 49 if the 75 percent least relationship-sticky products are eliminated (Figure 1). Focusing only on upstream intermediate products – for which an export ban would affect many supply chains and hence have high economic costs – would reduce the list further, to just 21 products. For 12 of these, the main supplier is China.

Figure 1. Number of products for which the EU is import dependent



Note: The figure shows the numbers of products for which the EU is import-dependent according to various methodologies, starting with that of the European Commission (2021) (second blue bar) and adding the criteria proposed by Mejean and Rousseaux, based on the ratio of imports over domestic absorption (red bar) and the degree of product stickiness (green bar). Numbers in brackets refer to percentage of value of EU imports. Source: Mejean and Rousseaux (2024).

To these, Mejean and Rousseaux (2024) suggested adding a small number of ‘critical goods’ that, if insufficiently supplied, ‘can result in human losses and other severe non-economic consequences’. These would include between two and 19 pharmaceutical products, depending on where the substitutability cut-off is set, as well as inputs to the green transition.

Interestingly, most of these inputs – including most critical raw materials, which have been among the main justifications for the drive to de-risk imports, particularly from China – currently fail one or several of Mejean’s and Rousseaux’s dependency tests.

While highly relationship-sticky, batteries and their components, hydrogen technologies, rare earth metals and solar panels fail the concentration test, and most components of solar panels fail both the concentration test and the relationship-stickiness test.

Yet, Mejean and Rousseaux urged caution with respect to these products, on the grounds that demand for them is developing so fast that the structure of EU imports during 2015-2019, on which concentration indices and import needs are based, may be a poor proxy for trade dependencies in the future.

Mejean and Rousseaux’s work represents the most exhaustive analysis so far to identify dependencies on the basis of ranking critical imports with respect to concentration and relationship substitutability, and deciding on thresholds above or below which concentration is deemed too high or substitutability too low. Precisely because it is more thorough and comprehensive than previous attempts in this literature, Mejean and Rousseaux (2024) illustrates the intrinsic limitations of this approach.

- We have so far no systematic way of telling which imports are genuinely critical. Focusing on upstream products and pharmaceuticals may miss other products (such as computer chips), the accidental scarcity

of which would cause large economic or non-economic losses. Meanwhile, some upstream products and pharmaceuticals might not be critical if they can be substituted by other products.

The European Commission's (2021) approach of designating whole 'ecosystems' (sectors, such as health, energy, digital, electronics and aerospace) as critical, seems even more problematic, both because many products in these sectors are not in fact critical and because products outside these sectors that may well be critical could be missed (for example, most of Mejean and Rousseaux's upstream products).

- As both Mejean and Rousseaux (2024) and Bown (2024) emphasised, data limitations imply that import dependence measures do not reflect indirect exposure. If the EU has an import exposure to a country that is itself import dependent on China for this product (or an important intermediate input), then direct import dependence on China might significantly understate total import dependence.
- The final lists can be very sensitive to how the cut-offs are set, which is somewhat arbitrary. For example, whether relationship substitutability thresholds are set at the twenty-fifth, fiftieth or seventy-fifth percentile adds or subtracts large shares of products from the sample.
- Supplier relationships in normal times tend to be relatively long (25 and 19 months, respectively, for the seventy-fifth and fiftieth percentiles in Mejean and Rousseaux's sample). This implies that unless replacement duration is significantly shorter in a crisis, an import interruption could be very damaging even for products that are relatively non-relationship-sticky in normal times.

But the impact of a forced interruption on the replacement period could go both ways. Firms seeking to replace suppliers under duress would have incentives to do so much faster than in normal times. However,

finding new suppliers when many other firms are trying to do so could take longer and/or result in price jumps for scarce supplies, which could be very damaging.

3.2 Risk from export disruptions and from decoupling

Another problem is that an approach focused on reducing dependence on critical imports does not consider disruptions to exports, which could equally have a macroeconomic impact if they were highly concentrated in any one destination country.

For example, 20 percent of EU exports got to the US, 13 percent to the United Kingdom and 9 percent to China; while 41 percent of UK exports go to the EU, 21 percent to the US and 5 percent to China. Furthermore, just as import dependency numbers ignore indirect exposures, so do export shares. For example, direct UK export dependency to China is only 5 percent, but the UK's indirect exposure via the EU alone could be larger if UK products are part of the value chains of goods ultimately destined for the Chinese market.

While demand shocks via exports are a standard risk of trade integration, geopolitical conflict can take this risk to an entirely new level. First, hitting the exports of specific industries through import bans, high tariffs or social-media campaigns can be a form of geopolitical coercion. As reported by Bown (2024) and McCaffrey and Poitiers (2024), there are numerous examples of Chinese coercion of this type.

This type of coercion is typically not macroeconomically critical, but may seek to exploit the lobbying power of groups that are hurt, as well as internal divisions (in the case of the EU, this may include divisions across member states). Second, deliberate economic sanctions can of course have a much greater impact than swings in export demand triggered by normal economic fluctuations, or even than an economic crisis in a trading partner.

Baqae *et al* (2024) simulated the impact of a decoupling from China in a trade model with 43 countries and 56 sectors, in the form of a complete stop in trade between a 'Friends' bloc comprising the G7 countries, Spain, the Netherlands and an artificial country comprising the rest of the EU, and a 'Rivals' bloc including China and Russia, on the assumption that trade continues both within these blocs and with the rest of the world.

As might be expected, the short-term effects are substantial, with German output calculated to decline by 3-5 percent of GDP. At the same time, the simulations suggest that the cost of a complete decoupling from China would be relatively low if done slowly over time: around 1.25 percent of GDP for Germany and Japan, while the US and the remaining European countries would suffer in the range of 0.47 percent to 0.69 percent of GDP.

The intuition behind this result is that the welfare costs of an end to trade integration between China and the 'Friends' group are mitigated by the fact that the Friends continue to trade with each other and with the 'Neutrals', and that these groups are sufficiently large and diverse to preserve most of the gains from trade.

3.3 Putting it all together

Combining the insights of Baqae *et al* (2024) and Mejean and Rousseaux (2024) with the assumption that external economic risks include not only exogenous shocks to trade but also coercion, and possibly a wider trade disruption involving China, leads to the following conclusions.

First, there is a strong case for de-risking concentrated exposures to critical imports, by either diversifying supply or making preparations to mitigate disruption. However, identifying such products turns out to be very difficult, mainly because it is hard to assess the criticality of products, ie. the welfare losses inflicted by a shortage or price spike. While we know that some products are critical – chips, energy, some pharmaceuticals, some minerals and some upstream inputs – we do not know what other products are critical.

A good way to start is by de-risking the products known to be critical. Because we don't know how long it would take to find new suppliers in a crisis, or how price sensitive these imports might be to a loss of the main supply source, products known to be critical should be de-risked even if their relationship stickiness in normal times is fairly low.

The identification of such products obviously needs to take into account the costs as well as the benefits of de-risking. Take the example of solar panels and their components, often cited as a prime de-risking candidate because of their importance in the green transition and China's overwhelming global market share (63 percent, according to Mejean and Rousseaux, 2024).

However, the short-term economic costs to the EU of a complete stop in solar panel imports from China would be tiny (hitting mostly installation services, while leaving the solar capacity unchanged). Unlike imported gas from Russia, disruption to solar panel imports from China would have no direct impact on the energy supply, although it would affect the increase in installed energy capacity and would raise the cost of replacing panels that become obsolete.

Hence, the main benefit of de-risking Chinese solar panel imports would be insuring against a (possible) disruption to the energy transition to renewables, which could sharply raise solar-panel prices. This needs to be weighed against the certain price impact of a decision to diversify away from Chinese solar imports and purchase panels from more expensive sources, which will slow the green transition.

Second, the de-risking of trade dependencies cannot be the only layer of protection against import disruption, because it will never be possible to identify and de-risk all critical products. Beyond trade de-risking, it is hence essential to strengthen the resilience of European economies against import shocks, whatever their source. This is

an argument for a better-functioning and more flexible single market, and for the broadening of international trade relationships through free-trade agreements with friendly countries.

Third, it is important to de-risk export dependencies as well as import dependencies. For specific products, this could be done in three ways: by deterring coercion (as the EU's new anti-coercion instrument, discussed in the next section, attempts to do); by offering EU producers incentives to diversify export destinations, particularly to reduce concentrated exposures to China; and through insurance mechanisms that reduce ex post the impact of export disruptions to specific products.

The latter must of be designed in a way that avoids moral hazard, ie. does not encourage concentrated exposures ex ante. We return to possible instruments for export diversification and ex-post protection in the next section.

Fourth, there is a role for deterring coercion, rather than just reducing vulnerability to it. This is because de-risking of export and import dependencies will never be complete – and should not be complete, given that de-risking needs to be weighed against the benefits of trade specialisation and continuation of trade with China and other countries that may use coercion.

Fifth, there is the question of whether the EU should reduce its overall trade integration with China to soften the blow of sudden trade disruption triggered by a geopolitical confrontation. According to Baqaee *et al* (2024), the cost of a gradual reduction in trade integration with China would be small for most EU countries, even if trade integration is reduced all the way to zero.

Even for Germany, where the cost of complete decoupling from China would not be small, the cost of a partial reduction of trade integration – for example, reducing export and import shares by one third – would be small if

pursued gradually. On this basis, policy measures to encourage a pre-emptive reduction in trade integration would be justified if all three of the following conditions are met:

1. The probability of a very costly sudden trade disruption is considered to be sufficiently high, and
2. Firm-level diversification of trade is not, by itself, sufficient to engineer this pre-emptive de-risking;
3. Targeted (ie. firm- or sector-level) export diversification efforts do not have a substantial impact in terms of reducing aggregate import dependency.

There is significant uncertainty around each of these points. With regard to points two and three, Bown (2024) found that trade diversion triggered by US tariffs on China and Chinese retaliation has further increased EU trade integration with China. With fresh US legislation directed against Chinese imports, such as the Inflation Reduction Act, this effect might continue.

At the same time, the combination of a heightened sense of the risks created by concentrated exposure to China and the structural slowing of the Chinese economy might push in the other direction. Furthermore, targeted de-risking efforts may have an aggregate impact, particularly if they reduce concentrated exposures to China in major sectors for the EU economy, such as the car industry.

Finally, it is important to highlight two trade-related economic-security concerns that are the intellectual cousins of the risks identified and quantified by Baqaee *et al* (2024) and Mejean and Rousseaux (2024), but are not directly discussed in those papers.

The first is the obvious risk, already mentioned in section 2, of a broad disruption to European trade with the United States in the event of a return of Donald Trump to the US presidency³. Given the much larger share of US imports and exports in European trade, this could hit Europe even harder than a disruption to trade with China.

While Baqaee *et al* (2024) did not directly simulate such a shock, this is suggested by their 'EU autarky' scenario, which has substantial costs even in the long run, ie. even when phased-in slowly (a permanent consumption loss of 9 percent of GDP). It follows that de-risking the trade relationship with the US by reducing trade integration might make sense only if an even more catastrophic sudden decoupling from the US is viewed as likely.

However, a disruption to trade with the US would likely take the form of a (limited) tariff war rather than a trade embargo. This argues against a pre-emptive reduction in trade with the US. Instead, the EU must be politically prepared to fight a trade war with the US, if and when a returning President Trump decides to start such a war.

A second related concern is that exposures to China and other countries that might engage in coercion against EU firms could take the form of asset expropriation – in particular, expropriation of production sites. By removing an important source of foreign revenue and profits, this could impact EU firms in much the same way as an import prohibition.

However, the risk would show up *ex ante* in the form of a concentration of profit sources, rather than concentrated exports, and the remedy could involve diversification of production sites and profit centres, rather than diversification of exports, as along with increases in capital buffers.

Summing up, our analysis results in five main calls for European policy action:

1. Reduce import dependency for critical products;
2. Diversify foreign revenue sources and/or strengthen firm resilience against potential disruption to foreign demand, asset expropriations or payment controls impeding profit repatriation;
3. Deepen the EU single market and make it more flexible;
4. Deter economic coercion of any kind, whether through imports or exports, or through other means such as expropriation;
5. Possibly, limit overall trade dependency (and particularly export dependency) on China, at the aggregate level.

Achieving these objectives requires policies that are effective, that balance costs and benefits, and that minimise risks of unintended consequences. We next examine what such policy might look like concretely, starting with those the European Commission has already started implementing.

4 How to de-risk

As the outbreak of COVID-19 revealed dangerous vulnerabilities and called for a reassessment of the EU's international economic relations, rising pressure from the US under the Trump presidency and the increasingly aggressive behaviour of the Chinese government focused the attention of European policymakers on the threat of economic coercion and prompted a redefinition of the toolkit with which they could respond.

The EU took a series of major initiatives to strengthen its economic resilience and to equip itself to better counter malicious behaviour by economic partners (Box 1).

Box 1. Additions to the European external economic security policy toolkit

The EU has adopted or is discussing a series of new initiatives, which complement standard trade defence instruments⁴ (anti-dumping or anti-subsidy duties consistent with the World Trade Organisation Agreement on Subsidies and Countervailing Measures, for which the EU has developed procedures that are in the process of being strengthened):

The Foreign Subsidies Regulation⁵ (FSR, in force since July 2023) introduced new tools to tackle foreign subsidies that cause distortions and undermine the level playing field in the areas of mergers and acquisitions and procurement (see Anderson, 2020).

The European Chips Act⁶ (in force since September 2023) is intended to bolster Europe's competitiveness and resilience in the semiconductor sector by supporting large-scale manufacturing projects via somewhat more permissible subsidy rules compared to a conventional Important Projects of Common European Interest (IPCEIs, investment projects involving crossborder collaboration and state aid from several EU countries). It also entails measures aimed at mapping and monitoring the semiconductor supply chain to assess ex-ante risks of potential import disruption but also envisions broader powers for the Commission to act in a crisis, including as common purchasing body (see Poitiers and Weil, 2022).

The Net Zero Industry Act (NZIA)⁷ and related parts of the Temporary Crisis and Transition Framework⁸ (TCTF) are intended to strengthen the European ecosystem of clean-tech manufacturing. The NZIA includes measures intended to accelerate permitting, while the TCTF allows member states to provide subsidies to clean tech manufacturing projects which can match subsidies of third countries under certain conditions (see Tagliapietra *et al* 2023).

The Critical Raw Materials Act⁹ (CRMA) aims to tackle the issue of highly concentrated imports of certain raw materials that are of strategic importance. It seeks to boost domestic mining, refining and recycling of such raw materials through accelerated permitting procedures as well as measures related supply chain monitoring, stockpiling and improving the recyclability of CRMs (see Le Mouel and Poitiers, 2023).

The Health Emergency Preparedness and Response Authority (HERA)¹⁰ that was launched in September 2021 has as part of its mission to improve the resilience and availability of medical supplies. It aims to achieve this mission by identifying key supply chain bottlenecks and addressing them through measures such as coordinated stockpiling and joint procurement.

The Anti-Coercion Instrument (ACI, in force since December 2023) is intended to provide to the EU a wide range of possible countermeasures when a third country exercises coercion. It gives the EU extensive powers to deploy countermeasures in response to an act of foreign coercion, including the imposition of tariffs, restrictions on trade, services and intellectual property rights, and restrictions on access to foreign direct investment and public procurement.

The Internal Market Emergency and Resilience Act¹¹ (IMERA, formerly Single Market Emergency Instrument, on which agreement was reached between the Parliament and the Council in February 2024) aims at ensuring continued access to critical goods and services. Although primarily intended to respond to COVID-type emergencies, it also covers disruptions to the single market triggered by conflicts, such as the war in Ukraine.

Commission initiatives on inward and outward investment screening and the coordination of export controls were proposed in January 2024. The coordination mechanism for inbound investment screening is in place since 2020, but it mainly commits member states to put an investment screening into place. The 2024 economic security package includes an update of this scheme, but remains vague on the prospect of outbound investment screening.

Limitations notwithstanding, the EU has assembled an impressive package that expresses a change of attitude. Considerable effort has gone into addressing critical import dependencies, giving the European Commission powers to deter coercion (the Anti-Coercion Instrument, application of which must be triggered by a majority in the Council), and preventing a breakdown of the single market in an emergency (Internal Market Emergency and Resilience Act, IMERA). However, these efforts fall well short of meeting the policy objectives listed at the end of section 3.

First, and most obviously, export dependencies have been largely neglected. Aside from the intention to negotiate additional trade agreements with friendly nations, there is no instrument to encourage export diversification and/or reduce concentrated export dependence on China.

Second, instruments to address import dependencies remain imperfect and incomplete:

- While the European Chips Act, Critical Raw Materials Act (CRMA) and Health Emergency Preparedness and Response Authority have plausible economic-security justifications, the Net Zero Industry Act covers a broad swathe of goods that mostly fail to meet the definition of critical good proposed in section 3¹².

Many other goods that might be critical, such as the upstream products with high import concentration identified by Mejean and Rousseaux (2024), remain outside the scope of any of these acts. There is no framework for identifying goods that may be genuinely critical, but are not part of any of the four identified product categories.

- EU-level instruments to reduce dependency on these goods are for the most part weak. EU-level funding for industrial policy directed at expanding EU capacity is small (Chips Act) or non-existent (CRMA). Trade policy

instruments rely mainly on increasing market or investment access for EU companies via new or expanded trade agreements.

The main channel through which these acts operate is by giving EU countries greater leeway to subsidise investment in the areas covered by these acts. While this may lead to occasional successes (investment in a critical area that would otherwise not have happened), there is no governance structure to ensure that critical dependencies are reduced in a timely way.

Furthermore, the approach mostly benefits EU countries that have the fiscal resources to provide large subsidies, and large incumbents, which have the clout and scale to lobby for subsidies and participate in IPCEI consortia.

Third, the Commission has so far missed the opportunity to rally members states behind the push to increase resilience by deepening the single market. This would help the EU resist external shocks and coercion – whatever the source and the channel – by allowing faster re-direction of trade and supply.

Banking and capital markets union would raise economic security both by funding new productive capacity and by improving automatic risk-sharing, better risk sharing across intra-EU borders would in turn make the EU more cohesive, and would make it harder to exploit internal divisions.

A more systematic attempt to strengthen economic security could involve the following elements.

1. A process for identifying and regularly reviewing critical import dependencies, based on the criteria developed in section 2, and better data (Mejean and Rousseaux, 2024; Bown, 2024). Better data may require

Table 2. Economic security objectives and available instruments

Objective	Available Instruments	Problems
Reduce import dependency for critical products	Important Projects of European Interest (IPCEIs) European Chips Act Critical Raw Materials Act Net Zero Industry Act and related sections of the Temporary Crisis and Transition Framework for State Aid Health Emergency Preparedness and Response Authority (HERA)	Imperfect match between critical products and targeted products. Lack of cost-benefit analysis Weak EU-level instruments Weak governance - actions and funding rely mostly on member states and lobbying by large firms
Diversify concentrated export exposures at the firm level	None, except for intention to negotiate additional free trade agreements with 'friends'	Lack of instruments leaves EU vulnerable to coercion
Deepen the single market and make it more flexible	Internal Market Emergency and Resilience ACT (IMERA)	No economic security-motivated deepening agenda
Deter economic coercion	Anti-Coercion Instrument	Council majority required to allow the Commission to deploy ACI powers
Limit overall trade dependency on China's market	None, except for intention to negotiate additional free trade agreements with 'friends'	Economic cost of sudden decoupling may deter appropriate action by the EU

Source: Bruegel.

more systematic due diligence on the part of European firms in relation to their supply chains, from an economic-security perspective.

2. Stronger governance and better funding for a competition-friendly EU-level industrial policy. This could involve:

- i. An institution similar to the US Advanced Research Projects Agencies (ARPA) to develop technology in areas that are identified as critical (Tagliapietra et al, 2023; Pinkus *et al* 2024).
- ii. Where the technology exists already, allocation of production or investment subsidies through auctions (along the lines of auction mechanisms that are currently used to tender renewable energy capacity).

These mechanisms would not necessarily require large funding. US ARPA budgets are relatively modest (in the single digit billion range), while the auction process could be co-funded by EU countries, along the lines of the 'Auctions as a Service' concept proposed by the European Commission in relation to climate goals (European Commission, 2023).

3. The use of WTO-consistent trade instruments to incentivise import and export diversification. These could include:

- i. On the import side: countervailing duties, justified by the presence of a foreign subsidy, that are focused on an area in which there is a critical import dependency on the country that is responsible for the subsidy;

ii. On the export side, a duty levied on EU exports to countries for which export exposure is considered excessive. The latter could be politically difficult, but would be fully consistent with WTO rules¹³.

4. As an alternative to export taxes, requiring exporters that are highly dependent on a specific export destination to buy publicly provided political risk insurance that would defray the costs of ex-post public support in the event of coercion (and would discourage exports to the destination in question).

5. Incentivising European firms that are highly dependent on production and profits in foreign jurisdictions to diversify production, structure their operations or hold capital to enable them to survive an expropriation (or controls that impede profit repatriation).

6. To further increase the deterrence value of the ACI, allowing the Commission to trigger retaliation under the ACI without requiring confirmation by a majority of member states.

7. Preparing for economic coercion through financial channels rather than just trade channels. While European firms have not recently been at the receiving end of such coercion, this may change if Donald Trump returns to the White House.

8. Invigorating the single market for economic security rather than just for efficiency reasons. ■

Jean Pisani-Ferry is a Senior Fellow at Bruegel, Beatrice Weder di Mauro is President of the Centre for Economic Policy Research, and Jeromin Zettelmeyer is Director of Bruegel

Endnotes

1. See, for example, *The Economist*, 'China punishes Australia for promoting an inquiry into covid-19', 21 May 2020; and Andy Bounds, 'Lithuania complains of trade 'sanctions' by China after Taiwan dispute', *Financial Times*, 3 December 2021.
2. The European Commission (2023) uses a definition which also includes "risks related to physical and cyber security of critical infrastructure" and "risks related to technology security and technology leakage". We would classify this as part of national security (within the 'other' category in Table 1) rather than economic security.
3. Trump has announced that he would implement a 10 percent across-the-board tariff. This would affect EU exports significantly, in addition to US importers. See Charlie Savage, Jonathan Swan and Maggie Haberman, 'A New Tax on Imports and a Split From China: Trump's 2025 Trade Agenda', *New York Times*, 26 December 2023.
4. See European Commission, 'Trade defence', undated.
5. See European Commission, 'The Foreign Subsidies Regulation in a nutshell', undated.
6. See European Commission, 'European Chips Act', undated.
7. See European Commission, 'Net-Zero Industry Act', undated.
8. See European Commission, 'Temporary Crisis and Transition Framework', undated.
9. See European Commission, 'Critical Raw Materials Act', undated.
10. See European Commission, 'Health Emergency Preparedness and Response (HERA)', undated.
11. Final compromise text agreed in February 2024 available at <https://data.consilium.europa.eu/doc/document/ST-6336-2024-INIT/en/pdf>.
12. Namely, photovoltaic and solar thermal, onshore wind and offshore renewables, batteries and storage, heat pumps and geothermal energy, electrolysers and fuel cells, sustainable biogas and biomethane, carbon capture and storage (CCS) and grid technologies.
13. Article XI of the 1994 General Agreement on Tariffs and Trade prohibits quantitative export restrictions (with certain exceptions) but permits "duties, taxes or other charges". See https://www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_art11_oth.pdf.

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How the Ukraine war changed the global sanctions landscape

The sanctions imposed have created significant uncertainty and complex compliance challenges. Brent Connor, John Pearson, Henrietta Worthington and Jaime Rosenberg write that compliance processes need to be in order

The sanctions measures introduced in response to Russia's invasion of Ukraine have been unprecedented. Since the invasion on 24 February 2022, nations and regions including the EU, UK, US, Australia, Canada, Japan, New Zealand and others have worked together to develop a **complex toolbox of measures** with the aim of *"cutting off funding for Putin's illegal war from every angle."*

The global response is notable for many reasons, including the speed of implementation, the aligned approach and the novel sanctions introduced. The coordinated actions have also had a significant impact on businesses that are affected by the measures.

Indeed, the speed and expansive nature of the sanctions regimes imposed in response to the Russian invasion, whilst lauded by many, has created significant uncertainty and complex compliance challenges for businesses.

Compliance challenges and effects – speed and breadth of sanctions

To date, the EU has introduced thirteen packages of sanctions against Russia. The bloc was able to act extremely quickly in spite of the number of member states required to agree on measures, which has slowed down the implementation of such regimes in the past.

The nature of the situation meant that the sanctioning jurisdictions introduced wave after wave of sanctions, in addition to amendments and derogations to the existing sanctions. Consequently, many companies were left rushing to understand and adopt the measures within the tight timeframes imposed for implementation.

Similarly, the US has implemented an extensive array of sanctions and export controls. These measures have included 'primary sanctions' that require compliance by US persons, and secondary sanctions that bar entities regardless of location from doing business with individuals and entities designated on the US lists.

Unlike many regulatory requirements which provide extended grace periods for companies to implement necessary amendments to their internal processes, many of the sanctions restrictions came into immediate effect or provided expedited grace periods.

A consequence of the swift way the regimes have been introduced is companies failing to understand their obligations and of certain measures having unintended consequences. As a result, regulators have seemingly

It is clear that we have entered a new era of sanctions: the global response to the Russian invasion of Ukraine prompted the G7 and its allies to apply significant pressure on Russia via sanctions and to develop previously untested measures

found themselves on the backfoot publishing clarifications, derogations and extended guidance to help companies navigate through the requirements.

For instance, the UK's publication of its [legal services restrictions](#) caused a stir in the legal community prompting the UK's Law Society to [issue a briefing](#) to Parliament stating that the restrictions imposed by the regulation would actually "*negatively impact the ability of solicitors to support businesses to comply with the complex web of sanctions legislation and enable them to cut ties effectively with Russia*" (emphasis added). Ultimately, a general licence was issued to permit the provision of legal services in relation to sanctions imposed by any jurisdiction.

However, the perceived 'trial and error' approach has also had positive effects and has led to an increased information flow between the private sector and regulators. This approach has allowed regulators to better understand how regulations impact specific industry sectors and to work more collaboratively in their development of new measures.

Sanctioning jurisdictions continue to publish guidance, and expanded guidance by sector, with FAQ sections in a way that has not been seen previously, particularly in the EU and the UK. The US has issued 100 new FAQ documents including defining terms, and has processed hundreds of requests for licences and interpretive guidance.

The aim of the guidance is to help businesses avoid compliance pitfalls. In practice, transactions parties are placing significantly more weight on the guidance than they did prior to 2022.

In addition to expanding guidance tools, the [US has issued a business advisory](#) "*to help ensure that businesses, individuals, and organisations have the information necessary to inform their considerations regarding the range of*

heightened risks associated with doing business in or engaging in transactions involving the Russian Federation or Russia-occupied territories of Ukraine.”

This includes activities that involve the Russian military-industrial base that were not explicitly addressed by sanctions, export controls or other trade restrictions providing clarity for US entities to comply with the extensive new sanctions.

Why new measures pose fresh challenges

Over two years on from the invasion, it is clear that despite the wide-ranging measures introduced, there is still significant leakage or diversion of goods to Russia. This has led to a focus on anti-circumvention and the introduction of novel sanctions measures. In particular, the UK and EU are concerned with monitoring how high priority items are still able to reach Russia.

From a US perspective, although comprehensive sanctions are not a new concept to US regulators (considering the US sanctions programmes including Cuba, Iran, and North Korea), the US government has not issued a comprehensive sanctions programme against Russia to date because of its concern of entangling Western allies that are still purchasing Russian oil and gas.

The US Russia sanctions programme is consequently extremely complex because it is not comprehensive, with the US's fragmented approach targeting some sectors of the Russian economy, but not others.

It has become clear that sanctions restrictions have forced companies and individuals to seek alternative routes to transfer goods to Russia, thereby undermining the impact of the restrictive measures. Indeed, exports of high priority items to Russia's neighbours **have increased enormously**, and have an increased risk of re-export to Russia.

Recent waves of sanctions have therefore focused on anti-circumvention measures to try and identify how circumvention is taking place, including increased notification obligations on parties. For example, the EU's recent introduction of a 'No Russia' clause requiring for EU exporters to contractually prohibit the re-export of certain sensitive goods to Russia.

This requirement was specifically introduced *"to combat the circumvention of EU export bans"* and the EU hopes that the notification of any breaches will assist in identifying how high priority items continue to be channelled to Russia.

Alignment between sanctioning jurisdictions

Whilst the G7 nations have moved together on their approach to sanctions for some time now, the Russian sanctions were significant in the unified global approach: nations are increasingly moving in lockstep to implement regimes, multiplying the impact of economic measures.

Despite the overall cohesive approach adopted by the G7 countries in response to the Russian invasion, the surfeit of new sanctions has created significant compliance challenges for international companies and companies that do business overseas as there are inherent underlying differences between the aligned regimes.

Enforcement

When navigating the fragmented sanctions landscape, in practice many companies facing multiple regimes have made the commercial decision to prioritise the US requirements, usually on the basis of perceived appetite for enforcement.

Historically, the US has been the most aggressive in implementing and enforcing economic sanctions and export controls. In 2023 alone, the Office of Foreign Assets Control (OFAC) enforced 17 penalties against entities who violated US sanctions totalling USD 1,541,380,594.08 in fines.

It enforced four penalties totalling USD 8,085,195.86 in fines under its Russian sanctions regime in 2023. OFAC's continued enforcement demonstrates the US commitment to compliance and protecting the US financial system from bad actors. With the release of numerous compliance guidance, OFAC is committed to working with the private sector to further promote the understanding of, and compliance with, sanctions requirements.

In contrast to the US, in the UK, no fines have been issued to date as a result of breaches of the Russian sanctions regime, which has led the Chair of the Foreign Affairs Committee [to query](#) whether it's *time "to ask difficult questions about the efficacy of [the Office of the Superintendent of Financial Institutions (OSFI)]'s enforcement capacity."*

Since it was given the right to impose monetary penalties in 2017, OSFI has issued 10 fines totalling £22 million. However, it is coming under increasing pressure to use its fining powers. In May 2024, OSFI updated its sanctions enforcement and monetary penalties guidance, summarising how it deals with breaches.

In the EU, enforcement is the responsibility of each member state and has therefore been patchy. However, the EU, like the UK, has shown its appetite to increase enforcement across the bloc. In March 2024, the [EU approved rules](#) aimed at harmonising enforcement through a new EU Directive that entered into force on 19 May 2024.

The new rules criminalise sanctions violations and introduce a common definition of, and minimum penalties for, sanctions violations. The EU has also emphasised the importance of ensuring that judges are *"able to issue dissuasive fines"* signalling that the bloc may be moving towards a US style enforcement approach.

Increasing use of thematic sanctions

The scope of thematic sanctions has evolved hugely since the US enacted the Global Magnitsky Human Rights Accountability Act in 2016. Thematic sanctions regimes now encompass chemical weapons and non-proliferation, corruption, cyber-attacks, human rights, narcotics and terrorism.

Thematic sanctions regimes give the sanctioning jurisdiction the authority to impose targeted sanctions on individuals or companies anywhere in the world who have been involved in the specified act (eg. human rights abuses or drug trafficking). Globally, there were [1,044 thematic sanctions designations made in 2023](#), which is nearly double the previous year.

The increase in the use of thematic sanctions creates compliance issues similar to those addressed previously in the context of Russian sanctions, including, for example, issues of breadth, novel measures and coordination in approach. A recent example of a novel thematic sanctions measure is the US's proposed [Fentanyl Eradication and Narcotics Deterrence Off Fentanyl Act](#) (or the FEND Off Fentanyl Act).

If signed into law, the FEND Off Fentanyl Act will provide a framework for the US to sanction individuals and entities responsible for trafficking fentanyl and other illicit opioids.

Recently, OFAC and OFSI coordinated to implement sanctions under a thematic sanctions regime (namely the cyber-attacks framework). The [US and UK's aligned actions](#) targeted a company and individuals tied to the China state-affiliated hacking group named Advanced Persistent Threat Group 31 (APT31) as a result of its *"malicious cyber campaigns targeting democratic institutions and parliamentarians."*

The UK revealed that it is highly likely that the group hacked the UK Electoral Commission between 2021 and 2022, and that they attempted reconnaissance activity against UK parliamentarians in 2021. The [US identified malicious cyber activity](#) by the group targeting certain critical infrastructure sectors over a period from 2010 to 2020.

The sheer breadth of the sanctions has increased hugely, and the number of designations has grown exponentially as a result. The nature of thematic sanctions provides that any bad actor across the globe can become subject to sanctions. Consequently, companies can no longer afford to just avoid dealing with high-risk jurisdictions, but rather must ensure that they heighten their due diligence practices.

It is clear that we have entered a new era of sanctions: the global response to the Russian invasion of Ukraine prompted the G7 and its allies to apply significant pressure on Russia via sanctions and to develop previously untested measures.

More information is flowing to sanctioning authorities that will allow them to develop their regimes further. Businesses will need to stay vigilant, ensure their compliance processes are in order and adapt to any further changes. ■

Brent Connor is a Shareholder, John Pearson a Partner, Henrietta Worthington a Solicitor, and Jaime Rosenberg an Associate, all at Vedder Price

Rippling out

Biden's tariffs on Chinese electric vehicles will impact Europe. Uri Dadush on how the US approach diverges from that of the EU, which is building a case for countervailing duties under WTO rules

On 14 May, United States President Joe Biden announced new tariffs on China under Section 301 of the Trade Act of 1974 (unfair trade)¹. The additional tariffs – on top of earlier tariffs, including those imposed by President Trump – cover imports from China in several sectors, including semiconductors (tariff rises from 25 percent to 50 percent), solar cells (from 25 percent to 50 percent), electric vehicle batteries (from 7.5 percent to 25 percent) and electric vehicles (EVs; from 25 percent to 100 percent).

Most of these products are already subject to high duties or extensive trade-remedy measures, so the amount of imports from China covered by the new tariffs, including EVs, is small at \$18 billion. In fact, the US imports essentially no EVs from China.

However, it is a sector of great concern to the European Union, which in October 2023 opened an anti-subsidy investigation into Chinese EVs, which may trigger countervailing duties². The US move may therefore have implications for the pending EU decision on countervailing duties on China.

An extraordinary decision, driven by domestic politics

The US decision on Chinese EVs is extraordinary in four respects:

- First, the 100 percent tariff is prohibitive. Ostensibly justified by China's own subsidies, it would imply that half of the cost of Chinese EVs is paid for by government funds, far beyond the range of other estimates (Transport & Environment, 2024).
- Second, unlike previous protection episodes, such as when the US was responding to the threat of Japanese car manufacturers³, there are virtually no Chinese car imports today, and US manufacturers, especially General Motors, already have large footprints in China, whereas they were marginal in Japan. Though GM

sales in China have declined recently, for more than a decade until 2023, China was a profit engine and the company's top sales market⁴.

- Third, the EV tariffs depart from the US emphasis on national security to adopt anti-China measures (unless one believes that EVs are meandering Chinese spies), suggesting that all sectors are now in play.

The tariffs also quash any notion that the US intends to abide by World Trade Organization rules. These two considerations, by themselves, increase policy uncertainty globally and are bound to have a dampening effect on international trade and investment

- Fourth, the measure runs counter to the Biden Administration's green transition goals, which include large tax breaks for EVs, intended to lower the cost for consumers of green alternatives.

The decision on EVs and its timing are strictly political and reflect the extraordinary power of the United Auto Workers union in swing states in the run-up to the US presidential election. The decision is nevertheless a surprise in the light of recent efforts at China-US rapprochement, including exchanges at senior military level, and talks on AI and climate change.

China will be affronted and many China-dependent US firms, which had hoped for tariff reductions, will be disappointed. The decision is, however, consistent with US Trade Representative Katherine Tai's 'Worker Centric' trade policy which claims to place workers' interests ahead of those of firms⁵.

Global impact

The immediate economic impact of the tariffs will be minimal at the macro level, whether on quantities, prices, or exchange rates; \$18 billion is tiny relative to the size of the two economies, and even the \$500 billion that China exported to the US in 2023. Even so, they will hurt some Chinese companies and US importers. The effect on US consumers and prices will be minimal and take the form of lost future opportunities rather than immediate cost, especially in relation to EVs.

China's retaliation (it always retaliates) will be proportionate and limited. If the past is a guide, retaliation will affect mainly some US agricultural exports, which can be sourced easily elsewhere, and US exporters will be compensated for their losses in China.

But even if the Chinese government does not retaliate against US car exports and investments in China (which it continues to court), the Chinese consumer is unlikely to respond well to America's extreme measure on EVs when he or she chooses the next car to buy.

Perhaps more worrying is the further escalation of tensions with China that the tariffs represent – a dangerous trend with many repercussions. It may undermine any Chinese willingness to play a moderating influence on the war in Ukraine.

The tariffs also quash any notion that the US intends to abide by World Trade Organization rules. These two considerations, by themselves, increase policy uncertainty globally and are bound to have a dampening effect on international trade and investment (Al-Thaqeb and Algharabali, 2019).

The US approach diverges from that of the EU, which is building a case for countervailing duties under WTO rules. Although the outcome may also be new tariffs, in the EU there will have been due process based on evidence. But politically, prohibitive US tariffs place enormous pressure on the EU to apply its own.

Even though there is no immediate threat of trade diversion, EU firms such as Stellantis, and unions that lobby for tariffs, will argue that Chinese EV exporters, cut off from the US market, will focus on the huge EU market instead. Though EU firms are still the largest exporters of EVs from China to the EU by a wide margin, the share of Chinese indigenous manufacturers is rising rapidly.

The adverse effect on trade relations of the new tariffs will extend beyond trade under the WTO to encompass trade under regional agreements. This is because US politicians are determined to avoid China-sourced products coming

in through the back door – strict rules of origin are already there to prevent that – and to prevent the products of Chinese-invested companies from entering.

In their view, even if batteries, EVs and semiconductors are manufactured by a Chinese-invested company in a US trading partner, and are entitled to tariff-free treatment under a regional agreement, they should be discouraged.

This also applies to Chinese companies producing in the US⁶. Mexico and Morocco are two examples of US regional trade agreement (RTA) partners that host Chinese manufacturers of batteries and soon of EVs, where frictions are bound to rise.

Even though the EU remains more open to Chinese producers on its territory than the US (eg. BYD in Hungary, CATL in Germany and Hungary), it will face a similar challenge with its RTA partners if, as expected, it applies its own tariffs on Chinese EVs.

These tensions among parties to RTAs, together with China's retaliation against EU and US EV tariffs, is likely to mark this episode as a classic example of protectionist contagion.

A separation of Chinese and US value chains?

The EV value chain is destined to increase greatly in importance to mitigate climate change. From the standpoint of US industrial policy, a big question raised by the prohibitive tariffs on Chinese EVs and by the accompanying resistance against hosting Chinese producers is whether a US EV/battery value chain entirely separate from China is sustainable and realistic.

The US is undoubtedly capable of developing such a chain, but can it do so at reasonable cost and without falling behind in quality and efficiency? On the answer to this question rests the calculation of long-term consumer losses from the tariffs against the counterfactual, the speed of the US green transition, the burden on government finance from the possibility of more subsidies, and even the solvency of US car companies.

Even a cursory examination of China's current competitive advantage in EVs suggests that the answer to the question is no. China produces almost twice as many EVs as the EU and US combined, the share of EVs in new car registrations is rising rapidly, and it has reportedly moved ahead at the combined quality/price/technology frontier⁷.

The latest BYD Model, the Seagull, sells in China at slightly less than \$10,000, and has been highlighted as an illustration of China's competitiveness⁸. Tesla founder Elon Musk has been openly pessimistic about the West's ability to compete with Chinese cars⁹.

China's cost advantage arises from a combination of scale, advanced and lower-cost battery technology, availability of IT and AI expertise, lower labour costs, and intense competition in the Chinese market, with dozens of domestic and foreign producers active.

Central and provincial government subsidies still play a role, and their extent is what the EU investigation will evaluate. The only available and presumably reliable numbers on subsidies received are those declared by Chinese publicly traded companies such as BYD, and are small relative to turnover or value added¹⁰.

China's EV exports increased by over 60 percent in 2023 to reach 1.2 million units, directed mainly at Europe, Mexico and several emerging markets in Asia. Since the biggest Chinese EV manufacturers and their battery suppliers

have developed distinctive assets (brand, technology and design), they are now able to set up manufacturing and distribution channels overseas, in markets including Thailand, Indonesia, Australia, Morocco, Mexico and Hungary. Chinese EV manufacturers are also rapidly gaining market share in China, where competitors are increasingly struggling.

As EVs become even more established worldwide, the scale advantage of the most successful Chinese producers over US-based producers will only increase, as will their capacity to target individual markets with customized products on a common platform.

Finally, it is important to note that the largest US car companies, Ford and General Motors, are not in the best shape to compete in the intensifying EV market. Standard and Poor's rates Ford's and GM's long-term debt at BB+ and BBB respectively, just below and just above investment-grade.

The market capitalisations of BYD and Xiaomi, the two largest Chinese EV producers, are \$86 billion and \$62 billion respectively, while those of GM and Ford are both around \$50 billion.

The EU's strategy

Should the EU adjust its policies in the light of the new Biden tariffs, and if so, how? Note that since there will be no surge of Chinese EVs diverted from the US market, it is not a given that the EU needs to alter its course.

The EU's trade strategy on EVs must pursue six main objectives: 1) a fair deal for EU manufacturers insofar as they are affected by China's subsidies in excess of subsidies they receive at home, and one that is in line with WTO rules; 2) stand up for the interests of EU car exporters and manufacturers in China, which are also recipients of various subsidies; 3) the long-run health and competitiveness of the EU car industry; 4) protect the interests of consumers,

especially those with low incomes, who would benefit greatly from cheaper cars; 5) ensure the speed of the green transition; 6) maintain a cooperative and constructive relationship with China for both economic and geopolitical reasons. To progress towards all six objectives simultaneously is a challenge, but can be done:

- The EU's stated objective should be to arrive at competitive neutrality in the EV sector, enhancing and not preventing fair competition that will promote productivity growth and innovation.

Accordingly, the countervailing duty margin on Chinese EVs should be computed objectively and realistically; it should be defined and documented in a way that is entirely robust to legal challenge at the WTO.

It should also take account of subsidies at home to reduce the EU's vulnerability to a Chinese counter: if the net subsidy is found to be zero, the countervailing duty margin should be zero, and the countervailing duty, if any, should be set at the minimum level consistent with the findings.

The duty should be accompanied by a proposal to set up a China-EU working party with a mission to identify and monitor EV subsidies, and to reduce them with a view to eliminating the duty margin over a defined period.

- To ensure the long-term vibrancy and competitiveness of its car industry, to safeguard the interests of its consumers, to sustain the green transition, and to maintain good relations with China, the EU should adopt an open-door policy on Chinese inward investment in its EV and battery sectors¹¹, while insisting on continued fair treatment of its firms that have already established footholds in the Chinese market. The EU may need to prepare, ultimately, to confront US restrictions on China-invested cars produced in Europe, such as Geely-owned Volvos.

- It is possible that, once embarked on this course, the EU may nevertheless face an excessively rapid penetration of imported Chinese EVs sometime in the future. Should that happen, the EU may resort to a WTO-compatible safeguard measure.

The advantage of the safeguard course is that the increase in tariffs would be time bound (three years). Safeguard tariffs must, however, apply to all imports, not only those from China. ■

Uri Dadush is a Non-Resident Fellow at Bruegel

Endnotes

1. See The White House, *'FACT SHEET: President Biden Takes Action to Protect American Workers and Businesses from China's Unfair Trade Practices'*, 14 May 2024.
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4. Michael Wayland, *'U.S. automakers like GM are rapidly losing ground in China, once an engine for growth'*, CNBC, 6 May 2024.
5. Contrary to research done by Autor et al (2024).
6. An example is the fight over Ford.
7. Kevin Williams, *'I Went To China And Drove A Dozen Electric Cars. Western Automakers Are Cooked'*, InsideEVs, 9 May 2024.
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9. Adhirup Roy, *'Tesla CEO Musk: Chinese EV firms will 'demolish' rivals without trade barriers'*, Nasdaq, 25 January 2024.
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11. As France has said it will; see Reuters, *'Chinese EV maker BYD welcome to open factory in France, French finance minister says'*, 6 May 2024.

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Instruments of economic security

Geopolitical and economic developments have raised concerns about the EU's exposure to hostile countries. Conor McCaffrey and Niclas Poitiers assess the nature of this threat and outline lessons that can be drawn

1 Introduction

Recent years have seen rising concern over the 'weaponisation of interdependence', ie. the exploitation of economic links for geopolitical purposes (Farrell and Newman, 2019). There has been a significant shift in the prevailing narrative on both sides of the Atlantic, from seeing economic interdependence as leverage to achieve political liberalisation, to a geopolitical view that sees it as a liability that exposes Western economies to foreign influence¹. The relationship between the United States and China has soured and China's accession to the World Trade Organisation may now be seen as a mistake².

Meanwhile, Russia's invasion of Ukraine is portrayed as glaring example of a failed Western strategy of *Wandel durch Handel* (change through trade). Rather than reducing tensions, economic interdependence instead left some parts of Europe significantly dependent on Russia at the time of the invasion, arguably strengthening Russia's hand.

However, a strategy of economic decoupling, undoing decades of globalisation and therefore vastly reducing the gains from trade, seems neither feasible nor desirable (Aiyar *et al* 2023). There is a new consensus among the G7 countries that the 'de-risking' of economic relationships with revisionist countries is a more feasible strategy³.

The central idea is to diversify supply chains and build a 'high fence' around a 'small yard'⁴, to protect vital economic sectors from foreign interference without jeopardising the economic benefits of globalisation. Put simply, the aim of this strategy is to reduce risks without starting all-out trade wars and undermining the rules-based economic order.

Many of the solutions put forward as part of this strategy include significant government intervention. While additional state support in certain areas, in particular for green industries, could have positive outcomes, this approach is not without risks. State support can backfire unless accompanied by strong governance.

This risk is exacerbated in the case of the European Union because the cohesion of its single market is threatened when discipline on state aid given by member states is eroded (Kleimann *et al* 2023). Therefore, it is important to have a thorough understanding of the problems that 'economic security' measures aim to solve, in order to judge the trade-offs involved in the proposed solutions.

To support the development of such an understanding, we attempt to derive a nuanced view of the economic risks that arise from economic interdependence with China in particular⁵. Based on this view, we assess the

The rise in global geopolitical tensions has coincided with deeper economic integration of EU and non-democratic countries, and an increase in the market concentration of EU imports

appropriateness of EU instruments aimed at improving economic security. We conclude that the EU has made significant steps forward in terms of ex-ante instruments, though many of them need more European coordination to avoid risks for the single market.

However, credible ex-post instruments are lacking. We see the need for a new ex-post instrument that shares the costs from economic coercion and helps countries and firms respond. Such instruments have to be underwritten by member states, and therefore the credibility of any European economic-security instrument depends crucially on a closely coordinated foreign policy.

2 What is economic security?

Despite its prominence in recent debates, the term 'economic security' is only vaguely, if at all, defined. The term has been used in varying contexts, and at times has been employed as a catch-all for policies aimed at mitigating all kinds of economic shocks, as well as a wide range of 'national/physical security' measures. This conflation of different types of risk can unsurprisingly lead to poorly targeted government interventions.

We employ a narrow definition that is centred around the notion of economic 'de-risking' from shocks, and not the use of economic measures to pursue national security objectives. We focus in particular on risks surrounding 'economic coercion' – the politically motivated disruption of supply chains and targeting of economic interdependencies.

Examples of such coercion include sanctions and trade embargoes, the weaponisation of energy markets following the Russian invasion of Ukraine, and Chinese economic coercion against Japan, South Korea, Lithuania and Australia.

In these cases, a hostile government targeted vulnerable economic sectors with the aim of inflicting economic and political damage. We assess instruments and strategies that are aimed at mitigating and limiting the risks from such deliberate and targeted economic shocks. It is noteworthy that these types of shock are not only a concern for strategic imports. Recent cases of economic coercion have actually targeted exports more than imports.

While threats to economic security can come from a range of sources, such as climate-related shocks or natural disasters, we focus on improving resilience against economic coercion for two reasons. First, the policy lessons are equally applicable to other supply-chain disruptions. Second, economic coercion includes an additional factor (the behaviour of hostile governments) not present in 'accidental' shocks.

This additional factor necessitates additional policy responses to affect other countries' incentives. As such, policies designed to address threats arising from economic coercion should also address wider risks to economic security.

We also focus on foreign-trade shocks and not domestic shocks, which can have similar implications and are part of some broader definitions of economic security. We are concerned with the interaction between economic outcomes and foreign policy, which is less of a concern with shocks of domestic origin and so the relevant policy instruments differ.

We deliberately abstract from policies that are framed as part of 'economic security' (eg. in the European Commission's Economic Security Strategy; European Commission, 2023a), but are not 'economic' in either nature or objective. With the exception of the very rare cases in which technical complexity creates monopolistic power and therefore the potential for future economic coercion⁶, measures aimed at preventing technology transfers are hard to justify on economic security grounds alone.

While maintaining European technological leadership in certain cutting-edge sectors is clearly desirable, it fails to meet the definition of economic security as articulated here. Other justifications – such as maintaining an edge in dual-use technologies for defence reasons – are thus generally necessary to justify measures that restrict technology transfers.

The distinction between ‘economic’ security risks and national security is important for two reasons. First, economic-efficiency arguments become less important when considering policies with direct national security implications. Economic analysis can help identify the most efficient way to achieve a desired outcome, but cannot ascertain whether a policy is necessary for defence purposes.

Second, separating economic security from national security has legal implications. WTO rules give countries the ability to react to policies that harm their economic interests (eg. with countervailing duties and rebalancing of tariffs) and to call panels to adjudicate on whether rules were broken.

The WTO framework also includes exemptions for measures pertaining national security⁷. The principle that states can intervene in markets to ensure their national security in ways that would be otherwise prohibited is generally recognised. However, there has been considerable debate about the wide-ranging usage of these exemptions by the United States (see Maruyama and Wolff, 2023).

In several cases, the US has justified policies that arguably primarily have protectionist aims with such national-security exemptions (for a discussion of the role of transatlantic relations see Box 1).

The EU and the US have converged on a shared paradigm of ‘de-risking’, a notion that was first embraced by European Commission President Ursula von der Leyen in March 2023¹³. It is noteworthy that the EU and US have come from opposite directions to arrive at similar strategies.

Box 1. Economic security and the transatlantic relationship

While there have been regular trade conflicts between the EU and the US (such as a long running dispute on subsidies for Airbus and Boeing), these were concerned primarily with protectionist measures and support for national champions.

However, during the Trump Administration, new conflicts arose that were framed explicitly around security. While not directly comparable to the current economic security debate relating to Russia and China, certain aspects of the European discourse can be traced back to these origins.

The retreat of the United States from the Iran nuclear deal (the Joint Comprehensive Plan of Action, or JCPOA) was a leading cause of the European desire for a more autonomous foreign policy.

Even though the EU believed it to be in its interest to keep trading with Iran, the US threatened European companies with secondary sanctions if they did so (see Leonard *et al* 2019). This did not affect European 'economic security' per se, but it did advance a discourse on how to harden European trade flows against foreign interference.

In 2018, the Trump Administration put tariffs on EU steel and aluminium exports, justified by national security concerns (Department of Commerce, 2018), launching a transatlantic trade conflict with a vague notion of national security at its centre.

Since President Biden took office, the EU and the US have managed to resolve major trade conflicts. The Airbus-Boeing trade dispute was suspended⁸, an agreement on transfers of personal data found⁹ and the trade and technology council established¹⁰ with the aim of preventing future conflicts through intergovernmental consultations.

The US tariffs on European steel and aluminum justified by 'national security' have been put under a moratorium, though a permanent solution has not yet been reached (Dadush, 2021). There are ongoing efforts to enhance economic security in the G7¹¹ and to cooperate on common concerns, such as those surrounding critical raw materials¹².

However, should political dynamics change again after the 2024 US presidential election, transatlantic relations could be tested once again and new EU-US trade disputes could arise.

In the US, the emphasis in 'economic security' has primarily been on security, representing a 'securitisation' of economic policy. Major economic policies have been announced by National Security Advisor Jake Sullivan, rather than by economic policymakers.

Many actions considered to fall under the umbrella of economic security, such as the US CHIPS and Science Act¹⁴ or outbound investment screening¹⁵, have been explicitly justified on national-security grounds. This stands in contrast to the European context, with the European Commission hitherto primarily concerned with economic policies and without a strong national-security mandate.

The 'Geopolitical Commission' of President von der Leyen¹⁶ is trying to use its economic powers to assert itself as a player in foreign policy. Yet its economic-security strategy includes many measures that are not directly related to economic considerations and mirror US policies (European Commission, 2023a).

3 A brave new world of economic interdependence

The idea of using economic linkages to achieve political goals is by no means new (see Mulder, 2022). Since the end of the Second World War, outright economic sanctions have mostly been used by the US and its allies against emerging-market developing countries (Hufbauer, 2007). Even before the Russian invasion of Ukraine, there was a surge in the number of sanctions imposed by Western countries (Felbermayr *et al* 2020).

However, while sanctions have historically been mostly used by Western countries, economic coercion is by no means an exclusive to the West. The examples of such measures targeting Western countries range from the oil embargo during the Yom Kippur War in 1973 (Hansen, 2023) to import restrictions on Norwegian salmon by China after the 2014 Nobel Peace Prize for Liu Xiaobo (Harrell *et al* 2018).

Given the dominance of Western economies in finance and technology, the types of economic linkage targeted by non-Western economies have historically often been access to raw materials. However, recent decades have seen a remarkable shift in the goods that are available for use in economic coercion against the West.

Figure 1 shows the breakdown of the main categories of EU imports by the political systems of source countries, as defined by Freedom House. While raw materials were long primarily imported from non-free countries, as recently as 2001 only 10 percent of imports of intermediate inputs came from such countries. By 2019 this share had increased to almost 40 percent.

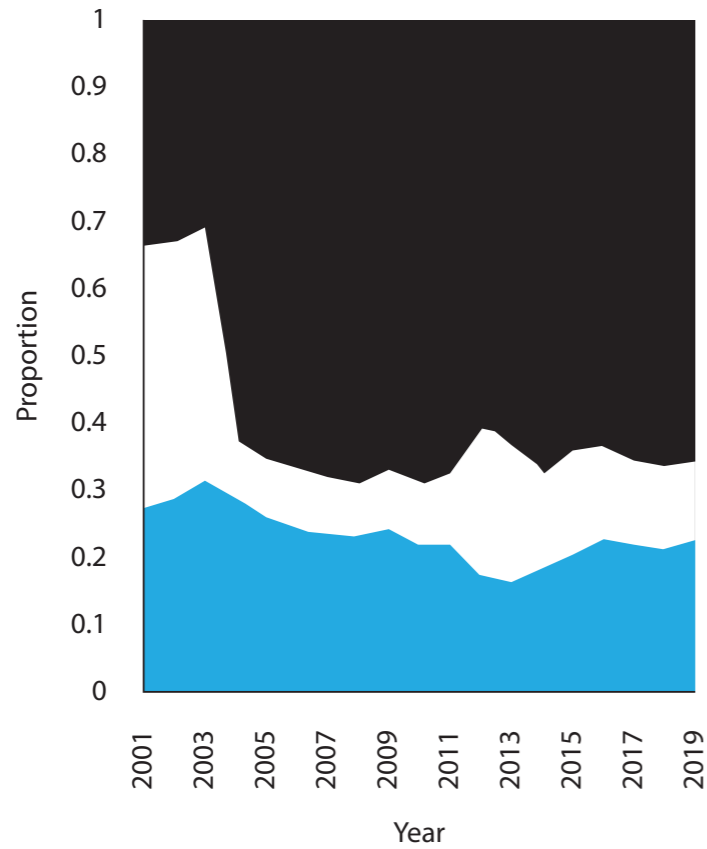
As a result, EU industry imports many more intermediate goods from countries with authoritarian political systems. Intermediate imports are often more specialised and differentiated, limiting their substitutability compared to commodities. This thus represents a new type of risk. Meanwhile, advanced technologies are increasingly dependent on specialised materials as critical inputs, meaning raw materials have also become more susceptible to economic coercion (Le Mouel and Poitiers, 2023).

One additional and often overlooked source of European vulnerability is export dependency. China in particular has become an increasingly important market for Western exports (Figure 6), with approximately 10 percent of German passenger car exports in 2022 going there, for example¹⁷.

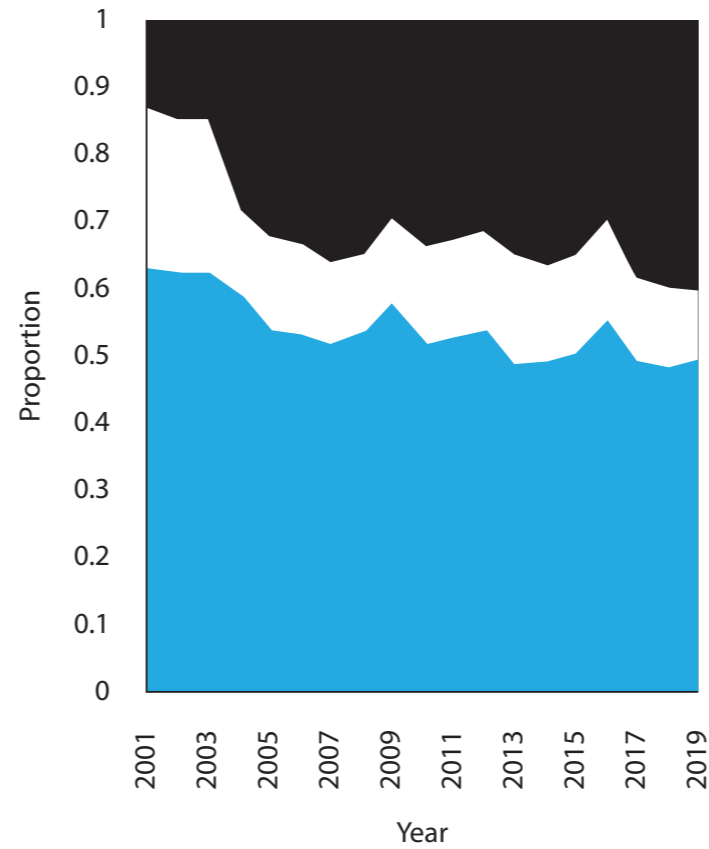
As will be shown, this means that import bans are also available as a means for China to put political pressure on Western governments. As Baqaee *et al* (2024) showed, the potential economic costs of sudden trade disruptions with China for a country like Germany are significant (they assess that the effect of a total cessation of trade with China for Germany would be 'severe but not devastating').

Figure 1. EU import sources by political system

% of EU Raw Material Imports by Freedom of Source Country, 2001-2019



% of EU Intermediate Goods Imports by Freedom of Source Country, 2001-2019

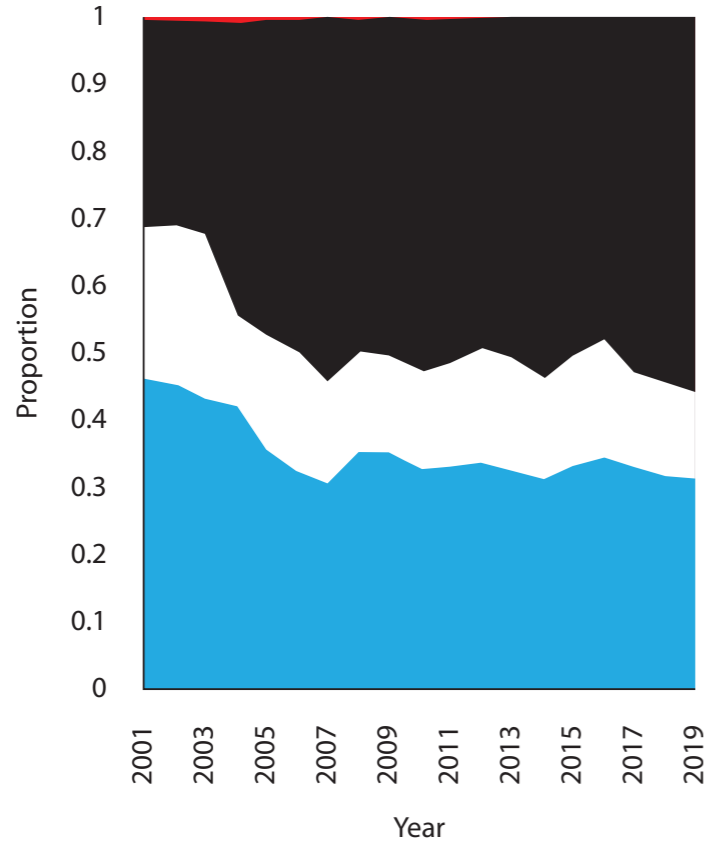


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Figure 1. EU import sources by political system cont.

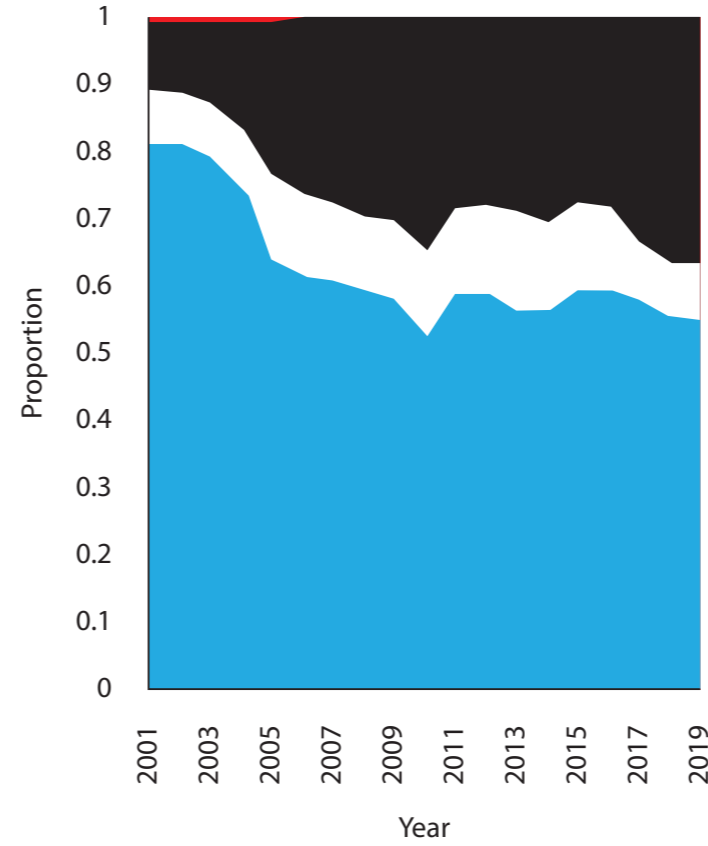
Year

% of EU Consumer Good Imports by Freedom of Source Country, 2001-2019



Year

% of EU Capital Goods Import by Freedom of Source Country, 2001-2019



Status
■ Undefined ■ Partly Free
■ Not Free ■ Free

Source: Bruegel based on Eurostat, UNCTAD & Freedom House.

4 The threat of economic coercion

Economic coercion comes in many shapes and forms. Adachi et al (2022) tallied Chinese coercive methods since 2012 (Figure 2). Many measures targeted individual firms, while trade restrictions have been the most common form used to target countries. Within these trade restrictions, import restrictions (China blocking the imports of goods from foreign markets) have been used more often than export restrictions¹⁸.

Unlike Western sanctions that follow formal legal procedures and can be challenged in courts, measures taken by China are often informal. Documentation detailing measures can be difficult to find, and targeted entities might thus find it difficult to challenge measures even when avenues to do so might exist (Hackenbroich *et al* 2022).

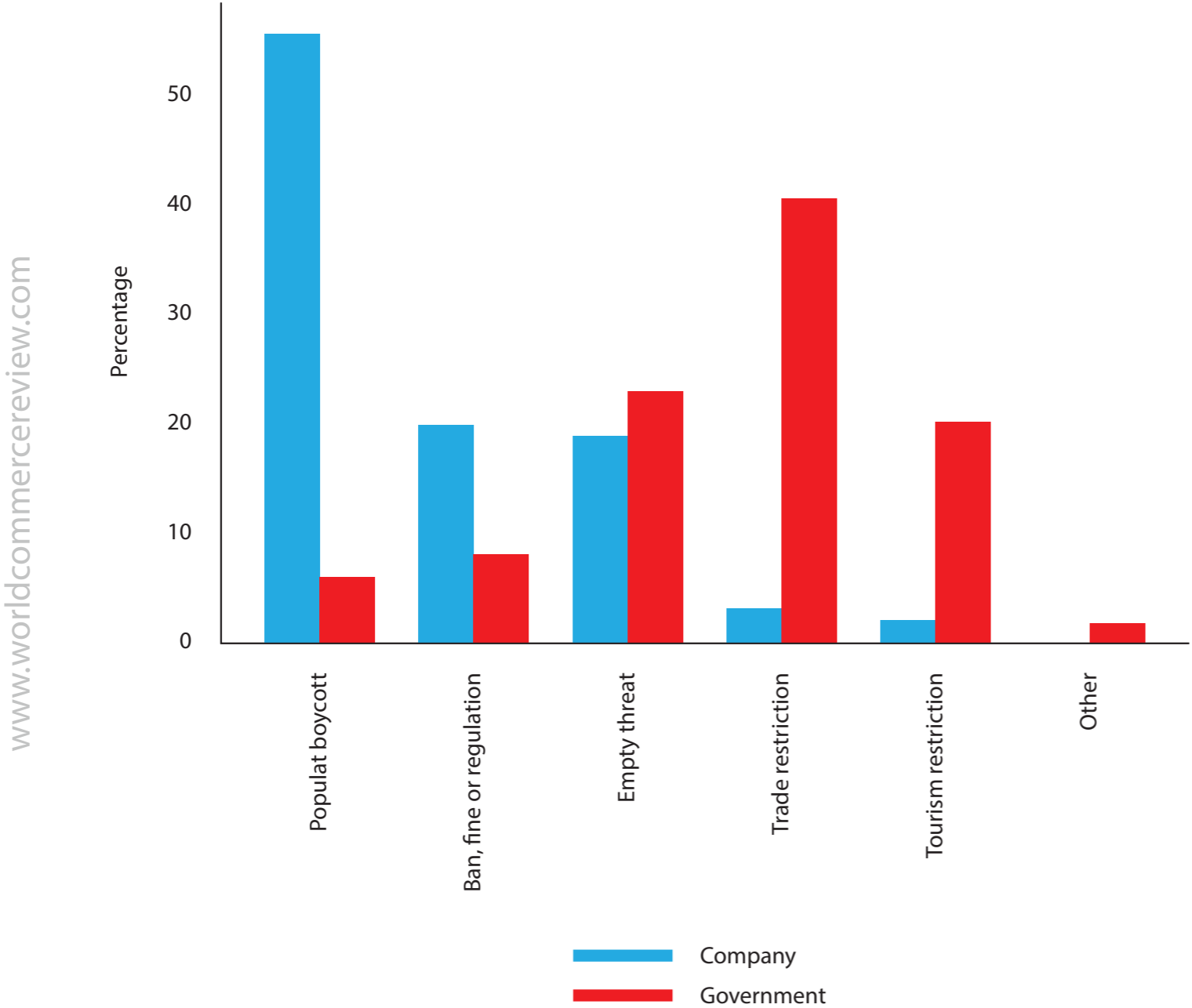
A particularly problematic example is popular boycotts against certain foreign brands, individuals or firms. While sometimes genuine, these movements to encourage firms and consumers to punish certain firms are often stoked by state-controlled media and on social media¹⁹. They represent the most common form of economic coercion used by China against firms, and are particularly difficult to attribute to undue state intervention.

The experiences of trade wars and Western sanctions against Russia provide some insights into what types of goods are vulnerable to economic coercion. In episodes such as the China-US trade war that began in 2018, trade diversion has been a major feature, limiting the effects of trade restrictive measures (Fajgelbaum *et al* 2023).

Similarly, sanction circumvention and alternative sourcing pose major challenges for the effectiveness of Western sanctions against Russia (Babina *et al* 2023).

The effectiveness of any type of coercive economic measure depends on the market power of a country or coalition. If alternatives are widely available, a targeted economy can easily switch its sources of imports for a product.

Figure 2. Forms of Chinese economic coercion



Source: Adachi et al (2022).

Similarly, if alternative export markets exist, a bilateral trade relationship cannot easily be weaponised. This rules out most commodities from being used or targeted effectively for economic coercion, as they have many sources and markets. Even where a high degree of market concentration is found, this does not necessarily imply high monopolistic power.

The contestability of a market also depends on barriers to entry for newcomers. Many of the products for which there is a high degree of market concentration are low-tech products, such as artificial flowers and electric blankets (Mejean and Rousseaux, 2024).

If the dominant producers would limit exports of these products, it would be rather easy for new companies to enter the market. This was the case for rare gases (neon, krypton and xenon), the supply of which was disrupted by the Russian invasion of Ukraine (Georgitzikis and D'Elia, 2022). Their prices spiked after the outbreak of the war, but came down rather quickly as new producers entered the market²⁰.

Furthermore, there might exist close substitutes that might not be employed presently but could become commercially viable if the supply chain of the incumbent technology is disrupted. Examples of this dynamic have been documented during trade embargoes (Mulder, 2022). However, it can be difficult to assess the feasibility of such substitution before an actual disruption occurs.

An economy can have monopolistic power for several reasons. First, a natural resource might only exist in a few countries, giving them effective control over where the supply goes. Second, infrastructure bottlenecks might create monopolistic power in segregated markets.

This was the case for Russian pipeline gas in the wake of the invasion of Ukraine: a lack of liquified natural gas (LNG) capacity in central Europe allowed Russia to hike prices in European gas markets.

Third, economies of scale or industrial policy can lead to dominance on certain markets, as is the case of China in the solar panel industry (García Herrero *et al* 2023). Fourth, advanced technological capacities might give monopoly power. An example for this would be ASML in the chip industry (Poitiers and Weil, 2021; Kleinhans and Baisakova, 2020).

The 'contestability' of a market is also important. Only if a monopoly market can be maintained over time can it be exploited over extended periods without the risk of losing future markets.

In 2022, there was considerable concern over the supply of certain gases that were primarily produced via a Russian-Ukrainian supply chain. However, alternative sources were brought online relatively quickly, preventing lasting shortages (Darvas *et al* 2023).

To induce harm that is macroeconomically significant, the impact of a bilateral flow needs to have a material impact on the overall export or import performance of the targeted economy. For certain goods, in the fields of health, defence or clean energy, for instance, disruptions to imports may be highly damaging or have some non-economic outcome, with prominent examples being personal protective equipment and vaccines during the COVID-19 pandemic.

In highly diversified advanced economies such as the EU, the capacity to induce truly significant shocks, either macroeconomic or otherwise, is limited to a very small number of strategic goods. However, in many cases of economic coercion, the harm is market- and industry-specific rather than macroeconomic.

Though few individual products are of such importance that they can affect the economy as a whole, targeted measures can easily harm politically important constituencies, and thus exert political pressure on policymakers.

In the following, we consider two recent cases of economic coercion that illustrate how economic interdependence can be weaponised: the measures taken by China against Australia and Lithuania since 2020.

4.1 Australia: a tale of two sectors

In mid-2020, following then-Australian Prime Minister Scott Morrison's calls to open an investigation into the origins of the COVID-19 pandemic²¹, China began a campaign of economic coercion against Australia that only began to be eased in early 2023.

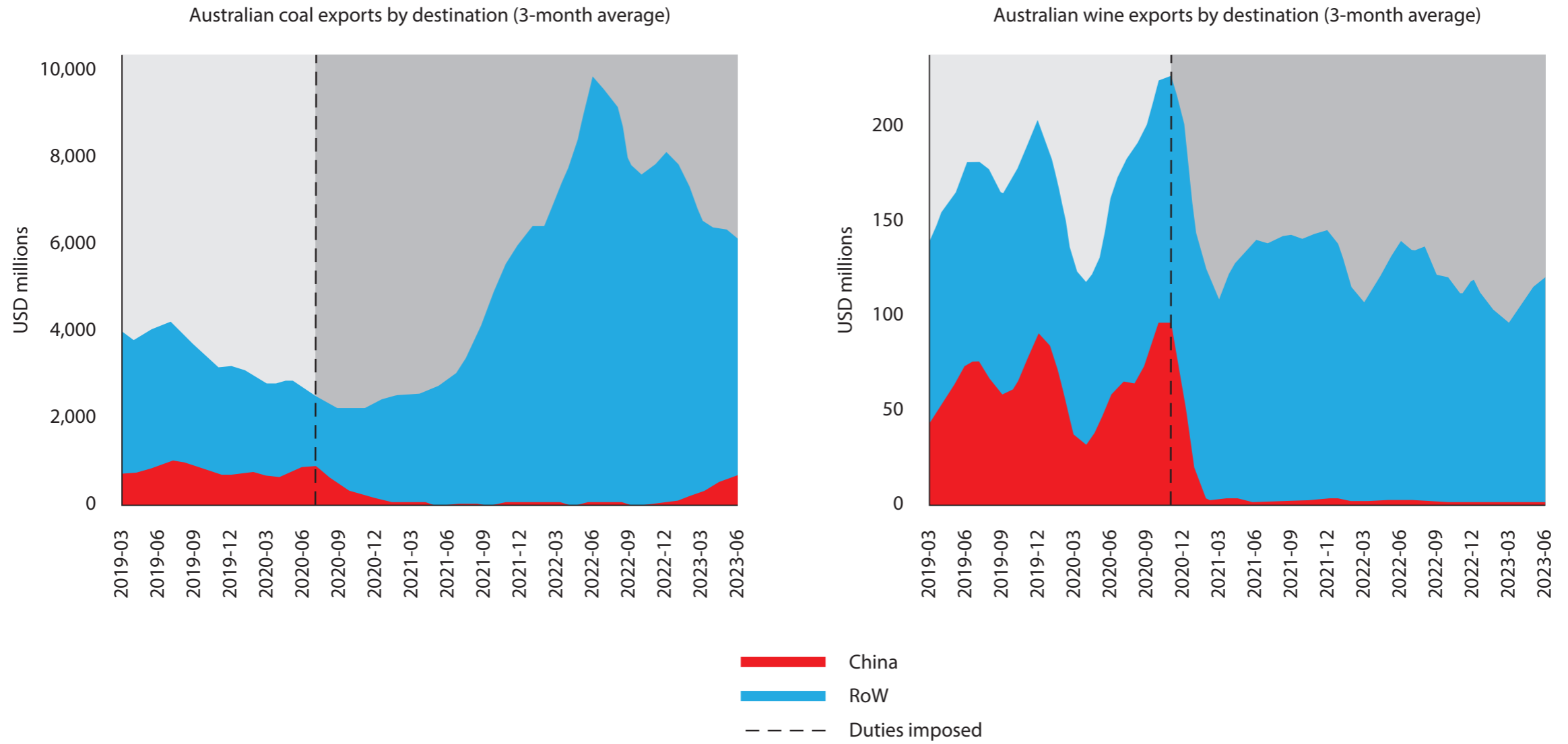
It targeted Australian exporters and introduced *"discriminatory tariffs on wine and barley"* and *"informal and WTO-illegal bans on coal, beef, lobster, cotton, wood, nickel and copper concentrates"* (Urden 2023a)²². As a result, China's share of Australian exports fell from its mid-2021 peak of almost 45 percent to less than 30 percent by the end of 2022²³.

The Australian economy as a whole successfully navigated the coercive measures introduced by China. The value of Australian exports rose between 2020 and the end of 2022, largely driven by energy exports to Asian markets other than China.

There was however important variation in the impacts on the various targeted sectors. For the coal sector, the decline in exports to China was more than offset by higher exports to the rest of the world, in particular to Asian countries that were also indirectly affected by China's actions (Figure 3, Panel A)²⁴.

Figure 3. Chinese economic coercion against Australia

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Source: Bruegel based on Australian Bureau of Statistics (left) and UN COMTRADE (right).

Significant export diversification, coupled with high coal prices following the Russian invasion of Ukraine, meant that Australian coal exporters enjoyed surging import revenues over the period of the unofficial embargo.

This makes for a stark contrast with Australian wine exporters. Because of a 2015 free trade agreement²⁵, Australian wine exporters had been at an advantage in China compared to many other wine-exporting countries, making China an important export destination.

However, following the imposition of countervailing duties as high as 218 percent in late 2020, wine exports to China collapsed from approximately 38 percent of total Australian wine exports in 2019 to zero since 2022. Unlike coal, the industry failed to expand into other markets.

Consequently, monthly Australian wine exports in June 2023 were down over 40 percent from their October 2020 peak. Chinese duties, coupled with a strong harvest, led to a significant oversupply of Australian wine²⁶, depressing prices and adversely impacting the industry²⁷.

The two industries detailed here are representative of the broader range of targeted industries. Some, such as barley, succeeded in diversifying away from Chinese buyers (to Saudi Arabia) and saw their exports grow over the period in question. Lobster and wood exporters on the other hand failed to move into new markets and suffered the same fate as their counterparts in the wine industry (Buckland *et al* 2023).

4.2 Lithuania: much ado about nothing?

The trade restrictions introduced by China against Lithuania in 2021 marked the most serious incident of Chinese economic coercion against an EU member.

The relationship between the two countries had been particularly fraught since the formation of a new Lithuanian government in 2020²⁸, but broke down entirely in mid-2021 when the Lithuanian authorities announced that they would allow a Taiwanese representative office to be opened in Vilnius²⁹.

After two years of an essential trade ban (detailed below), the Lithuanian government reported in November 2023 that 'most' Chinese trade measures had been lifted³⁰.

Given the opacity of China's actions, it is difficult to disentangle precisely which measures were implemented and when. However, the European Commission (2022) detailed that the original measures enacted included disruption to logistics networks (leading to more expensive and delayed freight deliveries), difficulty obtaining trade credit insurance for imports, and general disruption to supply chains containing Chinese components.

These measures were escalated following the actual opening of the Taiwanese office in November 2021, to go beyond direct trade between the two nations. They also targeted Lithuanian participation in global supply chains, with products from other European countries containing Lithuanian components being threatened with rejection by Chinese customs authorities.

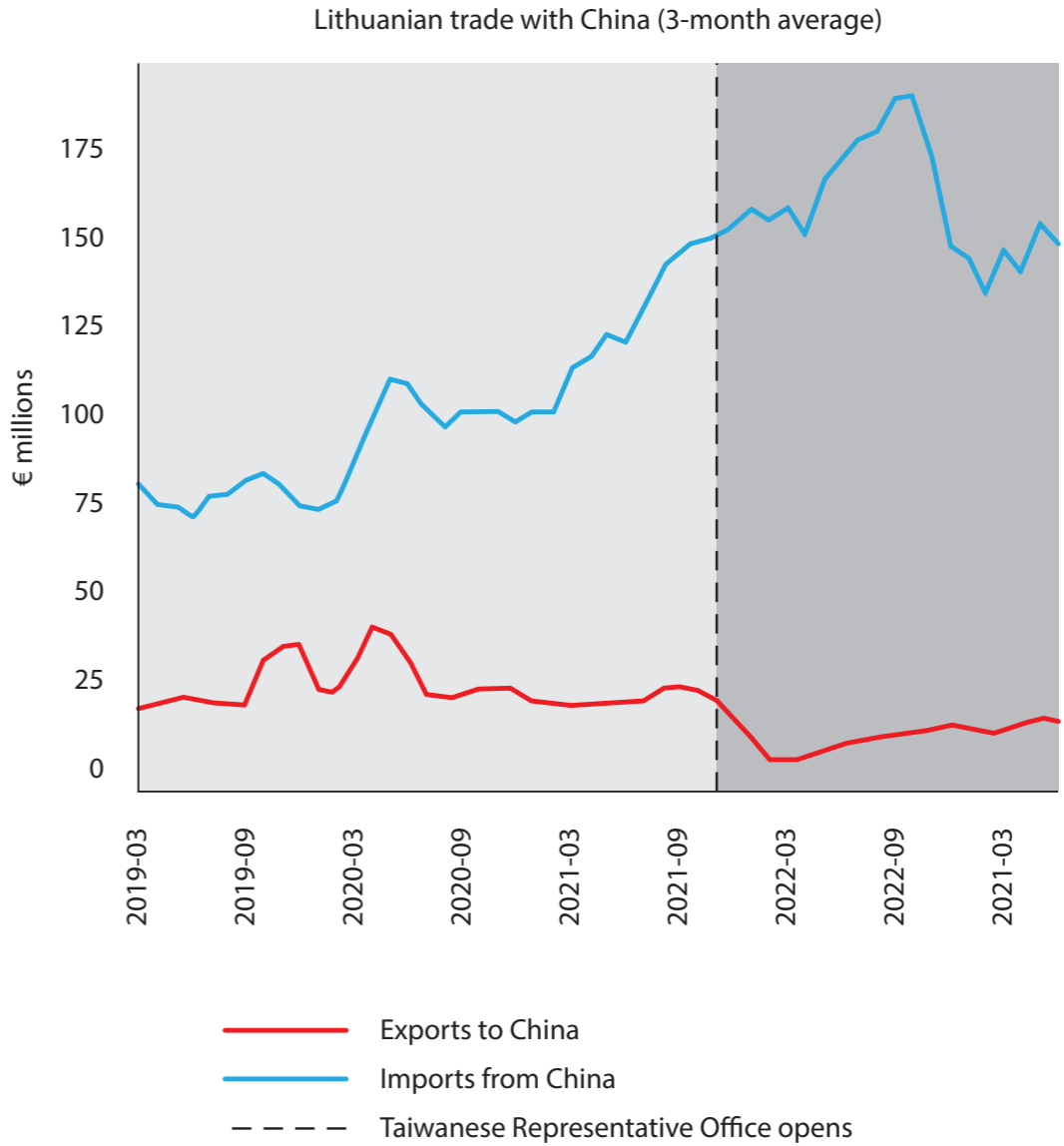
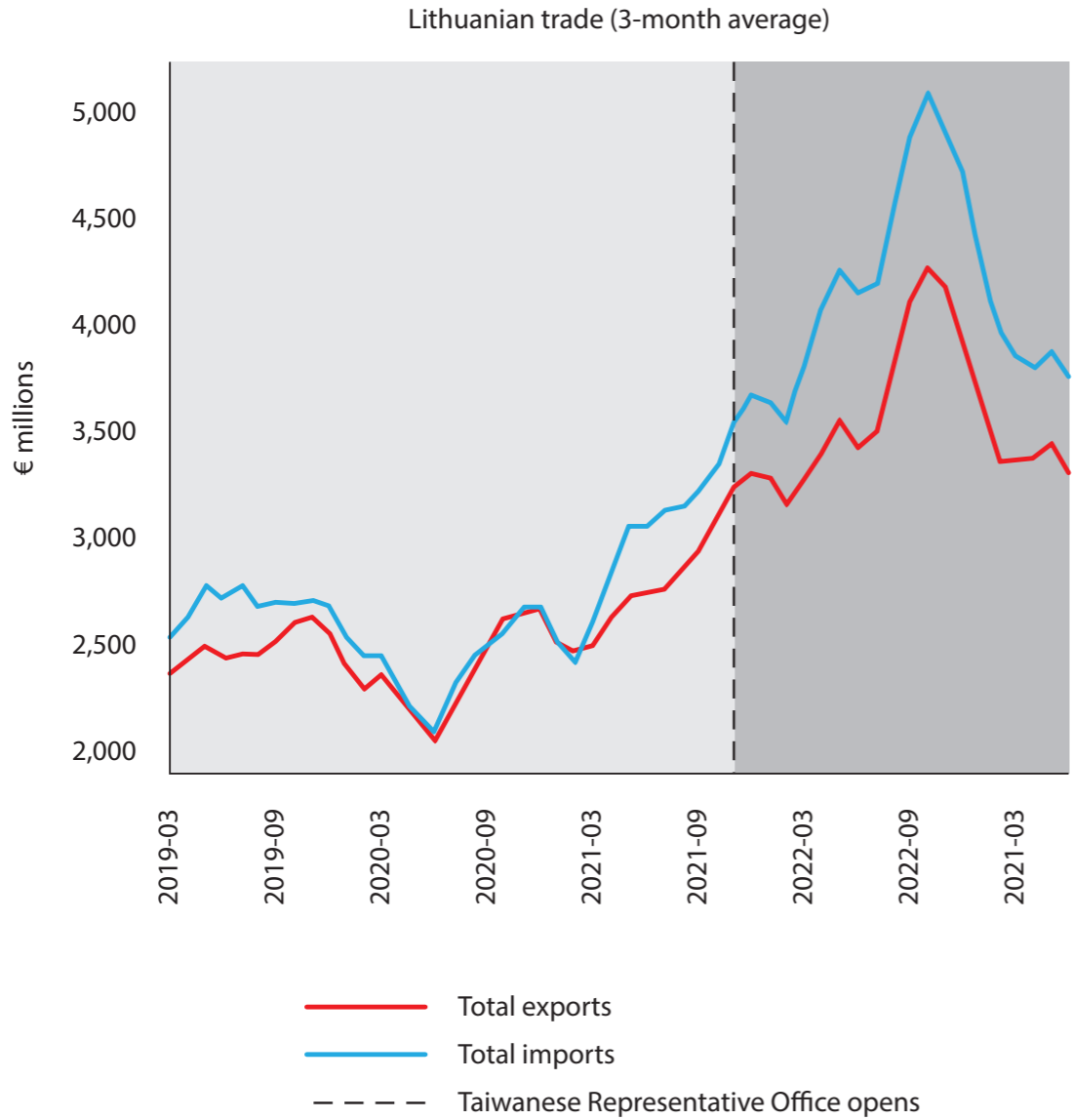
Official import bans on certain products were introduced in 2022, with China relying once again on spurious justifications, such as a 'lack of documentation'³¹.

Lithuanian exports to China fell by two-thirds between 2020 and 2022, but imports from China grew by the same amount over the period in question, which reinforces the idea that China most often targets countries' exports.

Neither Lithuanian total exports nor total imports were significantly impacted, which is unsurprising given that China made up just 1% and 4% of Lithuania's 2020 exports and imports respectively³².

Figure 4. Lithuanian exports and imports to the world (left) and to China (right), 3-month average in € millions

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Source: Bruegel based on Eurostat.

Box 2. Lithuanian support scheme

In April 2022, the European Commission approved under EU state aid rules a Lithuanian loan scheme designed *“to support and facilitate access to finance by companies affected by the exceptional circumstances resulting from China’s discriminatory trade restrictions on Lithuania”* (European Commission, 2022). This was approved to last until the end of 2027 or the end of the trade restrictions, whichever came first. However, because of a lack of uptake, the scheme was wound down in 2023³⁵.

Administered by INVEGA, the Lithuanian national promotional institution, the scheme was capped at a maximum of €130 million overall, and at €5 million per firm. Access was limited to Lithuanian firms for which the *“proportion of either imports from or exports to China represents at least 25% of the beneficiary’s total imports or exports in 2021”*, and that were unable to receive financing on the market (which had to be proven by rejections from three financial institutions). The loans had to be used: (i) to source inputs from different sources, (ii) to explore the possibility of entering new markets or (iii) to use *“the time to undertake such efforts.”*

Estimates at the time of approval were that there were 130 potential beneficiaries, with this expected to increase to up to 500 as Chinese restrictions persisted and grew. However, only three firms, each an SME, made use of the support offered. The total amount of loans granted was €4.22 million, just 3 percent of the maximum amount permitted.

However, as in the case of Australia, certain sectors were negatively affected by the measures, with two of the three firms claiming assistance under a national support scheme (Box 2) operating in the solar PV industry³³.

Several observations can be made on the joint experiences of Australia and Lithuania of Chinese economic coercion³⁴. First, exports to China were targeted more strongly than imports. Second, despite significant trade restrictions from one of the world's largest economies, neither country suffered macroeconomically. Third, targeted industries can emerge unscathed without government intervention, largely through successful diversification.

As Australian coal and barley exports showed, commodities are particularly poor targets for economic coercion as global markets provide alternative buyers. However, it also shows that even if the wider economy can withstand coercion, certain sectors can be strongly impacted.

The markets where Chinese coercion had the greatest effects (wine, lobsters and wood in Australia) are macroeconomically insignificant, yet their targeting affected some constituencies. In other words, the inflicted damage was political rather than macroeconomic.

5 Where is the EU exposed to economic coercion?

As monopolistic power is a necessity for economic coercion, potential vulnerabilities can be identified by looking at market concentration. The Herfindahl-Hirschman index (HHI) provides an index that measures market concentration. It is used widely not only for assessing competition cases, but also in defining economic security risks (European Commission, 2021a; Jaravel and Mejean, 2021; Welslau and Zachmann, 2023).

The HHI has a value between 0 and 1. The lower the value, the more competitive a market. In competition policy, any market with a value above 0.25 is considered indicative of a high degree of market concentration, and any market with a concentration above 0.6 is considered 'monopolistic' (US Department of Justice, 2010).

While these measures might not apply one-to-one to import vulnerabilities, they provide a yardstick of how concentrated import markets are.

Figure 5 plots the distribution of HHI values of EU imports by product category for 2001 and 2019³⁶. For easier comparison, estimated distributions for both years are displayed in the right panel. We highlight goods with an HHI above 0.6 as monopolistic and thus problematic.

This is a conservative choice, compared to the threshold values used in other analyses (an HHI of 0.4 in the case of the European Commission). However, this analysis is meant to illustrate the evolution of EU import markets and we abstract from the second stage of import concentration analysis, justifying a more restrictive approach³⁷.

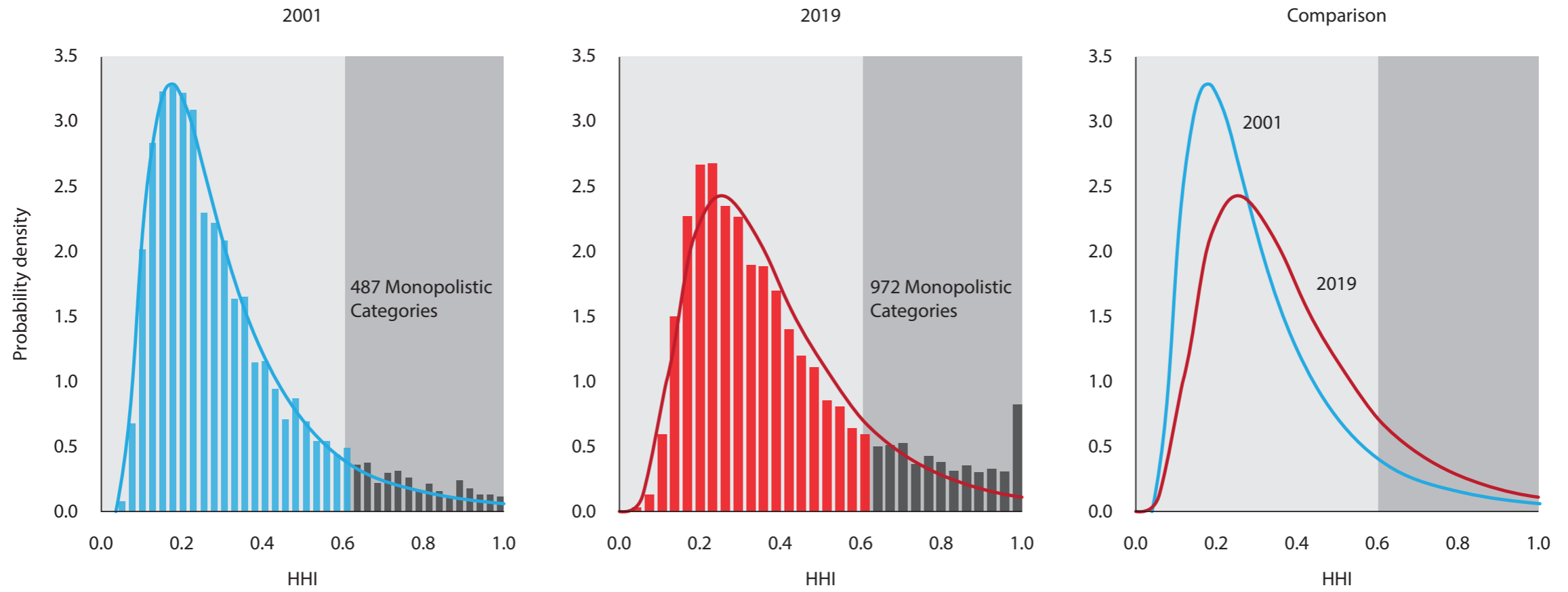
Between 2001 and 2019, the distribution of EU import market concentration shifted considerably to the right. While in 2001, 487 products had concentrations considered 'monopolistic', in 2019, 972 products fell into this category.

Table 1 provides for the EU a breakdown of the types of product that were in highly concentrated markets in both 2001 and 2019. In both periods, most of the products in highly concentrated markets were manufactured goods.

For instance, in 2019, 626 products were manufactured goods, but they accounted for only 11 percent of the value of manufactured goods imports into the EU. This was more than double the 5 percent of the import value of manufactured goods falling into the 'problematic' category in 2001.

For non-fuel raw materials, 22 percent of products were in monopolistic markets in 2019. While the share of value of non-fuel raw materials in monopolistic markets did not change significantly over the time period in question, many more of the highly concentrated goods categories were classified as 'critical raw materials' in 2019 than in 2001.

Figure 5. Evolution of concentration of EU imports



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Source: Bruegel based on Eurostat.

Similarly, many more of the highly concentrated manufactured goods imports are 'high tech' goods, with the share increasing from 25 percent to 43 percent. A significant part of the increase can be directly attributed to China. It was the main source country for 20 percent of the highly concentrated import categories in 2001, with this share more than doubling to 49 percent in 2019.

Meanwhile, the share of the US in concentrated EU imports roughly halved in almost all categories (for an analysis of the trends, see Welslau and Zachmann, 2023).

Overall, EU imports of both raw materials and manufactured goods were much more concentrated in 2019 than in 2001. This shows that a high degree of market concentration is not merely a feature of a few goods categories that might have been supported through strategic Chinese industrial policy, but rather the effect of an increase in market concentration across the entire spectrum of imports.

Therefore, a strategy to limit import concentration cannot be focused only on strategic imports, as potential targets for import bans are plentiful and new ones are likely to arise in an overall concentrated market environment. An effective diversification strategy should therefore aim to lower the degree of market concentration more generally.

It is also important to note that import dependencies alone are not necessarily concerning. Among the categories of goods for which Mejean and Rousseaux (2024) found the EU to be reliant on highly concentrated import markets are, for instance, artificial flowers and camping flasks.

While shocks in the countries of origin would likely lead to EU import disruptions in these sectors, it seems implausible that these shocks would cause social welfare losses significant enough to warrant government intervention.

Table 1. Breakdown of highly concentrated import markets

	Year	# Products	Products	Value	Products HT/CRM	Value HT/CRM	Products China	Products US
Raw materials								
Total	2001	71	15%	4%	7%	4%	13%	21%
	2019	110	22%	2%	6%	18%	16%	11%
Non fuels	2001	66	15%	7%	8%	8%	14%	20%
	2019	101	22%	9%	7%	21%	17%	11%
Manufactured goods								
Total	2001	348	9%	5%	11%	25%	120%	37%
	2019	626	15%	11%	10%	43%	49%	19%

*Note: HT = high tech goods according to classification by the United States Census Bureau.; CRM = critical raw materials as defined by the European Commission.
Source: Bruegel based on Eurostat.*

There are important precedents for the weaponisation of import vulnerabilities. These include the Chinese threat to ban exports of certain critical raw materials during a 2010 trade dispute with Japan³⁸, and recent export restrictions on critical minerals³⁹.

However, most cases of economic coercion by China have either directly targeted companies operating on its markets or exports to China. This stands in contrast to the almost exclusive focus of economic security on risks stemming from Western imports from China.

As Adachi *et al* (2022) showed and the Australian and Lithuanian cases illustrate, imports from China are not typically the primary vulnerability for economic coercion. Instead, these past experiences have shown that China tends to weaponise access to its domestic market for foreign exporters.

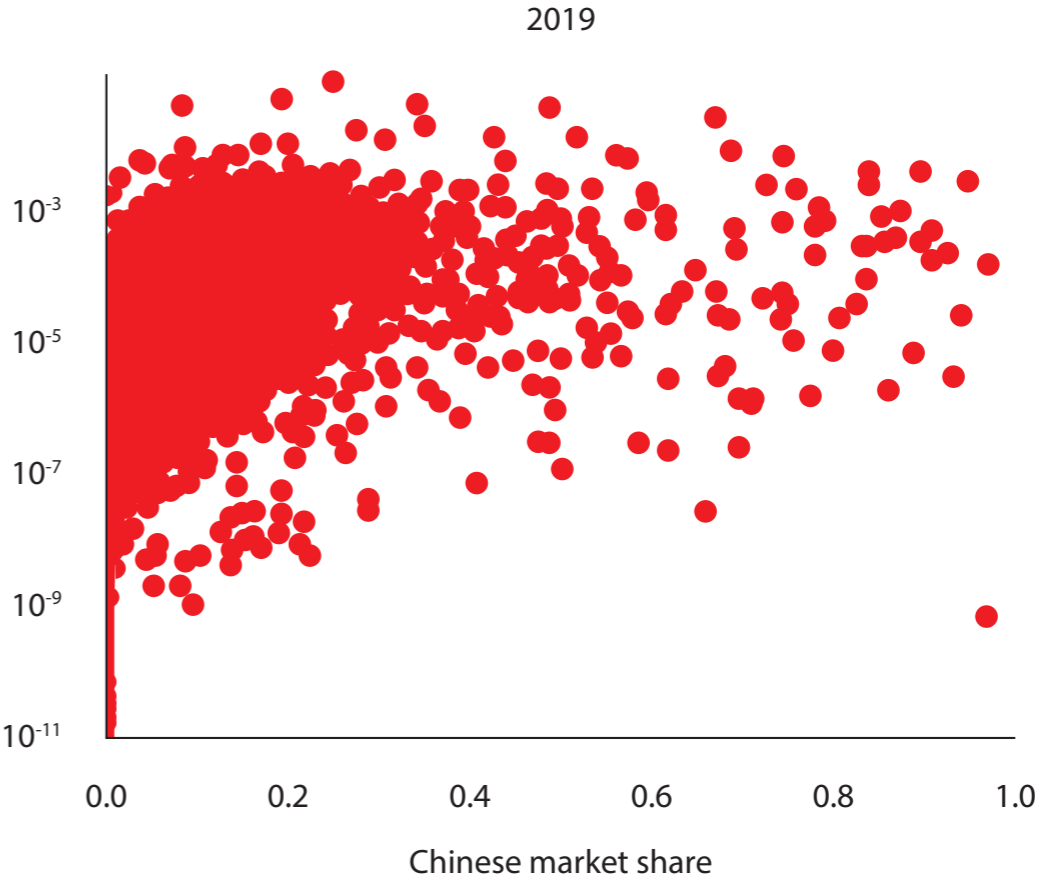
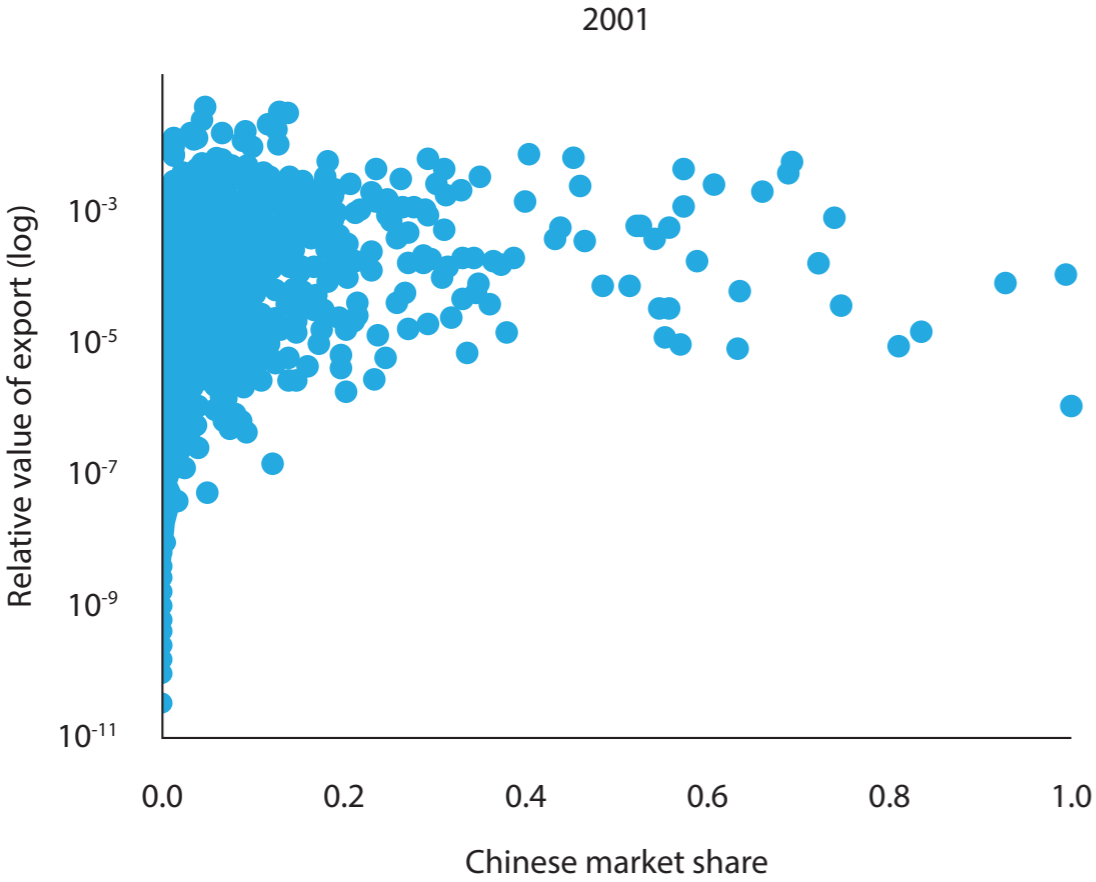
Given that a market must be sufficiently large to have monopolistic power as an export destination, China is virtually the only country of concern to the EU for this type of risk⁴⁰. While other countries can also harm EU export interests, they are unlikely to be sufficiently large to inflict significant damage.

Therefore, we use in Figure 6 Chinese market shares as proxy for export vulnerabilities instead of the HHI index. The economic importance of an export is measured by its relative value (it's share of total exports to China). A product in the lower left corner is of relatively low value and is not exported a lot to China, whereas a product in the upper right corner is of high value with most of it being exported to China.

Overall, a large shift to the right is evident. In other words, there is now a much larger number of products where a Chinese embargo on EU exports would inflict significant harm, increasing the number of potential targets for Chinese restrictions.

Figure 6. Concentration of EU export markets

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Source: Bruegel based on Eurostat.

As in the case of the increasing import concentration, the increase in Chinese market shares in exports represents a structural shift rather than something that is product-specific. A focused strategy on the most exposed exports might limit some potential harm in the short term, but the number of potential targets is so high that broader diversification is necessary and overarching policy instruments are required.

6 Instruments of economic security

The increased exposure of the EU to economic security risks has rightly drawn the attention of policymakers. Various initiatives have been proposed with the aim of increasing the resilience of the European economy against such risks. Given the different types of threat, these initiatives rightly include a wide range of instruments⁴¹.

Table 2 provides an overview of the policy instruments relevant to the economic-security debate, including both those announced under the auspices of economic security but that are in fact more pertinent to national security, and policies relevant to addressing economic security risks that have not yet been put forward.

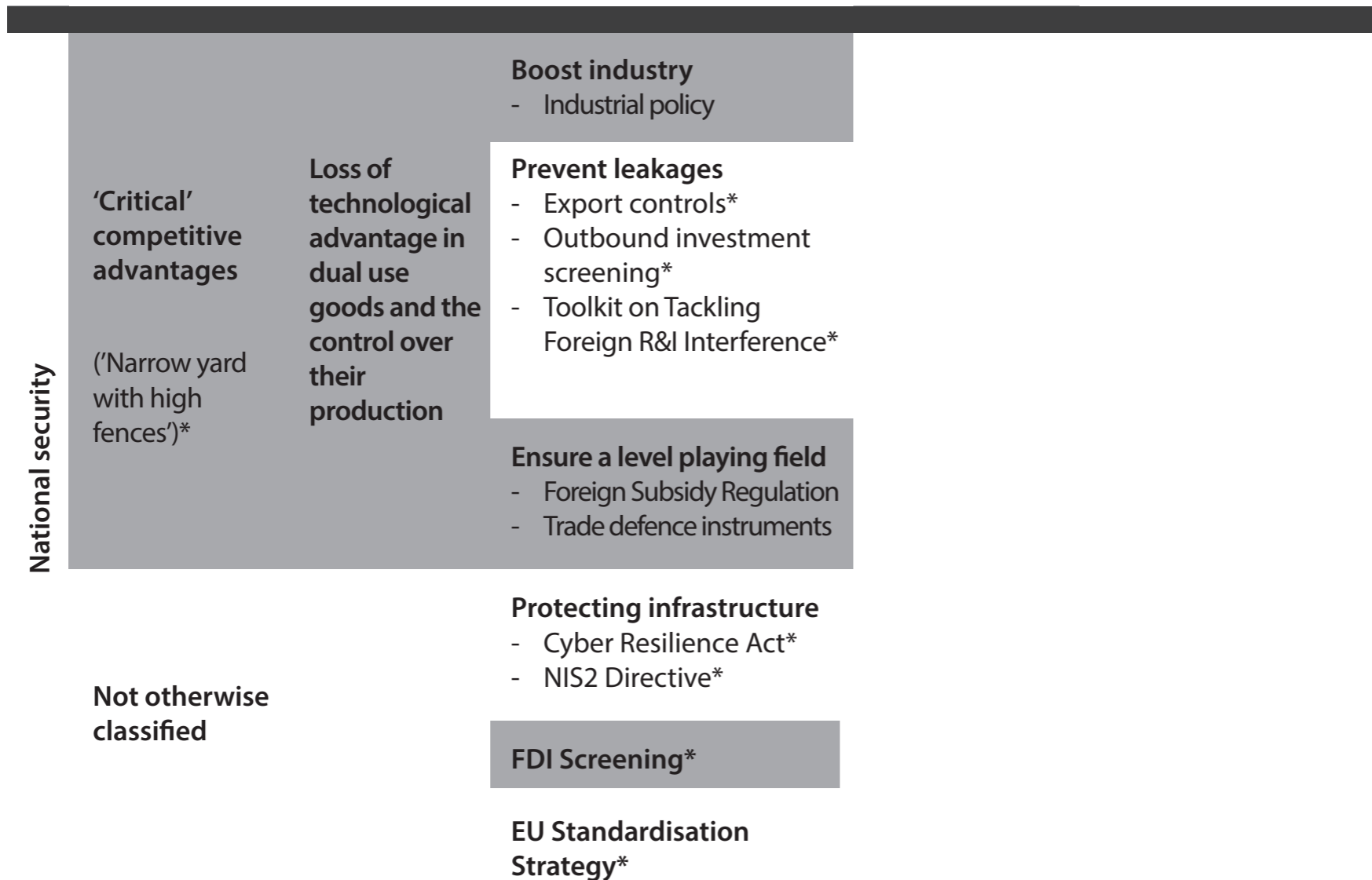
We distinguish them depending on the nature of the threat (eg. whether it targets exports or imports)⁴² and the intended timing of implementation (pre-emptive, ex-post or both, which we term 'overarching'). It is noteworthy that many of these policies have the potential to improve the resilience of the European economy in areas beyond responding to economic security threats.

As mentioned, Table 2 includes a number of policies mentioned in the Commission's Economic Security Strategy but that are arguably more concerned with non-economic risks. The downsides to many cyber-attacks or research interference are not primarily economic in nature.

Table 2. Instruments of economic security

	Vulnerability	Threat	Ex-ante instruments	Ex-post instruments	Overarching instrument
Economic security	High export concentration	Targeted trade embargoes	Diversification <ul style="list-style-type: none"> - Free/Preferential Trade Agreements (FTAs/PTAs) - Secondary instruments, eg. export credit agencies, development policies, 'clubs', TTCs, Global Gateway 	Bespoke national support eg. state aid-sanctioned scheme in Lithuania	Anti-coercion instrument <ul style="list-style-type: none"> - Introduction of proportionate retaliatory measures
	High import concentration	Disruption of supply of critical components	Diversification <ul style="list-style-type: none"> - FTAs/PTAs - Secondary instruments (see above) 		
			Increase domestic production <ul style="list-style-type: none"> - Industrial policy - Strengthening the single market 		Internal Market Emergency and Resilience Act <ul style="list-style-type: none"> - Monitoring, stockpiling, joint procurement and potential 'priority rated orders'.
			Ensure a level playing field <ul style="list-style-type: none"> - Foreign Subsidy Regulation - Trade defence instruments 		

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*Note: Includes current/proposed EU policy measures, as well as those we believe are missing. * denotes policies or ambitions put forward under the umbrella of economic security that generally fall outside of our definition⁴³.*

Source: Bruegel.

The Commission has declared certain technologies to be of particular concern because of *“the enabling and transformative nature of the technology; the risk of civil and military fusion; and the risk of misuse of the technology for human rights violations”* (European Commission, 2023d).

The latter two criteria are not relevant in terms of our narrow definition of economic security. The former, which the Commission defines as assessing the technology's *“potential and relevance for driving significant increases of performance and efficiency and/or radical changes for sectors, capabilities, etc”*, could fall under the remit of economic security only in sectors where high degrees of technological complexity create monopolies, as described earlier.

In the following, we discuss the role of some instruments in more details, as part of four complementary strategies to enhance economic security: mapping of vulnerabilities; diversification of imports and exports; industrial policy and technology security in strategic sectors; and ex-post policies to help redress political damage.

6.1 Mapping vulnerabilities

The first step of responding to economic security concerns is to identify risks. Global value chains are enormously complex and not all dependencies are direct (Qiu *et al* 2023). Coercive measures can go beyond direct bilateral trade, as was the case with China's actions against Lithuania.

As such, a detailed understanding of the EU's dependencies on other countries for both exports and imports is necessary. This would allow authorities to identify potential vulnerabilities ahead of shocks, and assist affected firms, in particular SMEs, to diversify their supply chains and mitigate the risk in question.

Hackenbroich *et al* (2022) argued that there may be scope for an EU body to carry out detailed data analysis for this purpose.

Monitoring supply chains by requesting, and in some instances requiring, firms in strategic sectors to disclose information on their suppliers, stocks and productive capacities is a key, and controversial⁴⁴, component of the proposed EU Internal Market Emergency and Resilience Act⁴⁵.

Similarly, the European Chips Act entails mapping and monitoring the semiconductor supply chain to assess ex-ante risks of potential import disruptions⁴⁶. Depending on the importance of a sector, a balance has to be found between the administrative burden on firms and the benefits from further insights. For instance, informational requirements should be higher on those sectors flagged by Mejean and Rousseaux's method (2024) as being at risk.

However, awareness of risks alone does not directly lead to mitigation measures; economic incentives have to align as well. While over 95 percent of firms surveyed in the EIB Investment Survey (European Investment Bank, 2023) had experienced some form of disruption to international trade, less than half of them had changed or were planning to change their sourcing strategies.

Even when potential downsides are large enough to warrant a change in sourcing, there might not be readily available alternatives. This leads us to the next strategy.

6.2 Diversification

Since monopolistic power is a necessary condition for effective economic coercion, trade diversification is the most effective strategy to reduce vulnerabilities, as it can lead to more competition across a wide range of imports and exports.

While precise results change depending on the criteria used to determine dependence, there has been significant churning in the products in which the EU has been overly import dependent (Vicard and Wibaux, 2023).

Failing to further comprehensively diversify both imports and exports will likely lead to more goods falling into the concerning range of high export or import concentration. Otherwise, in focusing on individual goods in structurally concentrated markets, policymakers will be constantly racing to address different areas of concern.

To achieve greater diversification, a combination of policy tools offers the most promising avenue. First and foremost, free and preferential trade agreements (FTAs/PTAs) open new markets for both exporters and importers.

The EU has made progress in broadening its level of trade covered under PTAs. As of 2020, half of extra-EU exports were covered by reciprocal PTAs, up 8 percentage points from 2010 as trade agreements with Canada, Japan and Korea came into force (Dadush and Dominguez Prost, 2023)⁴⁷.

The December 2023 agreements⁴⁸ between the EU and Chile, an important exporter of some CRMs, to enhance and modernise their existing FTA, also shows how these agreements are not static, and should be updated if needed to reflect the increased focus on economic security.

However, mainly because of domestic political pressure, the EU has struggled to conclude trade agreements with major trading partners such as the Mercosur countries, while even negotiations with close allies like Australia have proven difficult⁴⁹.

Besides the difficulty of ratifying FTAs, there are other limits to relying on FTAs for diversification. Many of the products for which the EU has problematic import dependencies do not have significant tariffs precisely because there is no European industry that would justify protective measures.

Where Most Favoured Nation (MFN) tariffs offered to all WTO members are already very low, the EU cannot offer significantly better market access through an FTA compared to the access that, for instance, China has. This is the case for CRMs, many of which have no tariffs at all applied to them (Le Mouel and Poitiers, 2023).

Therefore, a diversification strategy must complement FTAs with external financial instruments⁵⁰. The European Commission aims to harmonise and streamline European development assistance under the umbrella of the Global Gateway.

Beyond its primary objective of promoting economic development globally, this initiative has as a stated goal to support the EU by *“strengthening the resilience of its supply chains, and to opening up more trade opportunities for the EU economy”* (European Commission, 2021b, p.2).

To an extent, this is indeed already happening. In October 2023 the EU signed Memoranda of Understanding under the Global Gateway framework with both the Democratic Republic of Congo and Zambia to deepen cooperation around the development of resilient value chains for critical raw materials, which could help to improve import diversification⁵¹.

More should be done in this area, such as potentially investing in infrastructure in northern Africa to further diversify European energy imports (as argued by Rizzi and Varvelli, 2023).

Export credit agencies (ECAs) should play an important role in this strategy, including the potential creation of a European export credit agency. ECAs are state-owned or publicly financed bodies that are used to support exports by providing a range of financing instruments (primarily insurance and guarantees, but also loans) at below market rates to de-risk trade.

Going beyond facilitating direct exports, they can also be used to support investments in third countries which, if targeted appropriately, can ultimately improve diversification of supply. A European ECA could compliment the 24 national ECAs (European Commission, 2023c)⁵². The support in question is significant, with EU ECAs in 2021 insuring projects amounting to approximately €90 billion (Schlögl *et al* 2023).

The ECAs' funding could be boosted and applied strategically to support the objective of economic security. It will not be commercially viable in a high-wage economy to produce many of the products for which the EU is reliant on imports from China. Some raw materials do not exist in Europe, or local resistance to their extraction could be too high.

In such cases, ECAs can play a critical role in promoting investments in alternative sourcing in partner countries (Le Mouel and Poitiers, 2023). Export-promotion offices could also be useful to help firms identified as being overly reliant on a particular export market to identify and access new markets.

The Enterprise Europe Network (EEN), a Single Market Programme-funded umbrella of national SME support organisations (including chambers of commerce and government agencies) already offers assistance to SMEs in the areas of 'resilience' and 'internationalisation'. This role, however, could be boosted, with awareness of the network at just 9 percent among SMEs⁵³.

6.3 Targeted industrial policy and interventions

For sectors that combine a high degree of dependency with a high degree of economic importance, diversification might not be enough to safeguard economic security. There are very few sectors from which macroeconomically significant impacts might arise because of supply chain shocks.

As noted, concerns beyond economic outcomes, such as defence and health, may justify such policies in other areas, but this group should also be limited. Three types of strategies are possible: (i) maintaining strategic reserves; (ii) growing domestic production; or (iii) improving productive capacities in third countries.

In some cases, stockpiling a certain buffer level will often be the most cost-effective option, but it is not always feasible. Certain goods (like medicines) might spoil, and in certain fast-moving sectors (for instance PVs), technology quickly becomes obsolete. As such, this should play only a limited role.

The global trend thus far has been to prioritise boosting domestic supply via industrial policy. Examples include the European Chips Act and the Net Zero Industry Act in the EU, the Inflation Reduction Act and CHIPS and Science Act in the US, and the K-Chips Act in Korea.

However, competing policies have led to costly subsidy races even among likeminded partners, and heavy-handed reshoring policies can have unintended consequences. Javorcik *et al* (2022) estimated that friend-shoring could generate global real GDP losses as high as 4.6 percent.

Reshoring drug production to avoid shortages could lead to prices increasing by up to 30 percent (Galdin, 2023). Import restrictions have likely contributed to shortages of infant formula in the US⁵⁴.

Meanwhile, producing green technology in Europe would lead to much higher decarbonisation costs, slowing the green transition and Europe's attempts to diversify away from Russian hydrocarbons. In the EU, the emphasis on national state aid also poses risks to the single market (see Kleimann *et al* 2023; Tagliapietra *et al* 2023)⁵⁵.

In the instances in which increasing domestic production is justified, a bespoke strategy should be designed for the sector in question that aims to minimise distortions and leverage the comparative advantages of the EU in that area.

For instance, McWilliams *et al* (2024) argued that an EU industrial policy for the solar panel industry should focus on recycling and innovation, not import substitution. Given the different abilities of EU countries to support their domestic industries, a 'Europeanisation' of state-aid tools such as the Important Projects of Common European Interests (IPCEIs) will be indispensable if single market fragmentation is to be avoided.

Currently, IPCEIs and similar policies, such as the European Chips Act and funding for clean tech through the Temporary Crisis and Transition Framework, rely on national funding. While they have to be part of a common European framework, individual projects are chosen via opaque processes by EU countries based on (sometimes competing) national interests. Project selection should rather be based on more thorough, transparent methodologies (Poitiers and Weil, 2022).

Internationalising industrial policy provides a very promising avenue to increasing the security of supply while simultaneously minimising protectionism, though international policy coordination will be challenging. Variations of this approach include critical raw materials (CRM) 'clubs' and the establishment of clean-tech partnerships to leverage different countries' relative comparative advantages, as proposed by García-Herrero *et al* (2023).

Beyond growing domestic production, technology security measures (such as export controls or outbound investment screening) to prevent diffusion in the aforementioned key sectors at risk of complexity-driven monopolisation, must also be complemented by policies that reinforce and strengthen existing advantages, through support for R&D, skilled immigration and via bespoke industrial policies.

In addition, policymakers must be aware of the risk of reciprocity in these measures (as was the case with China in 2023⁵⁶) and should therefore be judicious in their application.

In sum, there may be cases in which the risks associated with supply disruption warrant application of industrial policy to promote alternative supply chains, either in the EU or in other countries, or the imposition of technology security measures.

However, policymakers should not pretend that this is a cost-free approach, and need to weigh losing the gains from trade against the potential welfare losses from supply chain disruptions. If they opt for industrial policy, how exactly they choose to design this approach, in particular to minimise any protectionist elements, is critically important.

6.4 Ex-post instruments

While some goods and industries are of such strategic importance that they warrant state intervention, as discussed above, it would be prohibitively expensive to do so for all smaller industries that are exposed to economic security risks (think for instance again of the artificial flower industry identified by Mejean and Rousseaux, 2024).

Therefore, ex-ante policies alone will not suffice. Ex-post policies can help deter targeted attacks against such industries and can soften their impact when they do occur. The first instrument in this regard is the Internal Market Emergency and Resilience Act.

In cases of severe supply chain disruptions or the risk thereof, this law allows the EU to impose reporting obligations and build-up strategic stockpiles and, in case of crisis, it lists the potential ways in which the EU can intervene in supply chains (Ragonnaud, 2024).

However, the primary ex-post EU instrument to this end is the new Anti-Coercion Instrument (ACI, Regulation (EU) 2023/2675), a wide-ranging trade defence instrument intended to be applied in retaliation in cases of economic coercion against an EU country. To quote the Commission, *“the primary objective of the ACI is deterrence”*⁵⁷, and it will therefore be considered a success if it is never used. However, if triggered, the retaliatory measure could apply in virtually all areas of economic policy.

This instrument should be complemented with another instrument that helps share the burden of economic coercion. This would entail providing affected firms with financial and perhaps logistical support to enable them to find new markets for their exports or imports.

The logic behind supporting firms is twofold: it removes the ability of adversaries to target groups and inflict political damage on European countries, which they could try to leverage to change policy, and it supports firms that will likely have suffered a serious shock to their business model through no fault of their own.

While in most cases the economic damage from economic coercion will be small enough that national government could finance support for affected workers and firms, there would be several benefits from setting up an EU-wide tool.

EU solidarity assistance would reinforce the signal that an attack against one country is an attack against all and would disincentivise divide-and-rule strategies on the part of third countries⁵⁸.

It would also potentially allow firms in other countries that are indirectly affected by the coercive measures (eg. German firms that export to China but use Lithuanian components, in the case of sanctions against Lithuania) to be supported without the need for new state-aid schemes to be approved in each country.

Such a measure to fortify the joint EU response will become more important as other European countries, such as Czechia, pursue foreign policy akin to that of Lithuania (McVicar, 2023).

The challenge of this proposed instrument is that it introduces the potential for moral hazard. If firms believe that the EU will bail them out in the event of supply chain disruption, they may choose to deepen their exposure to geopolitical risks, rather than diversifying, increasing their potential exposure to economic coercion.

Similarly, countries themselves could feel emboldened to pursue foreign policy beyond the EU consensus, safe in the knowledge that their firms will be supported by other member states⁵⁹.

Therefore, any new ex-post instrument should be accompanied by new incentives for companies to diversify their supply chains and customer bases to limit potential abuse through moral hazard, as well as further progress on common foreign policy.

Part of this could be accomplished through the nature of the support itself. For instance, limiting support to capped, concessional loans with strict terms of use would reduce any perverse incentives to double down on critical imports from China.

Eligibility requirements should also be used to minimise these risks: receiving state aid could be made conditional on previously having fulfilled certain reporting obligations, having conducted risks assessments ('supply chain stress testing') or on companies insuring themselves against certain economic security risks in private markets⁶⁰.

There could be some symbiosis with the supply chain monitoring detailed previously, with firms operating in dependent sectors required to demonstrate diversification efforts before being deemed eligible for support, for example.

Overall, there is a need to strike a balance in both the nature of the instrument and the eligibility: too generous and lenient and there is the risk of moral hazard; too frugal and restrictive and the instrument could become pointless, unable to adequately support those negatively impacted and therefore failing to negate the political pressure points⁶¹.

For the success of both the deterrence value of the ACI and any EU-wide support scheme, a common or at least strongly coordinated foreign policy is a prerequisite. All EU countries should have to underwrite the potential backlash against a forceful application of the ACI and be willing to pay for EU assistance for affected companies, even if they did not necessarily agree with the action that provoked the coercion in question.

As detailed in Hackenbroich *et al* (2022), when considering their responses, countries must weigh up both the underlying policy and the value of preserving EU solidarity and unity against coercion, which will likely be successful if it succeeds in dividing member states.

With Lithuania, this was not the case, as other EU countries appeared unwilling to pay a price for a foreign policy action taken by Lithuania alone. Despite public proclamations of outrage by other EU countries, there was neither material support nor immediate retaliation against China for what even the Commission described as 'discriminatory trade measures'⁶².

In contrast to the US, which promised a \$600 million export credit agreement to Lithuania⁶³, and Taiwan, which established both a loan and investment fund focused on Central and Eastern Europe of approximately €190 million and €1 billion respectively⁶⁴, the only response from the EU was to allow Lithuania to provide state aid from its own finances (Box 2) and to file a complaint to the WTO⁶⁵.

This failed to send a message of European unity, nor did it create a precedent that could serve as deterrence against future economic coercion.

Therefore, it is unlikely that any additional support scheme could be introduced in the absence of further progress on aligning foreign policy.

7 Conclusion

The rise in global geopolitical tensions has coincided with deeper economic integration of EU and non-democratic countries, and an increase in the market concentration of EU imports. While the EU benefits from this trade in many ways, the links have also created economic security risks beyond traditional trade wars.

To counter these risks, the EU should invest in a deeper understanding of its supply chains and pursue targeted industrial policies in a small number of carefully selected industries of strategic importance.

However, the depth of exposure to economic coercion and other shocks stems from structurally more concentrated imports and exports. Unless the EU manages to diversify its trading relationships, many products will remain exposed.

While it is difficult to inflict macroeconomically-relevant harm through economic coercion alone, there are many products over which pressure could be applied on politically important constituencies.

Therefore, the EU should invest in ex-post policies that mitigate economic harm where it occurs. Such policies, taken together with deterrence through the threat of defensive measures under the ACI, would disincentivise the use of economic coercion against the EU.

However, for ex-post policies to be effective, a more common foreign policy is necessary, as otherwise common burden-sharing and unified responses are not credible. ■

Niclas Poitiers is a Research Fellow, and Conor McCaffrey is a Research Analyst, at Bruegel

Endnotes

1. Jean Pisani-Ferry, *'The Geopolitical Conquest of Economics'*, Project Syndicate, 30 September 2021.
2. For a discussion see Hillman (2022).
3. The G7 wants "coordinate our approach to economic resilience and economic security that is based on diversifying and deepening partnerships and de-risking, not de-coupling". See *G7 Hiroshima Leaders' Communiqué* of 20 May 2023.
4. "Many of you have heard the term 'small yard, high fence' when it comes to protecting critical technologies. The concept has been cited at think tanks and universities and conferences for years. We are now implementing it." *Remarks by National Security Advisor Jake Sullivan on the Biden-Harris Administration's National Security Strategy* on 13 October 2022.
5. We focus predominantly on China because of the documented potential exposure of EU firms to Chinese shocks; see for instance the survey results reported in Attinasi et al (2023). See Box 1 for a discussion of the US.
6. Given the potential for technological advantages to give monopolistic powers to semiconductor firms, coupled with the immense capacity for economic coercion in this sector, we believe that the 2023 export controls introduced by the Netherlands on advanced semiconductor manufacturing equipment are one of the very few instances in which technological defence measures can be justified by economic security arguments; for an English translation of the justification given by the Dutch government, see: https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-07/230721_CSISTranslations_Dutch_Export.pdf.
7. Article XXI of the General Agreement on Tariffs and Trade.
8. J Brunsdon, S Fleming, A Williams and J Politi, *'EU and US end Airbus-Boeing trade dispute after 17 years'*, *Financial Times*, 15 June 2021.
9. See European Commission Questions and Answers of 10 July 2023, *'EU-US Data Privacy Framework'*.
10. See https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/eu-us-trade-and-technology-council_en.
11. See The White House, *'G7 Leaders' Statement on Economic Resilience and Economic Security'*, 20 May 2023.

12. See The White House, *'Joint Statement by President Biden and President von der Leyen'*, 10 March 2023.
13. See European Commission, *'Speech by President von der Leyen on EU-China relations to the Mercator Institute for China Studies and the European Policy Centre'*, 30 March 2023.
14. See The White House, *'FACT SHEET: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China'*, 9 August 2022.
15. "It's important to recognize this is a national security action, not an economic one ... This executive order protects our national security interests ... Again, I want to be clear: This is a national security action, not an economic one." The White House, *'Background Press Call by Senior Administration Officials Previewing Executive Order on Addressing U.S. Investments in Certain National Security Technologies and Products in Countries of Concern'*, 10 August 2023.
16. See European Commission press release of 10 September 2019, *'The von der Leyen Commission: for a Union that strives for more'*.
17. See German Association of the Automotive Industry, <https://www.vda.de/en/news/facts-and-figures/annual-figures/exports>.
18. "Beijing frequently restricts trade by targeting imports of agricultural goods or commodities. Only on rare occasions has it employed or threatened to employ export restrictions, as was the case with rare earths to Japan in 2010" (Adachi et al 2022).
19. See Lim and Ferguson (2019) for a discussion of the use of boycotts by China during the dispute with South Korea regarding the THADD missile defence programme.
20. The Economist, *'How rare-gas supply adapted to Russia's war'*, 30 March 2023.
21. Some analysis has also pointed to Australia deciding to exclude Huawei from 5G infrastructure as a cause for the Chinese response; see Hackenbroich et al (2022).
22. The justifications given for these different de-facto import embargoes were both imaginative and spurious. For instance, mandatory testing for traces of heavy metal was introduced for the import of crustaceans, with the testing period long enough that live lobster exports could not survive the process (Buckland et al 2023).

23. The value of Australian exports to China did grow slightly over this period, because of an increase in the price of iron ores, a key input into the Chinese economy and overwhelmingly the largest component of Australian exports to China—averaging over 50 percent of monthly bilateral exports in 2019.
24. As detailed by Urden (2023b): “China started buying coal from Indonesia, which then cut its sales to India and elsewhere. India boosted its purchases of Australian coal that had previously gone to China”. Japan and Korea also massively increased their purchases of Australian coal over this period. This also coincided with energy shortages following the Russian invasion of Ukraine, which meant that coal prices increased significantly.
25. See Casey Hall and Xiaoyu Yin, ‘China’s wine market ready to welcome likely return of Aussie wine as ties improve’, Reuters, 3 November 2023.
26. Reports estimate it at two billion litres, see for example Rabobank news release, “Swimming in wine” – navigating oversupply in Australia’s wine industry’.
27. UN Comtrade data shows that Australian wine imports actually increased steadily each year between 2019 and 2022, which seems to suggest limits on the wine industries’ ability to diversify into the domestic market.
28. For instance, in May 2021, Lithuania became the first country to withdraw from the China-CEEC initiative.
29. The standard practice to avoid Chinese disapproval has been to allow institutions that represent the city of Taipei, not Taiwan. For more details on the actions undertaken by Lithuania, see Andrijuaskas (2022).
30. See Foreign Minister Gabrielius Landsbergis’ comments in Milda Seputyte and Natalia Drozdiak, ‘Lithuania Says Businesses Remain Wary on China Trade’, Bloomberg, 28 November 2023.
31. Dominique Patton and Andrias Sytas, ‘China suspends Lithuanian beef, dairy, beer imports as Taiwan row grows’, Reuters, 10 February 2022.
32. The decrease in Lithuanian imports and exports visible from late 2022 onwards was accounted for largely by the economic slowdown in trading partners and was unrelated to the Chinese actions.
33. This is unsurprising given the well-documented dominance of China in this supply chain.
34. The experiences also match those of South Korea during the THAAD dispute of 2016-17 (Lim and Ferguson, 2019).

35. Gabija Sabaliauskaitė, *„Invega“ stabdo paskolas nukentėjusiems nuo Kinijos veiksmų: iš 130 mln. Eur paskolų suteikta už 3 mln. Eur*, *Verslo žinios*, 6 February 2022.
36. We focus on individual goods categories rather than market values, as harm to an individual industry might come even from a low value if an indispensable import is affected.
37. See Mejean and Rousseaux (2024) for both a more detailed discussion of how to identify dependencies and a more comprehensive data exercise.
38. For a discussion, see Le Mouel and Poitiers (2023).
39. Mai Nguyen and Eric Onstad, *‘China’s rare earths dominance in focus after it limits germanium and gallium exports’*, *Reuters*, 21 December 2023.
40. For a discussion of the role of security concerns with regards to the US, see Box 1.
41. Due to capacity constraints, we do not consider here general policy measures to improve the single market, even if these measures could improve the competitiveness of European firms, thus likely contributing to the economic security of the EU. For a discussion on these measures, see Kleimann et al (2023).
42. Some have attempted to argue that potentially losing current comparative advantages in critical technologies constitute a threat to economic security, given that it may result in future import dependencies. In our view, this is currently too many degrees removed to fall under economic security concerns.
43. As discussed previously, there are some rare instances involving technology-induced monopoly that legitimise the use of technology security tools to maintain economic security.
44. See Sultan et al (2023), for example.
45. Formerly called the Single Market Emergency Instrument (SMEI).
46. See European Commission, *‘European Chips Act: Monitoring and crisis response’*, undated.
47. If intra-EU trade is also included, the average of EU countries’ exports covered by reciprocal PTAs was 81 percent.
48. For more information on the Advanced Framework Agreement and Interim Trade Agreement, see European Commission press release of 13 December 2023, *‘EU and Chile sign modern and ambitious trade and political agreements’*.

49. Negotiations between the EU and the Mercosur states on a deal began in 2000 and only concluded with an agreement in June 2019. Five years later, EU ratification is still awaited. The October 2023 breakdown in EU-Australian trade agreement negotiations also fails to bode well for the prospect of new deals on the horizon.

50. Article 5 of Regulation (EU) 2021/947 establishing the Neighbourhood, Development and International Cooperation Instrument (NDICI, the EU's primary international development tool) states that the EU should "seek to promote increased synergies and complementarities" between trade policy and sustainable development". See <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX%3A32021R0947>.

51. European Commission press release of 26 October 2023, '[Global Gateway: EU signs strategic partnerships on critical raw materials value chains with DRC and Zambia and advances cooperation with US and other key partners to develop the "Lobito Corridor"](#)'.

52. The Commission has raised concerns that national ECAs "do not follow overarching EU interest and policies... and can be also in competition with one another" (European Commission 2023b, p.7). It also argued that better coordination between national ECAs and EU and national development finance agencies could lead to better outcomes across a range of policy areas, including the sourcing of CRMs and "the trade aspects of EU geopolitical strategies" (European Commission, 2023b, p. 39).

53. Source: Flash Eurobarometer 537 (2023); Firms would likely be more aware of their local branches of the EEN, such as national export promotion offices.

54. Gabriella Beaumont-Smith, '[Rock-a-Bye Trade Restrictions on Baby Formula](#)', Cato at Liberty, 10 May 2022.

55. This already at a time when concerns are growing over single market fragmentation due to the relaxing of state aid rules following Russia's invasion of Ukraine; see Théo Bourgery-Gonse, '[EU subsidy race is on – and Germany is winning it](#)', Euractiv, 12 September 2023.

56. See Reuters, '[China export curbs choke off shipments of gallium, germanium for second month](#)', 20 October 2023.

57. European Commission, '[Questions & Answers regarding the Anti-Coercion Instrument](#)', undated.

58. This was a feature of Chinese measures against Lithuania, as it sought to pressure German industry to intervene. See for instance Andrius Sytas and John O'Donnell, [‘German big business piles pressure on Lithuania in China row’](#), Reuters, 21 January 2022.
59. This same moral hazard applies to the ACI, as discussed in Hackenbroich et al (2022).
60. To reduce the administrative burden, we would propose limiting these additional requirements to larger firms, with SMEs covered regardless.
61. The lack of uptake of the Lithuanian support scheme warrants consideration.
62. See European Commission press release of 26 April 2022, [‘State aid: Commission approves €130 million Lithuanian scheme to support companies affected by discriminatory trade restrictions’](#).
63. Andrius Sytas, [‘Lithuania to get U.S. trade support as it faces China fury over Taiwan’](#), Reuters, 19 November 2021.
64. Giedre Peseckyte, [‘Taiwan encourages companies to invest in Lithuania to deepen bilateral cooperation’](#), Euractiv, 3 October 2023.
65. European Commission press release of 7 December 2022, [‘EU requests two WTO panels against China: trade restrictions on Lithuania and high-tech patents’](#).

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Innovation, integration and independence

As payments transition into the digital era, Piero Cipollone argues we need to take SEPA to the next level through the digital euro and private pan-European payment solutions

The Single Euro Payments Area (SEPA) was launched in 2002, aiming to address the fragmentation in non-cash payments that prevailed at the time. Payments between euro area countries were slower, more cumbersome and more expensive than domestic payments. And yet, many market participants questioned the merits of the project: will SEPA make payment services more efficient? Will it make the economy more competitive? And will it deliver real benefits to customers?

Fast-forward to today and it is clear that the initial scepticism was unfounded. We no longer differentiate between national and crossborder payments in euro for credit transfers and direct debits¹. And people really appreciate the benefits of these two payment services for seamless money transfers across Europe.

However, SEPA has fallen short when it comes to digital payments that are even more central to our daily lives: there is no SEPA at the point of interaction, namely for in-store, mobile or e-commerce payments. Person-to-person (P2P) solutions also remain fragmented.

Most European retail payment solutions are focused on national markets, covering only some use cases and lacking pan-European reach. Because of this fragmentation, crossborder transactions within the euro area have become dependent on a very small number of non-European market players. This hampers competition, innovation and resilience.

Moreover, the digitalisation of payments is undermining the crucial role cash plays in financial inclusion. After all, it is the only means of payment that has legal tender status and can be used by anyone, anywhere in the euro area, free of charge.

As a result, we are once again at a crossroads. And just like in the past, the added value of taking SEPA to the next level is now being questioned: do we *really* need a Single Euro Payments Area at the point of interaction? Do we *really* need a digital euro?

The answer, much like two decades ago, is an unequivocal yes. We cannot afford to settle for the status quo. And we should ask ourselves some hard questions: why aren't European retail payment solutions and platforms able to compete at the global level?

We now stand at a crossroads as payments transition into the digital era, with the risk of crowding out public money, and European providers fail to be competitive on a pan-European, let alone global, scale

Today, the market capitalisation of the largest European bank is several times lower than that of the dominant international card schemes. European payment solutions struggle to compete with these non-European payment providers even within Europe, while in the United States new retail payments companies succeed in scaling up rapidly².

In my remarks I will argue that this has to do with the difficulty European payment service providers (PSPs) have in reaching pan-European scale. And I will advocate a comprehensive vision encompassing both public and private retail payments.

Our goal is clear: to further integrate European payments with a view to supporting competition and innovation, while reducing excessive dependencies. Payments offer significant scope to deepen the Single Market in the interest of users and to enhance the competitiveness of European financial services³.

To emulate the success we had with the launch of the SEPA project, we need to resist the temptation to preserve the status quo. Instead, we must act, relying on the combined knowledge, expertise and efforts of both public authorities and private intermediaries to achieve a single area for retail payments in euro. The benefits in the medium and long run will be much greater than the initial investment costs. The ECB is calling on the payments industry to redouble its efforts.

Retail payments remain fragmented and dominated by a few non-European players

Despite the integration of the euro retail payments market over the past 15 years⁴, today's ecosystem is facing three major challenges.

Fragmentation along national lines

First, European payment solutions remain fragmented along national lines. Currently, European solutions for payments at the point of interaction, whether in physical shops, mobile or e-commerce, are scarce and mostly confined within national borders⁵.

And we do not have a European digital solution for P2P payments covering the entire euro area. Instead of joining forces and sharing resources to develop pan-European solutions, national communities have often preferred to preserve the legacy of investments made in the past.

Consequently, citizens who live, work, travel or shop online in another euro area country find themselves reliant on very few, non-European solutions. And small companies that consider expanding their business across borders or online may be more reluctant to do so given the need to rely on those solutions and bear the associated costs.

We are thus in a paradoxical situation: the fragmentation of European payment solutions along national lines stands in the way of deepening the Single Market and further digitalising the economy. But efforts to reduce barriers to trade and accelerate digitalisation within the EU generate additional revenue for the few non-European players that currently make it possible to pay in shops and online across Europe, entrenching their dominant position.

Some of the benefits of digitalisation and market integration are thus at risk of not reaching European consumers and instead growing the rents of non-European players.

Limited competition at the point of interaction

Second, the failure of European payment solutions to achieve pan-European scale, and often to even go beyond their domestic market, has resulted in limited competition at the point of interaction. This issue is particularly

pronounced for card payments, which, in terms of value, now account for the majority of retail payment transactions⁶.

Their share in the total number of digital transactions has also been increasing, while that of credit transfers and direct debits has receded (Chart 1).

According to the most recent data, international card schemes account for close to two-thirds (64%) of all electronically initiated transactions with cards issued in the euro area⁷. And 13 out of the twenty euro area countries rely on them entirely due to the absence of a national card scheme (Figure 1).

The share of international card schemes is likely to grow further⁸, as even the largest domestic card schemes are losing market share⁹. The latter should be wary of this development: while for the time being they maintain a steady revenue stream as card transaction values and volumes increase, this may well change once the market matures.

Competition is also hampered by barriers to entry, which hinder the emergence of new competitors. For instance, in the case of contactless transactions, which are rapidly becoming the new norm in card payments, potential new entrants face the challenge of costly and time-consuming terminal updates.

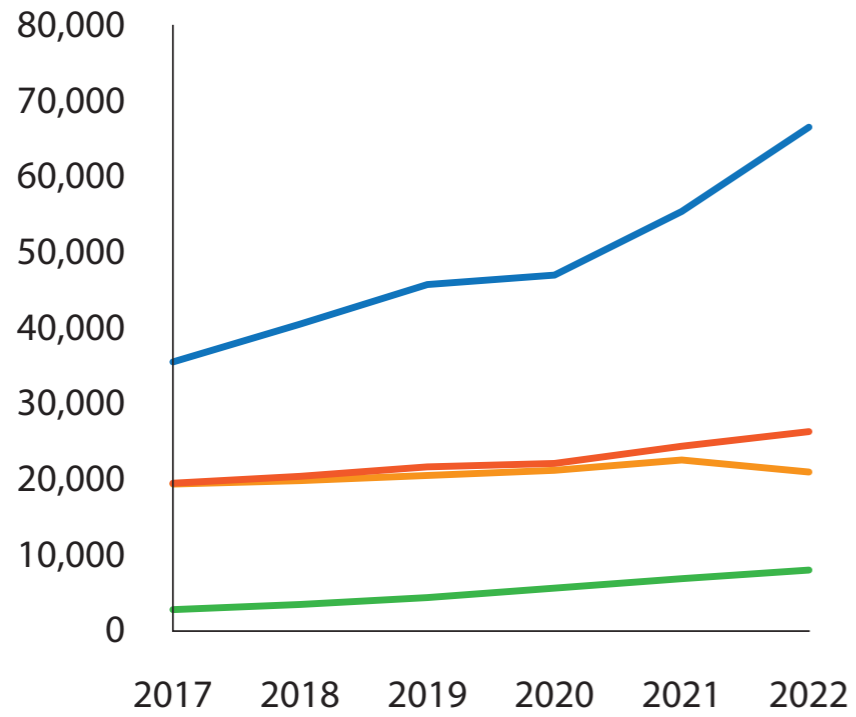
The lack of a widely available European open near-field communication (NFC) kernel further compounds this issue, forcing new entrants who want to offer contactless payments with mobile devices in stores to either abandon their efforts or depend on existing kernels provided by competitors.

Limited competition in card payments translates into higher fees. According to a recent study by the European Commission, the average net merchant service charges applied by card schemes in the EU almost doubled between 2018 and 2022 (from 0.27% to 0.44%)¹⁰, resulting in significant additional costs for merchants¹¹.

Chart 1. Payments per digital transaction type in the euro area

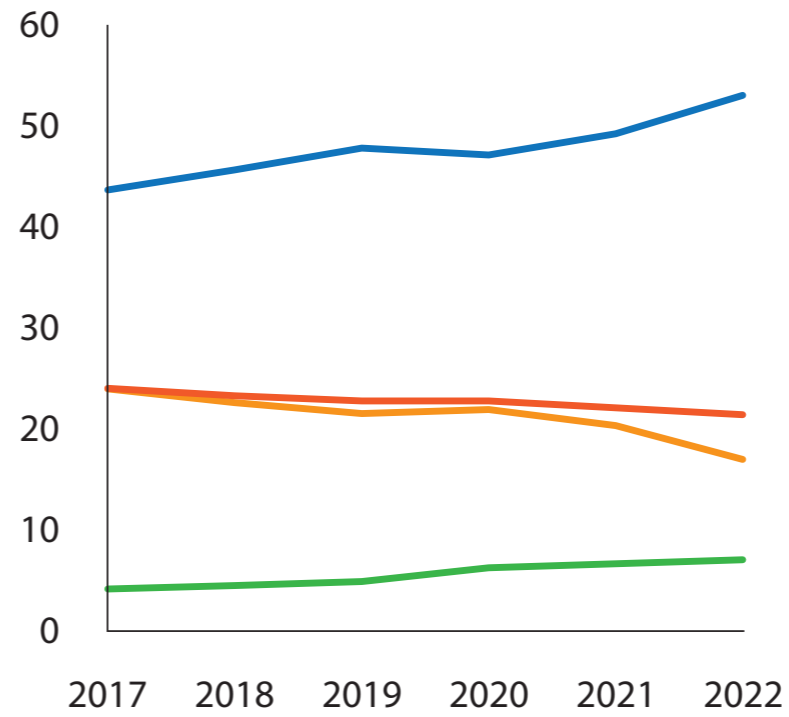
Number of payments per digital transaction type, per year

(millions)



Share of total number of digital transactions

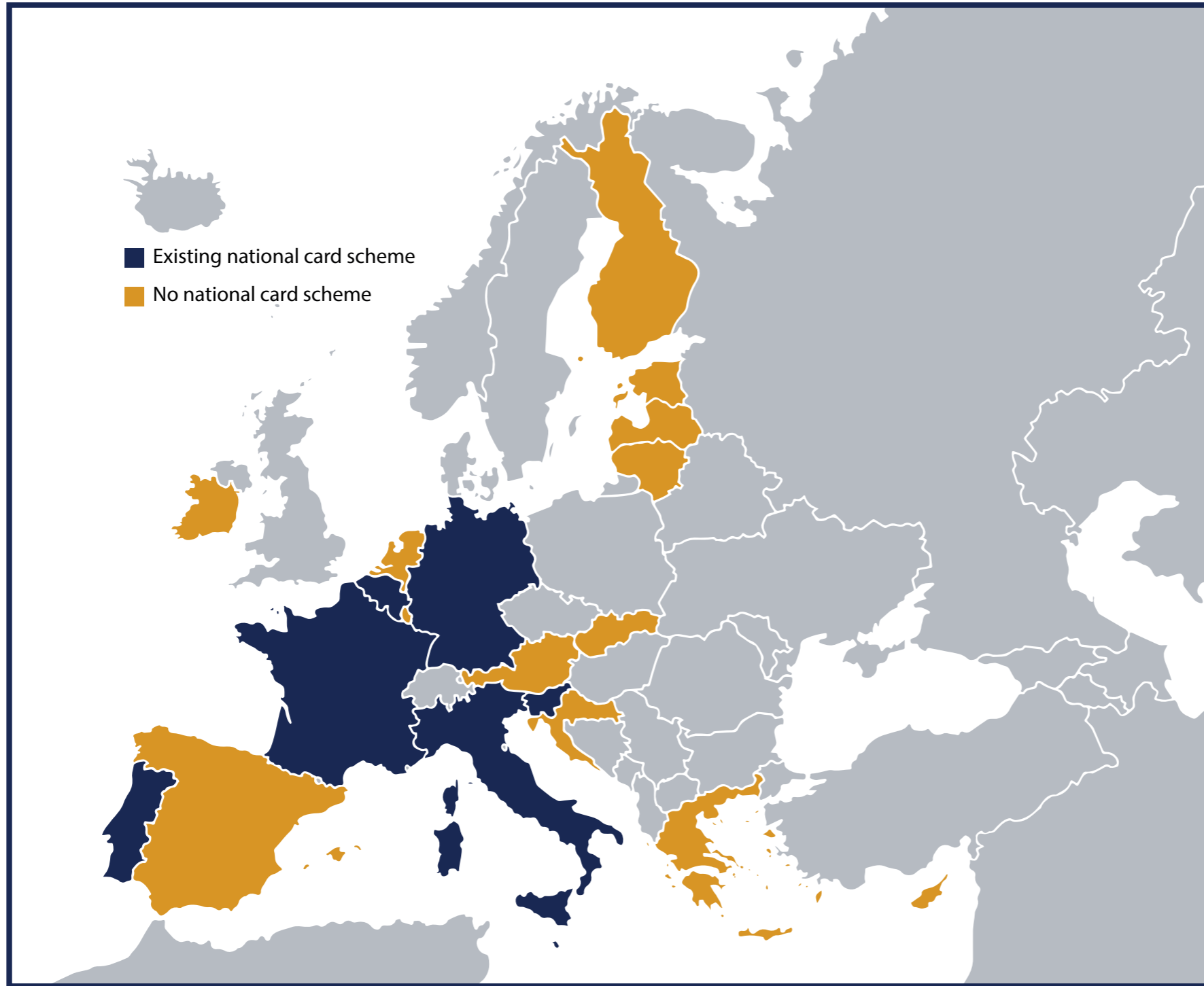
(percentages)



- Card payment
- Credit transfer
- Direct debit
- E-money payment

Source: ECB statistics.

Figure 1. National card schemes



Source: ECB data.

When those are passed on to consumers, the effect is similar to a consumption tax, albeit one that does not benefit European governments. Furthermore, European merchants criticise the complexity and opacity of card scheme fees, which make it difficult to understand why they are charged so much.

The lack of competition is a problem in other segments, too, such as e-commerce, mobile and P2P payments. While some national initiatives have seen success in specific use cases¹², they fall short when competing with global players on a pan-European scale.

Moreover, big techs entering payments creates further risks, as they could leverage their dominant positions in neighbouring markets and their closed ecosystems. For instance, Apple's significant market power in smart mobile devices and its dominant position in mobile wallet markets on the iOS operating system have raised concerns about anticompetitive behaviour¹³.

It led to the opening of a formal antitrust investigation in connection with Apple Pay, the only mobile wallet solution that Apple allows to access the NFC antenna on iOS devices¹⁴.

Dependence on non-European payment providers

The dependence on non-European players is the third major challenge for euro area retail payments. Openness to global competition is essential for fostering innovation. But without a genuine pan-European alternative to international card schemes, payments are more expensive for consumers and merchants. And an overreliance on non-European providers makes our payments and financial system more vulnerable to external disruptions.

European alternatives would improve the resilience of the euro area and the Single Market to such disruptions. And it would increase Europe's ability to set its own standards, rather than depending on standards established elsewhere. Europeans should have more control over an asset as crucial to our economy and society as payments.

The Eurosystem's response: our retail payments strategy and digital euro project

To tackle these challenges effectively, we must take decisive action to move away from the status quo. And I would like to thank Commissioner McGuinness and the European Commission as a whole for their continuous support and legislative ambition in this regard.

At the ECB we envisage a future where retail payments are faster, cheaper, easier and more resilient, thanks to a diversity of pan-European means of payment using European infrastructure. And we do not want this to happen ten years from now, but much sooner.

An old proverb says: *"the best time to plant a tree is 20 years ago, the second-best time is now."* Digitalisation and geopolitics are not standing still. This is why our strategy aims at fostering integration, innovation and independence, all for the benefit of users.

Our proposal encompasses two complementary transformation policies, mirroring the dual pillars of the financial system: public money and private money. These policies are not contradictory by nature; rather, they complement each other and enhance the overall functioning of the European retail payment system.

Our policy on public money

On the public money side, the Eurosystem maintains a steadfast commitment to issuing cash. Our pledge¹⁵ is to ensure that cash remains widely available and accepted as both a means of payment and a store of value. Therefore, the ECB strongly supports¹⁶ the establishment of rules on the legal tender status of euro banknotes and coins across the euro area.

Banknotes have played a crucial role in integrating payments within the euro area for over two decades, by providing a simple and universally accepted payment method. As we transition into the digital age, it is imperative that we preserve the same level of integration and ensure that our currency remains future proof.

There is no reason why public money should not go digital in keeping with all the other forms of payment. We need to adapt to evolving consumer preferences, which are increasingly digital. So the status quo is no longer a viable option. This is why we have launched the digital euro project, currently in its preparatory phase¹⁷. A digital form of cash holds the promise of preserving the pivotal role of central bank money (Figure 2).

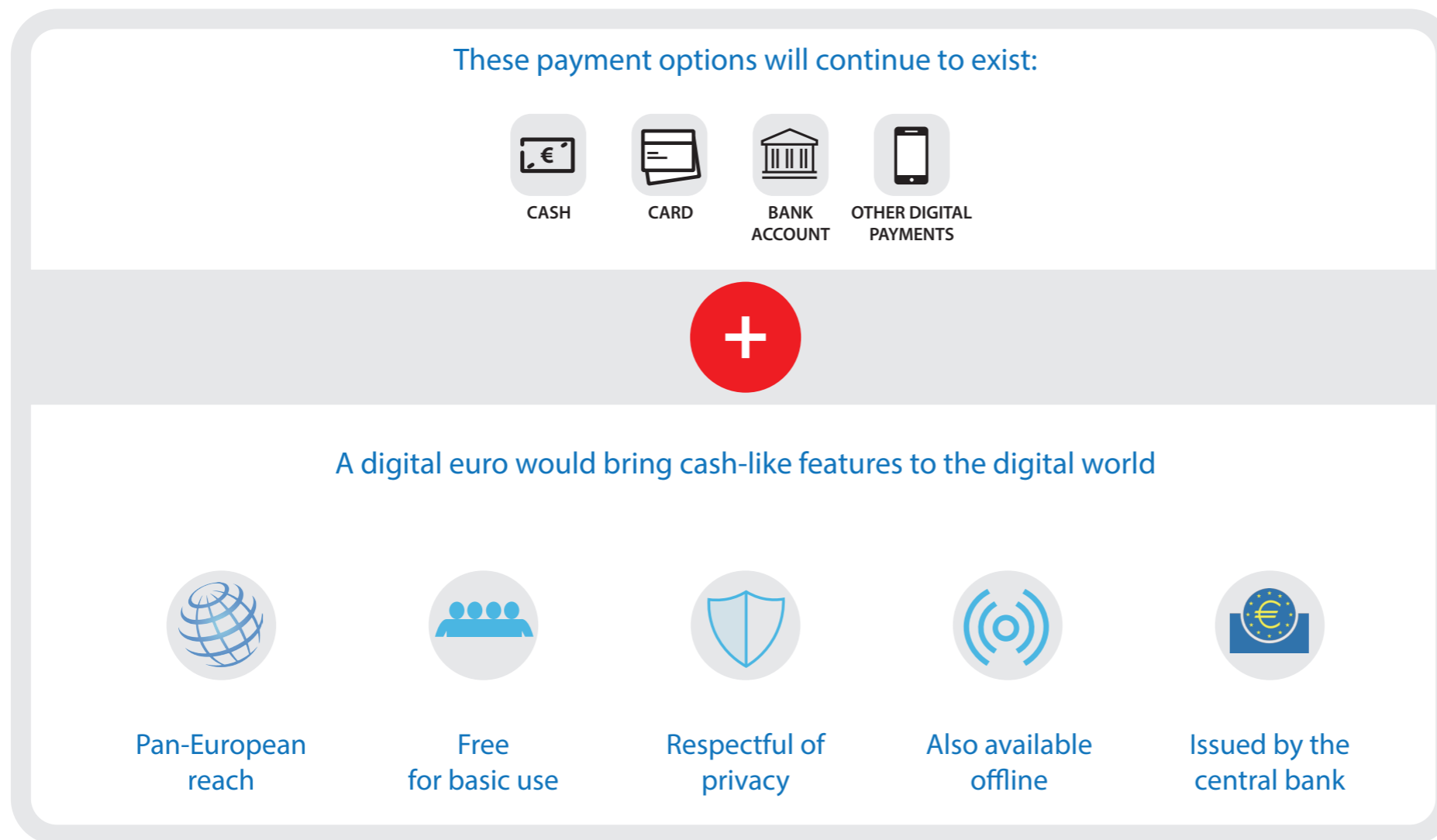
First and foremost, a digital euro would provide unparalleled pan-European reach, ensuring that payments can be conducted seamlessly anytime, anywhere within the euro area, for all types of digital payments (Table 1).

Moreover, as a public good, a digital euro would be provided to citizens free of charge for basic use. Crucially, a digital euro would uphold stringent privacy and inclusion standards, safeguarding user data and rights in the digital age.

Furthermore, a digital euro caters to a diverse range of payment scenarios, covering everything from online transactions to in-store purchases and P2P payments, both online and offline. The offline digital euro will provide a level of privacy very close to cash, while also contributing to resilience and inclusion.

Unlike existing payment methods, a digital euro would offer a comprehensive solution that aims to meet all – rather than just a few – of the evolving needs of modern consumers. Besides covering point-of-sale, e-commerce and P2P payments across the euro area, it would offer seamlessly integrated online and offline functionalities, ensuring that transactions would not be interrupted - even in a situation of limited network coverage or a power outage. No existing payment method offers all these benefits at once.

Figure 2. Digital euro, a digital form of cash



Source: ECB.

Table 1. Availability of the digital euro in all retail payment scenarios in the euro area

Comparison of the availability of the main retail payment methods across retail payment scenarios

	Cash		National schemes (card or account-based)		International schemes (card or account-based)		Digital euro	
	Domestic	Euro area	Domestic	Euro area	Domestic	Euro area	Domestic	Euro area
P2P payments	Yes*	Yes*	Some	No	No	No	Yes	Yes
POS payments	Yes	Yes	Yes**	No***	Yes**	Yes**	Yes	Yes
E-commerce payments	No	No	Some	No***	Yes**	Yes**	Yes	Yes

Notes: *Only proximity transactions, unless mailing cash. **Where accepted. ***Only through co-branding with international schemes.

Source: ECB.

Finally, the digital euro will leave no one behind. Promoting digital financial inclusion is a fundamental principle underlying the concept of a digital euro, as also reflected in the relevant draft regulation¹⁸. The Eurosystem is thus committed to offering a digital euro app in an inclusive and accessible way for people with low digital and financial skills and resources, as well as those with disabilities or functional limitations and the elderly.

While private intermediaries will be able to integrate digital euro services into their own banking apps and wallets, a digital euro app offered by the Eurosystem would not only support accessibility – a feature that is important to consumers¹⁹ – but also ensure that public money remains tangible for people by ensuring a harmonised, baseline user experience across the euro area.

It would be made available in at least all official languages of the EU and be designed such that everybody will immediately recognise the digital euro, just as everybody can recognise euro banknotes today. And smaller PSPs that lack the resources to develop their own front-end solutions would be able to distribute digital euro services through the digital euro app. This app is thus essential for achieving the objectives of the digital euro.

At the same time, the app offered by the Eurosystem would not impinge on the relationship between PSPs and their customers: it would merely provide a uniform point of entry allowing users to interact with their PSP via a smartphone, for example to display information or initiate payments²⁰.

Moreover, PSPs will be free to provide customised value-added services in their own apps and wallets, going beyond the basic payment functionalities supported by the digital euro app.

Our policy on private money: the retail payments strategy

While the digital euro complements private solutions by giving citizens an additional option for digital payments, it alone cannot resolve all the challenges facing European payments today and in the future.

That's why our vision on payments entails a strategy²¹ centred on fostering the development of *privately* operated, European-governed, pan-European payment solutions at the point of interaction.

The Eurosystem supports market-led initiatives that meet a set of requirements it has defined for a European solution at the point of interaction²². The ECB therefore welcomed the European Payments Initiative (EPI), which has recently made further significant progress towards a European-grown instant payment solution, including the establishment of EPI Company, development of its brand, completion of acquisitions²³, and the pilot of instant P2P

transactions. The ECB encourages EPI to continue its progress and to expand its geographical coverage to achieve pan-European reach.

Furthermore, the ECB views initiatives by mobile payment solutions and third-party providers favourably, recognising that they may enhance competition at the point of interaction. For instance, a recent collaboration involving three national mobile payment solutions²⁴ seeks to achieve interoperability in P2P transactions as a first step - and potentially also interoperability at the point of interaction in the coming years. Interoperability could be viewed as an intermediate step towards merging into a single payment solution.

While these European initiatives demonstrate market vitality, we need to avoid fragmentation. The division of consumers and merchants along geographical lines – with national communities joining solutions that cover only parts of the euro area – runs counter to the Eurosystem's vision of *pan-European* reach. This fragmentation would also prevent payment solutions from taking advantage of the sheer scale of the Single Market.

So how can we avoid this undesired outcome and move towards a win-win situation for all payment providers? One solution is to further develop the interoperability between conceptually different solutions. But we would need to see that this approach generates sufficient resources to sustain a common governance, shared functions and product innovation. Furthermore, some countries have national solutions with low market shares while others have none at all.

Therefore, while working to make progress on their current plans, private initiatives and national communities could consider joining forces to create strong integrated solutions and aim for pan-European reach within a reasonably short time horizon.

Although this has not materialised so far, it could be short-sighted to stick to positions taken in the past rather than grasp the opportunities offered by a landscape in transformation.

Our policy on the complementarity of public and private money

The public sector can facilitate such initiatives to reach pan-European scale. In particular, the digital euro could play a key role in shaping open standards. This could allow intermediaries to optimise their implementation strategies and unlock both technological and monetary benefits.

To ensure a seamless implementation of the digital euro and a consistent payment experience across the euro area, the Eurosystem is actively working on a digital euro rulebook. This rulebook will implement common standards in the EU acceptance network. It will be designed to leverage existing standards while also preserving ample flexibility for the market to innovate and develop additional solutions²⁵.

The digital euro rulebook, along with a robust infrastructure provided by the Eurosystem, would allow private providers to reach pan-European scale with their own payment solutions, achieving cost efficiencies and contributing to an integrated European payment market.

This infrastructure would serve as a catalyst for innovation, enabling the development of new value-added services tailored to customers' needs emerging in the digital age. We envision the digital euro infrastructure as being like a unified European railway network, where various companies can operate their own trains delivering additional services to their customers.

Imagine the following possibilities: innovative front-end solutions designed for conditional payments, functionalities enabling effortless bill-splitting among friends and family, or micropayment applications making it easier to buy online content and services.

These innovations could enhance the overall user experience, enable new business models and drive greater convenience in our day-to-day transactions. Some of these innovative and value-added services are already present in some countries, but it is very expensive for the providers to expand their services across the entire euro area.

On the one hand, the possibility to leverage the open digital euro infrastructure would ensure the necessary standardisation, the lack of which currently hinders innovation; on the other, it would enable private retail payment solutions to launch new products and functionalities immediately on a broader scale. This would give users access to a wider array of services and result in greater competition and innovation on a continental scale. It would also mitigate our current dependence on a few non-European providers.

For example, an open digital euro infrastructure would allow a Belgian citizen to open an account with a payment service provider in Spain that may offer services not yet available on the Belgian market. And new services could be developed such as automatic refunds when rail journeys or flights are delayed.

In addition, private sector players could also review and enrich the portfolio of their payments products in private money, providing customers with new options like rewards, bonuses and subscriptions. Or they could explore the cross-selling of core business products. Also, the competitive rush towards the use of friendly and secure technologies could improve customer experience.

Beyond the point of interaction: strengthening the 'classic SEPA'

But our retail payments strategy extends beyond the point of interaction. The second major goal of the Eurosystem's strategy is to strengthen the 'classic SEPA' framework, which provides the backbone for innovative European payments. SEPA has been a joint undertaking since the beginning. Both private and public clearing and settlement mechanisms have contributed to pan-European reach and resilience.

A key priority within this framework is the full deployment of instant payments. However, their roll-out has so far not enabled users to take full advantage of the important benefits that instant payments could generate. For instance, instant payments give consumers a clearer picture of their finances.

And for businesses, they reduce the amount of money locked in processing, allowing for better cash and liquidity management and reducing the need for overdraft facilities. Instant payments can also trigger faster deliveries and real-time reconciliation of payments, as well as increasing the digitalisation of corporate supply chains.

The ECB welcomes the recent regulation on instant payments²⁶, which aims to address obstacles such as the fragmented adherence of PSPs to the scheme and limiting transaction fees for payers.

Additionally, ongoing initiatives such as the SEPA Payment Account Access (SPAA) scheme contribute to enhancing independence and innovation. The scheme leverages 'open banking' principles in payments. For a fee, participants can exchange data related to payment accounts and initiate payment transactions with premium features.

SPAA-based payment solutions can provide a variety of account-to-account payment options as an alternative to cards at the point of interaction. The ECB welcomes this innovative European road to 'open banking' and encourages market players to join the scheme.

However, the effectiveness of new schemes can sometimes fall short of expectations. For instance, PSPs implement proprietary solutions instead of using the newly designed SEPA schemes. Or key users discard core features of the instant payments scheme intended to offer functionalities equal to or better than those of traditional cards.

Beyond these particular cases, clarifying the reasons for such shortcomings may be worthwhile. The Eurosystem stands ready to help reflect on how to improve payment-related schemes.

Preparing for the transformation

Addressing these challenges and fulfilling our common vision for the future of retail payments requires industry readiness. The oft-voiced argument that resources are constrained points to the need for a shift in perspective. While past resource allocations may seem entrenched, we are entering a new phase in payments that demands additional efforts, re-allocation of resources and proper planning from industry stakeholders.

Moreover, confining these investments to national level is neither efficient nor sustainable, especially in the light of the significant influence wielded by non-EU players in the digital landscape. Opting for joint EU investments and leveraging economies of scale would enhance the efficiency and effectiveness of our common efforts. And aligning these investments with the introduction of the digital euro would further maximise outcomes.

But it is crucial to recognise that this is not solely about costs. Just as SEPA facilitated the adoption of new standards and honed skills in the payments sector, the integration of private and public solutions at the point of interaction can foster innovation and resilience and benefit the economy.

Conclusion

Innovative, integrated and independent retail payments are crucial components of our monetary system. Indeed, as Tommaso Padoa-Schioppa cautioned over two decades ago, *“Public confidence in the currency could be endangered if retail payment [instruments and] systems were inefficient, impractical for users or unsafe.”*²⁷

The efforts made since then including the establishment of SEPA and the widespread acceptance of cash as a universally accepted payment method, were crucial for achieving a higher level of integration and efficiency in European retail payments.

However, we now stand at a crossroads as payments transition into the digital era, with the risk of crowding out public money, and European providers fail to be competitive on a pan-European, let alone global, scale.

To address these challenges, we have set up two transformation strategies: the digital euro and the retail payments strategy, the latter focusing on private pan-European payment solutions at the point of interaction.

The digital euro will not only give European citizens more freedom of choice and the ability to pay with a secure solution that is widely accepted throughout the entire euro area. It will also establish a common infrastructure with pan-European reach, on which private intermediaries can build to offer competitive and innovative private payment solutions across Europe.

Today we need to take SEPA to the next level, at the point of interaction, through the digital euro and private pan-European payment solutions. Public-private cooperation can achieve greater integration, innovation and independence in payments, to the benefit of consumers and payment service providers. Together we can recapture the original spirit of SEPA. ■

Piero Cipollone is a Member of the Executive Board of the European Central Bank

Endnotes

1. Direct debits allow customers to authorise companies or organisations to take money directly from their payment accounts to pay their bills.
2. For instance, Stripe – which was established by Irish entrepreneurs – scaled up rapidly in the United States and is currently valued at USD 65 billion.
3. Letta, E (2024), *“Much More than a Market – Speed, Security, Solidarity: Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens”*, high-level report on the future of the Single Market.
4. The *Payment Services Directive 2007/64/EC* entered into force in 2009, creating a harmonised legal framework for the provision of payment services in the European Union.
5. There are notable exceptions of European providers going beyond the country of origin, such as Bluecode, Satispay and a few others.
6. The *SPACE 2022 study* shows that in terms of value of payments, cards (46%) accounted for a higher share of transactions than cash payments (42%). Card payments were used in 34% of point-of-sale transactions, up from 19% in 2016 and 25% in 2019. For payments over €50, cards were the most frequently used method.
7. Volume share of international card schemes in total electronically initiated card payments with cards issued in the euro area and transactions acquired worldwide for the first half of 2023. Based on data collected under Regulation (EU) No 1409/2013 of the European Central Bank on payments statistics (ECB/2013/43), as amended.
8. *Börsen-Zeitung* (2024), “Visa is investing billions to increase acceptance”, 14 February.
9. *Le Parisien* (2024), “CB, Visa et Mastercard: la guerre des cartes bancaires fait peur aux commerçants”, 22 March.
10. European Commission (2024), *Study on new developments in card-based payment markets, including as regards relevant aspects of the application of the Interchange Fee Regulation - Final Report*, February.
11. A rough estimate suggests that card schemes’ revenues from merchant services charges in the euro area may have increased by more than €7 billion between 2018 and 2022, reflecting both the increase in fees per transaction and the increase in the value of card transactions. In 2022, card payments amounted to €2.74 trillion in the euro area, compared with €1.8 trillion in 2018 (source: ECB Payments Statistics).

12. For instance, Bizum in P2P payments, iDEAL in e-commerce.
13. European Commission (2024), [“Antitrust: Commission seeks feedback on commitments offered by Apple over practices related to Apple Pay”](#), press release, 19 January.
14. For details on the investigation, see the [Commission’s website](#). See also the [letter](#) sent by Piero Cipollone to Commission Executive Vice-President Margrethe Vestager and his [letter](#) to Commissioner Thierry Breton regarding the commitments offered by Apple over access restrictions to NFC technology.
15. Further details on the Eurosystem cash strategy can be found on the [ECB’s website](#).
16. [Opinion of the European Central Bank of 13 October 2023 on a proposal for a regulation on the legal tender of euro banknotes and coins \(CON/2023/31\)](#).
17. Further details on the digital euro project can be found on the [ECB’s website](#).
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20. See ECB (2023), [“A stocktake on the digital euro”](#), 18 October.
21. ECB (2023), [“The Eurosystem’s retail payments strategy - priorities for 2024 and beyond”](#).
22. (1) Pan-European reach and customer experience; (2) convenience and cost-efficiency; (3) safety and security; (4) European brand and governance; (5) global acceptance (in the long run).
23. ECB (2023) [“ECB welcomes the EPI’s progress on building a European payment solution”](#), MIP news, 25 April.
24. SIBS, BANCORMAT and BIZUM (2023) [“Leading European mobile payment solutions MB WAY, BANCORMAT Pay, and BIZUM establish a partnership for interoperability”](#), 14 December.
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26. [Regulation \(EU\) 2024/886 of the European Parliament and of the Council of 13 March 2024 amending Regulations \(EU\) No 260/2012 and \(EU\) 2021/1230 and Directives 98/26/EC and \(EU\) 2015/2366 as regards instant credit transfers in euro](#).

27. BIS (2003), *Policy issues for central banks in retail payments*, March.

This article is based on a [speech](#) delivered at the ECB conference on 'An innovative and integrated European retail payments market', Frankfurt, 24 April 2024.

The European defence industrial strategy

Europe needs to progress with the development of its defence industry. Guntram Wolff argues that the European defence industrial strategy helps to focus thinking but has significant flaws

In the context of the war in Ukraine and the deteriorating security situation on the continent, the European defence industrial strategy (EDIS), proposed on 5 March¹, aims to achieve “*EU readiness through a responsive and resilient European defence industry.*” Putting aside the unfortunate acronym², the strategy is an important plan with a lot of detail, providing deep insights into Brussels’s thinking on a sector that has for a long time been rather neglected in policymaking.

According to the strategy, the European defence technological and industrial base (EDTIB) – the EU defence industry broadly defined including SMEs working in the sector – had an estimated turnover of €70 billion and exports worth more than €28 billion in 2021, employing around 500,000 people. Boosting the production capacity of the EDTIB is important both for the delivery of ammunition and weapons for Ukraine and for the defence readiness of European countries.

The EDIS plan aims to reduce fragmentation in the European defence industry and reduce weapons imports. It has a goal of increasing the value of intra-EU defence trade to 35 percent of the value of the EU defence market by 2030 and of ensuring that by 2030 at least 50 percent of EU countries’ defence procurement comes from the EDTIB. Finally, it wants to ensure that member states procure at least 40 percent of defence equipment in a collaborative manner.

The strategy document sets the tone in the European debate towards a more positive assessment of the defence industry. It also rightly calls for less fragmentation and a stronger single market for defence products. It summarises many key figures and data. Yet, it also raises many questions, both on facts and on why the proposed strategy is superior to the current shape of Europe’s defence industry. There are also important omissions. Four aspects of EDIS might need modification.

Too positive?

First, the strategy's assessment of EDTIB capacities is overly positive. While ammunition production has increased substantially in the last two years, it still falls short of needs. Industry players such as Rheinmetall give lower numbers than the 1.4 million shells that the strategy document claims that EDTIB will produce in 2024³.

A more integrated single market for defence products would help reduce costs with better use of comparative advantages and the ability to increase scale in production

Certainly, Europe has fallen short of producing and delivering the promised one million shells by March⁴. It is estimated that only by 2026 will Europe be able to produce enough ammunition for Ukraine⁵. UK think tank RUSI estimates that Russia has been able to increase its production of shells to over 2 million per year⁶, giving it an advantage for 2024 and possibly 2025. And while RUSI also identified significant challenges for Russian production after 2025 because of limitations in capacity to refurbish old equipment, it does highlight that Russia has been able to secure foreign supply from Belarus, Iran, North Korea and Syria.

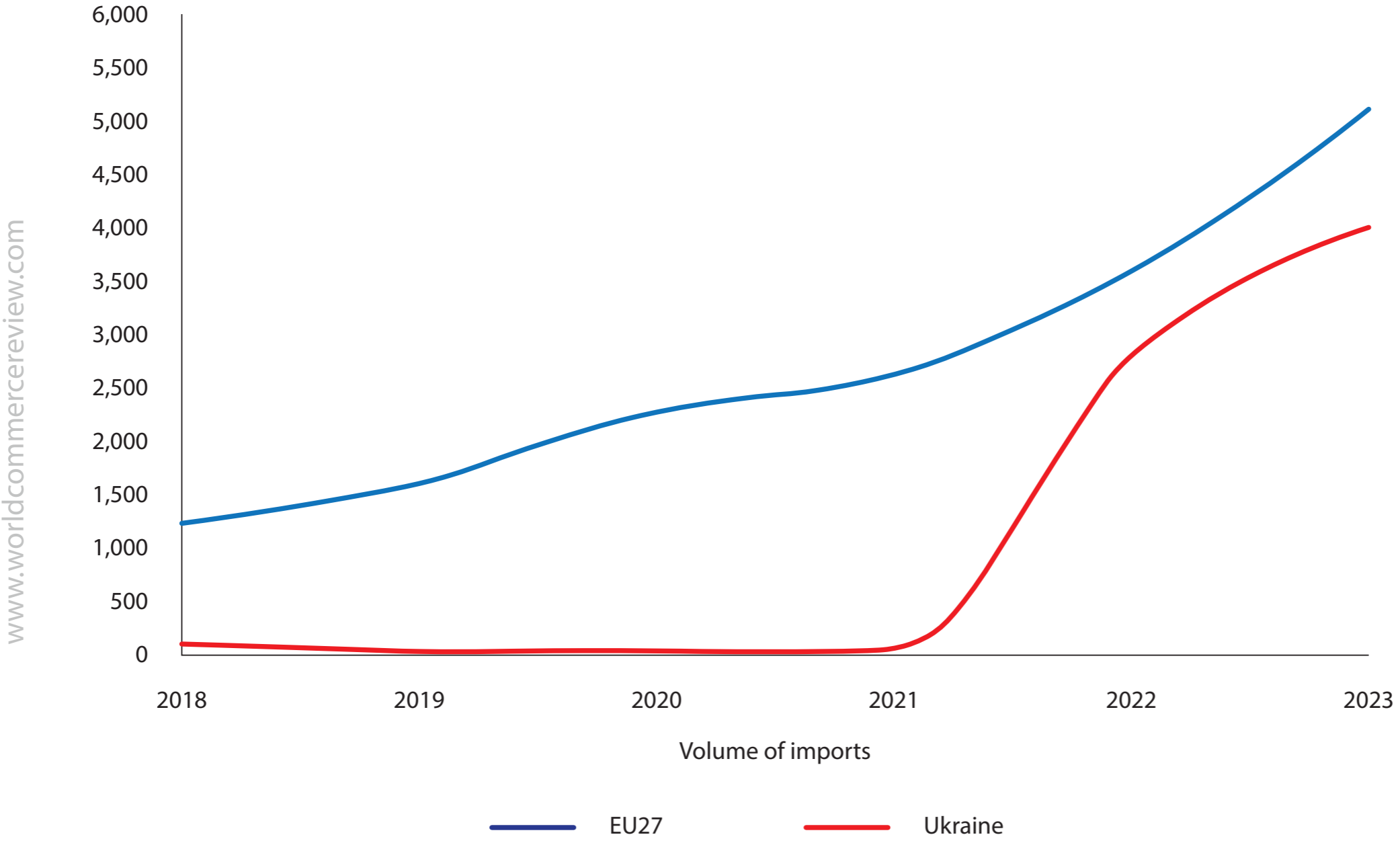
Newer reported NATO intelligence estimates suggest that Russia produces even 3 million shells per year, almost three times as much as the US and Europe combined⁷. In short, EDIS appears to downplay the immediate challenge of producing enough weapons and ammunition for Ukraine and the replenishing of European stocks.

Second, EDIS aims at a much higher domestic share of production to meet procurement needs without properly explaining why this is desirable. In fact, while 60 percent of European defence procurement was spent on non-EU military imports during 2006-16 (Fiott, 2019), that number jumped substantially to 78 percent from February 2022 to June 2023, according to EDIS (Commission and High Representative, 2024).

Figure 1 shows how weapons imports into the EU, Ukraine and, to the extent measurable, also in Russia, have increased. Clearly, imports have been necessary and their increase constitutes an important part of the military response. Under EDIS, the import share would be brought below 50 percent by 2030, but the plan does not argue why this is important.

Using global supplies to respond to the demand shock for defence products was clearly important for Europe. Also, Russia has increased its arms imports from Iran and North Korea substantially, though publicly available data on this is scarce and Figure 1 therefore likely underestimates Russia's actual imports.

Figure 1. Arms imports (trend indicator values*)



Note: * the graph shows SIPRI trend-indicator values (TIV), in millions, for arms imports. This variable measures the volume of international transfers of major arms (conventional weapons), as opposed to financial value, and is an indicator of transfers of military capability. For details.
Source: Bruegel based on SIPRI Arms Transfers Database.

The data shows exactly what basic economics would predict: a regional demand shock is met by increased imports. At the same time, the shock has led to an increase in production capacity, both domestically and internationally. Production capacity in Europe has been rising in the last two years, though too slowly to meet demand.

Given the continuously high demand for ammunition in Europe and the time it takes to increase production and replenish stocks, it is not clear whether the import share should fall, as EDIS proposes. To see the import share fall to below 50 percent by 2030 would be a massive change.

In practice, an expansion of domestic production could well be accompanied by an increase in the import share, given the extraordinary rate of consumption of military hardware as seen in the last two years.

Three arguments might be made for a lower import share:

- First, the aim could be to develop domestic industries by re-directing demand to domestic suppliers. This industrial policy approach has some merits in the medium to long term – indeed, arms production and development and the benefits of innovation from defence R&D depend on sufficient demand – and European domestic demand for EDTIB was rather low because of underinvestment in defence over decades.

Moreover, to benefit from cutting-edge technology, domestic production and demand is important in the security field. After all, the US imports relatively little from the EU and if it does, there are typically strong obligations on intellectual property.

For example under the US International Traffic in Arms Regulation, the US government can restrict exports of foreign-produced products that it buys or is a partner in, in order to restrict technology, data and knowledge transfer out of the US.

To build a strong and globally leading EU arms industry, domestic demand is thus important. Yet, the demand increase in the last two years and also the likely demand for the next few years appears to outpace domestic supply capacities.

Some of the demand for the next few years will also be for replenishment of current systems, rather than for development of new technologies. The industrial policy argument therefore appears more relevant for the medium to long terms than for the coming years.

- Second, the writers of EDIS might be concerned about a shift in US position in global arms supply. The US is currently by a wide margin the biggest exporter of weapons (Figure 2). European countries buy substantial amounts of their military hardware from US producers.

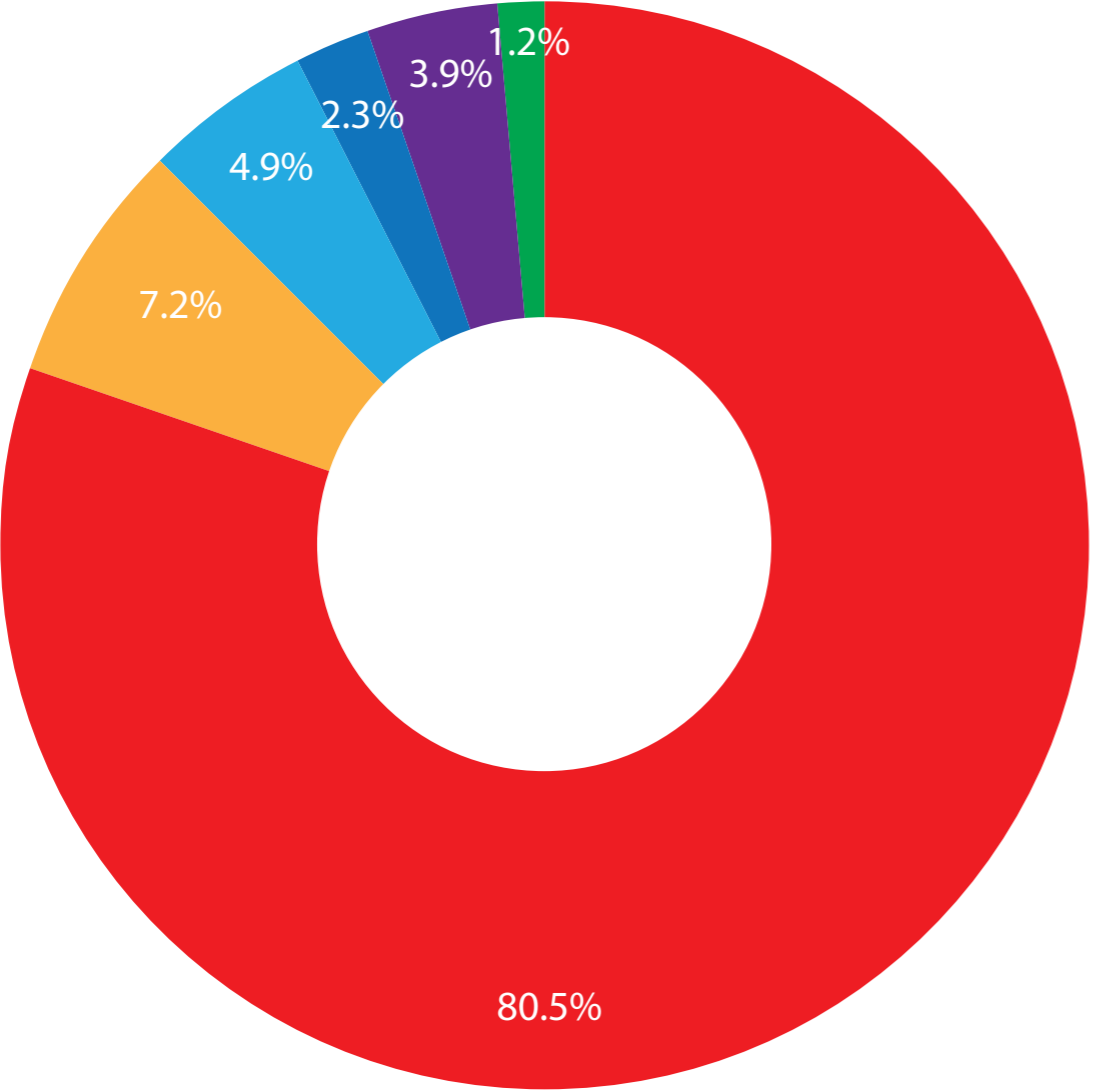
Conversely, however, the US imports relatively little military hardware; the US exports about 20 times as much as it imports. It is not clear why a US president would want to sell fewer weapons to Europe. Certainly, a transactional president like former President Trump will see arms deliveries to European customers as an important point strengthening the relation between the US and Europe.

Put differently, EDIS could make transatlantic relations more difficult. The real strategic dilemma will be about strengthening domestic capabilities versus buying American to manage a deteriorating transatlantic relationship.

- Third, high import shares might be considered a security risk: security of supply might be undermined by geopolitical tensions and the risk of more military conflicts in Asia. Some parts of the military production supply chain (such as smokeless powder, or propellant, production) depend on China.

Figure 2. Share of arms (value) transfer deliveries by supplier, 2019

www.worldcommercereview.com



- USA
- EU27
- Russia
- China
- Others
- UK

Source: Bruegel based on State Department (2021).

Yet, ensuring that supply chains are diversified does not necessarily translate into lower import shares. If the worry is China's role in the supply chain, then it needs to be addressed urgently, but is unlikely to change the import shares of weapons, where the US dominates global markets.

In short, while aiming for higher EU domestic production is warranted given the needs, doing so at the expense of foreign supply would be a severe military-strategic mistake in the short term, as demand far outstrips supply.

In the medium to long terms, EU policymakers need to assess whether strategic industrial policy in the defence sector should really be focused only on the EU or whether it should include partner countries such as the UK and Japan.

The guiding principle should be military strategic capacity, benefits of intellectual property and costs – rather than profits accruing to domestic industry. Indeed, the Ukraine war shows that military procurement and weapon purchases are expensive. Cost efficiency is an aspect that EDIS does not seem to consider, but that Ukraine knows is all too important given the high loss of materiel.

Comparative advantages and the benefits of international division of labour also exist in defence products. Cost differences for military spending (including in terms of procuring products) are substantial across the world and the US and EU are among the most expensive regions (Robertson, 2021). The cost of foreign procurement should therefore be taken into account while managing to avoid security risks.

Europe's defence strategy needs to carefully explore the trade-offs. A greater domestic share may make sense in products with substantial intellectual property benefits accruing to the economy as a whole. This suggests focussing the domestic share goal on specific high-tech military equipment, rather than mass products.

Money worries

Third, EDIS needs to be bolder on funding. The strategy is open about the current financial limitations of the EU – the proposed €1.5bn for industrial development is obviously not going to make a significant difference for a sector with a €70 billion turnover⁸.

However, the strategy shies away from pushing forward the debate on joint EU borrowing for military aid to Ukraine. While the regular and long-lasting need to increase defence spending is a structural shift at the end of the 30 years of peace dividend and should not be funded by deficits, the increase in defence purchases to support Ukraine is temporary and can therefore be funded by deficits.

Another aspect is private finance. EDIS cites evidence that SMEs in the defence sector have greater difficulties accessing finance than other SMEs. Yet, it also claims that no European corporate governance regulation requires investors to reduce their investments in the EDTIB – contrary to widely held beliefs.

Practitioners in banks suggest that providing funding to EDTIB does come with reputational costs. It is unclear, how the strategy would address the funding question.

Fourth, more reflection on how to operationalise EDIS is needed. While the plan calls for a reduction in the fragmentation of the EU defence market, it isn't clear how to get there. Previous initiatives have aimed to increase transparency in European defence markets and enable greater cross-border cooperation: the Defence Procurement Directive and the Intra-Community Transfers Directive from 2009⁹. Previous studies (for example Masson et al, 2015, and Ioannides, 2020) suggest that their effectiveness was limited at best.

Meanwhile, governments have continued to make indiscriminate use of EU Treaty exceptions allowed for arms production¹⁰ contrary to European Commission guidance (Marrone and Nones, 2020). In practical terms, a more integrated single market for defence products would help reduce costs with better use of comparative advantages and the ability to increase scale in production.

Yet, this requires trust among member states in the sensitive security area and the overcoming of vested interests entrenched in the nexus of national public procurement offices and defence companies. Joint funding for joint procurement might be a way of overcoming entrenched national resistance, but it would require unanimous endorsement at the highest level as well as substantially increased capacities for procurement, for example with a stronger European Defence Authority. It is thus up to EU leaders to really endorse and support EDIS.

On the whole, the EDIS proposal rightly sets the tone that Europe needs to progress with the development of its defence industry. It includes a number of positive and concrete proposals that could strengthen the sector. In the end, it will be up to member states to decide how they want to develop the sector.

Integrating European defence spending and thereby strengthening economies of scale in production would be a very worthwhile endeavour. The strategy opens the debate but the EU needs to be careful on becoming protectionist at time when it is critically dependent on foreign supplies. ■

Guntram B Wolff is a Senior Fellow at Bruegel

Endnotes

1. In EU terms, a joint communication from the European Commission and the EU High Representative for Foreign Affairs and Security Policy (Commission and High Representative, 2004).
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Broader border taxes in the EU

The EU needs new resources to fund its budget. Pascal Saint-Amans considers the problems of tax leakage and discusses how the EU can access new funds

Executive summary

There is widespread agreement on the need for new resources to fund the European Union's budget in order to meet increasing spending demands, not least repayment of debt incurred as part of the EU's post-pandemic economic recovery.

In particular it is seen as desirable that the EU should have 'own' resources, or reliable ongoing revenue streams. But there is little agreement on what new own resources could consist of.

Limited reform so far has led to the introduction of a levy paid by EU members depending on plastic packaging waste generated in their territory and not recycled. Meanwhile, the European Commission has proposed resources for the EU budget from emissions trading revenues, and from levies collected under the EU carbon border adjustment mechanism (CBAM). These proposals are pragmatic and move in the right direction, but do not go far enough.

The debate about own resources should focus on whether the EU will be able to build genuine own resources based on common tax policies. The EU suffers from 'tax leakage' in which profits are shifted from high-tax to low-tax EU countries, and from there onto no or low-tax non-EU jurisdictions, often without the application of withholding taxes.

It may not be too much of a stretch to compare this situation of tax leakage with the situation addressed by CBAM – a quasi-tax at the border. So far, an opportunity for what could be seen as a tax at the border of the internal market, aiming to protect the market from harmful competition, may have been missed.

Such a tax could reflect the undertaxed profit rule agreed as part of the international deal on the corporate minimum tax. Focusing on protecting the revenues of EU members by common tax borders could offer scope for new own resources.

In proposing new own resources, it was wise for the Commission not to go back to the idea of a European digital services tax

1 Introduction

While the budgets of its member countries are funded primarily by taxes approved by their parliaments, the funding of the European Union budget is much more complex, reflecting in part the ambiguous nature of the EU. The Treaty on the Functioning of the European Union provides that *“without prejudice to other revenue, the budget shall be financed wholly from own resources”* (Article 311).

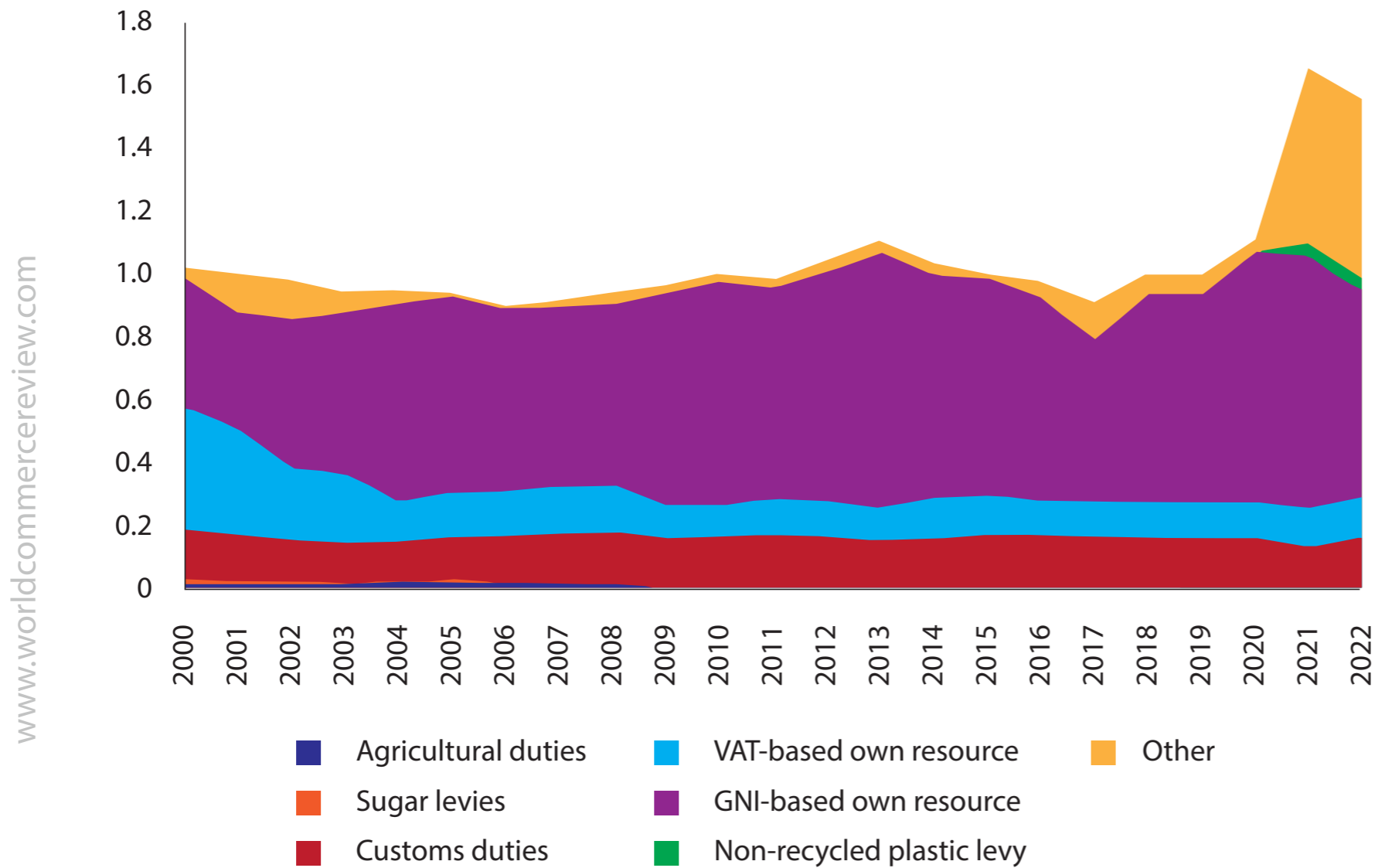
‘Own resources’ are ongoing streams of revenue mainly collected by member countries and passed onto the EU, with EU governments responsible for deciding by unanimity what these resources should be.

Consequently, revenues for the EU budget comprise a mixture of so-called ‘genuine’ own resources (levies that belong to the EU, such as custom duties) and other contributions from member countries, usually based on statistical aggregates, like value-added tax and gross national income (GNI)¹. The latter have significantly increased over time and represented almost three-quarters (72 percent) of the EU budget in 2020 (Figure 1; for pre-2000, see European Commission, 2021).

‘Genuine’ own resources now account for a small portion of the overall budget, which is a good illustration of why the EU needs a new approach to funding its activities. The adoption in December 2020 of the EU’s post-pandemic recovery programme NextGenerationEU (NGEU), allowing debt financing for the first time in European Union history, was an opportunity to reopen the debate on own resources.

Also in December 2020, an EU Inter-Institutional Agreement² on the EU budget provided that *“The repayment of the principal of such funds to be used for expenditure under the European Union Recovery Instrument and the related interest due will have to be financed by the general budget of the Union, including by sufficient proceeds from new own resources introduced after 2021.”*

Figure 1. Sources of financing for the EU budget (% of EU GNI)



Note: Borrowing to finance NextGenerationEU is included for 2021 and 2022, reflected in the large increase in the 'Other' category. This category also includes smaller sources of revenue such as fines, surplus from the previous year and revenue from EU policies.

Source: Bruegel based on [European Commission](#).

On 14 December 2020, the Council adopted a new own resource – on non-recycled plastic waste – for the first time in years, as if a new era was beginning. The European Commission then proposed, in December 2021, three new own resources:

1. Contributions from the EU emissions trading system (ETS);
2. Contributions from the carbon border adjustment mechanism (CBAM), which is designed to equalise the carbon cost of certain goods, whether produced inside the EU or imported;
3. A share of the revenue expected from the application of an Organisation for Economic Co-operation and Development agreement on the taxation of the residual profits of large multinational companies.

Though endorsed by the European Parliament, this proposal failed to trigger much discussion among EU countries. In June 2023³, the Commission tabled a revised proposal for ‘An adjusted package for the next generation of own resources’ (European Commission, 2023a).

As well as setting out new ideas for revenues, the proposal called on EU countries *“to accelerate the negotiations”*, with the objective of getting a unanimous decision by 1 July 2025 for the introduction of the new own resources in January 2026.

The question is what such new own resources should be, and particularly, whether it is possible to identify additional ‘genuine’ own resources with a European character – as opposed to statistically-based contributions such as VAT and GNI shares, which encourage thinking about the EU budget in terms of net balances received or contributed by member states (Fuest and Pisani-Ferry, 2020).

Before assessing the Commission's proposal, one can only note the lack of appetite among EU countries to move this debate forward. In February 2024, an agreement among EU countries on a midterm review of the EU's seven-year budget (the Multiannual Financial Framework, MFF) gave only a cursory mention to new own resources, with no update on the position of member states on the Commission's proposed package⁴.

The purpose of this paper is two-fold: first, to review the Commission's revised proposal in the context of the new financing challenges resulting from NGEU, and second to contribute some new ideas for 'genuine' own resources.

We find that the Commission has taken a pragmatic approach aimed at speeding up the negotiations, rather than revisiting the nature of the own resources. As to new 'own resources', we offer some recommendations that draw on recent progress on international taxation.

2 Background: the impact of NGEU on the EU budget and its financing

In adopting NGEU, EU countries called for a revision and expansion of the EU's own resources, to finance the borrowing costs for the approximately €421 billion in NGEU grants and to reduce reliance on the GNI-based own resource (Council, 2020).

They also agreed to raise the maximum potential amount of their annual contributions to the EU budget by an additional 0.6 percent of GNI, expressly for the purpose of servicing NGEU interest and debt.

For the first time in decades, a new resource based on non-recycled plastic waste, was adopted and entered into force in 2021⁵. However, this new resource is relatively small money compared to the debt service required for NGEU, contributing only about 3 percent of total EU revenues (European Commission, 2023b). Moreover, it is not an EU levy, but is based on contributions from members, reflecting their levels of non-recycled plastic packaging waste.

With the first repayments of NGEU borrowing due in 2028, a timeline was agreed to revisit this issue and find new resources. The December 2020 Inter-Institutional Agreement provided that *“the expenditure from the Union budget related to the repayment of the European Union Recovery Instrument should not lead to an undue reduction in programme expenditure or investment instruments [...] It is also desirable to mitigate the increases in the GNI-based own resources for the member states.”*

In absence of an agreement on additional own resources, the burden of financing this debt will fall directly on EU countries through the increased ceiling, leading to an even greater reliance on the GNI-based contribution to the EU budget. It could also translate into cuts in current programmes to make room for debt service.

The Commission has already had to propose changes to the current MFF to respond to the much higher-than-expected interest rates on EU borrowing costs (Figure 2)⁶. Hence, the debate on increasing own resources is critical to EU-funded policies.

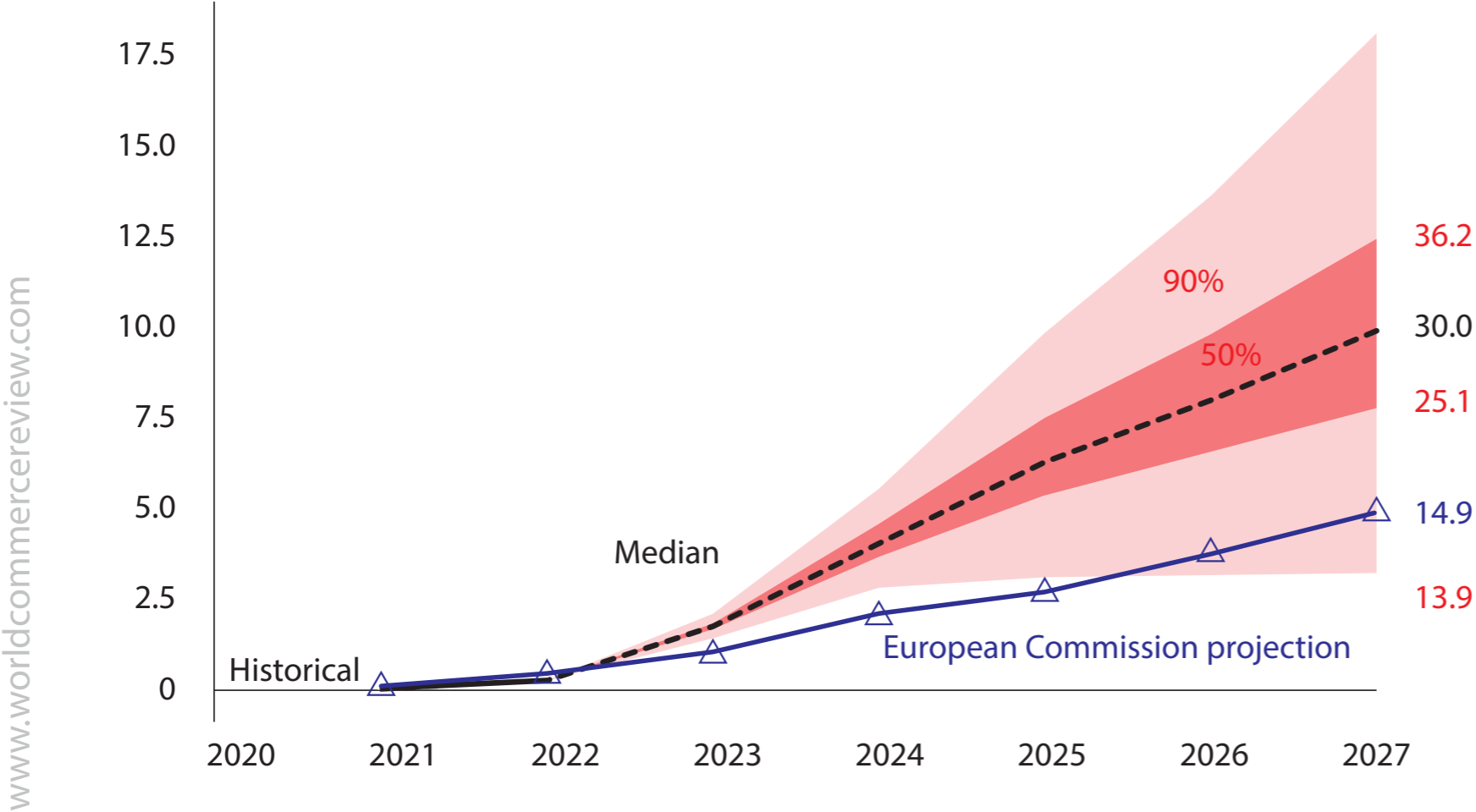
3 The European Commission proposals on own resources

3.1 The initial Commission proposal of December 2021

A first package of three new own resources was proposed by the European Commission in December 2021 (European Commission, 2021). This package introduced what could be considered ‘genuine’ own resources, with 25 percent of the emissions trading system (ETS) revenues and 75 percent of carbon border adjustment mechanism (CBAM) revenues going to the EU budget.

CBAM, which would levy a border toll (the Commission refrains from using the word ‘tax’) on certain carbon-intensive imports, entered into force in October 2023 and will become a definitive system in 2026. It will not be a significant revenue raiser.

Figure 2. Projected annual and total interest costs borne by the EU (in € billions)



Source: Claeys et al (2023a).

However, CBAM shares some similarities with custom duties as it is an EU levy at the point of entry of goods into Union territory. The ETS, meanwhile is clearly an EU-wide policy and, even though revenue can be tracked nationally, with most of the revenue allocated to each member state, the over-all approach remains an EU approach.

The Commission's proposal was therefore to rebalance own resources away from contributions from member states, whether based on VAT or GNI, and towards EU policy-based resources.

The third element of the December 2021 proposal related to the potential revenue generated by the agreement reached at the OECD on the reallocation of taxing rights among more than 140 countries to some of the profits of the world's largest and most profitable companies.

This was the culmination of an issue debated for more than a decade in the context of the idea that market jurisdictions were not receiving fair shares of revenues from the world's biggest digital companies. While the OECD negotiations on a global approach progressed slowly, some EU members, led by France, pushed for the introduction of an EU digital services tax (DST), which failed to obtain unanimity in 2019.

Some members introduced domestic DSTs from 2018 to 2021, while the OECD was still negotiating a multilateral solution within its Inclusive Framework on Base Erosion and Profit Shifting (bringing together 140+ countries⁷). In July 2020, EU countries agreed that, in the case of a failure of the OECD negotiations, a tax on digital companies would be agreed and would be an own resource.

In 2021, the Biden Administration rebooted the negotiations, which resulted in a two-pillar agreement at the OECD. Pillar 1 provides that a quarter of the rent (defined as the profit above a 10 percent profit margin on sales) earned

by the largest and most profitable multinationals (above €20 billion in revenues and 10 percent profitability) would be allocated to market countries (countries where the goods or services are sold) using a formula based on sales, whether or not the company is physically present in the country.

This is a significant departure from traditional transfer pricing rules and a move towards what economists call 'destination'. Interestingly, Pillar 1 would not be limited to tech companies, as was initially asked for by most European countries.

The Commission's December 2021 proposal proposed that 15 percent of the revenue accruing to EU countries from the Pillar 1 taxing rights reallocation would become an own resource.

The rationale behind that reallocation seemed to be more reflective of a political mood ('taxing the digital economy', or "*taxing the GAFA*" as the French finance minister repeated, in Council throughout 2018⁸, even though the scope of the OECD agreement had already broadened) than about building a genuine own resource, as could have been the case with the initially planned DST.

The proposed rate of 15 percent was hard to explain (at the global level, the reallocation of profit for taxing has been projected to be in the range of €150 billion).

Pillar 1, however, is subject to the development of a multilateral convention, which would require ratification by all signatories, including the United States, with a two-thirds Senate majority. The development of the multilateral convention is running late, with a new deadline in June 2024 for signing, and very uncertain prospects for ratification.

Interestingly, the Commission did not propose anything on own resources in relation to Pillar 2 of the OECD agreement, which provides for the establishment of a global minimum tax of 15 percent on the profits of multinationals with revenue above €750 million.

The expected additional tax revenues globally from this pillar are higher (in the range of €200 billion), with a complex three-tier mechanism that might be interesting from an EU own-resource perspective. We return to this issue in section 4.

3.2 The revised European Commission package

The Commission's June 2023 *"adjusted package for the next generation of own resources"* (European Commission, 2023a) added to the December 2021 plan in three ways: an increased slice of ETS revenues for the EU budget, a change to the date when some supplementary ETS revenues would start to flow into the budget, and a proposed new own resource related to corporate profits.

The EU budget share of ETS proceeds would increase from 25 percent to 30 percent, with no change related to CBAM. As the carbon price has increased, this would still leave more revenue to member states (€46 billion per year from 2028) while securing an annual €19 billion for the EU budget. CBAM, meanwhile, would be expected to generate €1.5 billion as of 2028 for the EU budget.

The June 2023 proposal formally maintains the 15 percent contribution deriving from the OECD deal, despite that deal's uncertain prospects of implementation.

In addition, the Commission proposed a new statistical-based resource on company profits. This was described as a *"national contribution calculated on the basis of statistics from national accounts under the European system of accounts"*, a proxy for company profits.

It would be less of a genuine own resource than CBAM and ETS contributions. It is also a pragmatic reflection of the fact that an EU harmonised tax on company profits is still a distant prospect.

The Commission estimates the base of corporate profits could reach €3 trillion and trigger revenues from €3 billion to €16 billion per year, with a call rate of 0.1 percent to 0.5 percent. The proposed resource has merit in that it would increase the absolute contribution of the largest and most advanced EU members (Germany, France), while having the largest effects in terms of GNI on smaller members that have benefitted from decades of corporate profit shifting (predominantly Ireland and Luxembourg; Figure 3).

While the ETS own resource could disproportionately penalise some Eastern European countries (because of their shares of electricity generation from fossil fuels), this new resource would balance the contribution back to the 'west'.

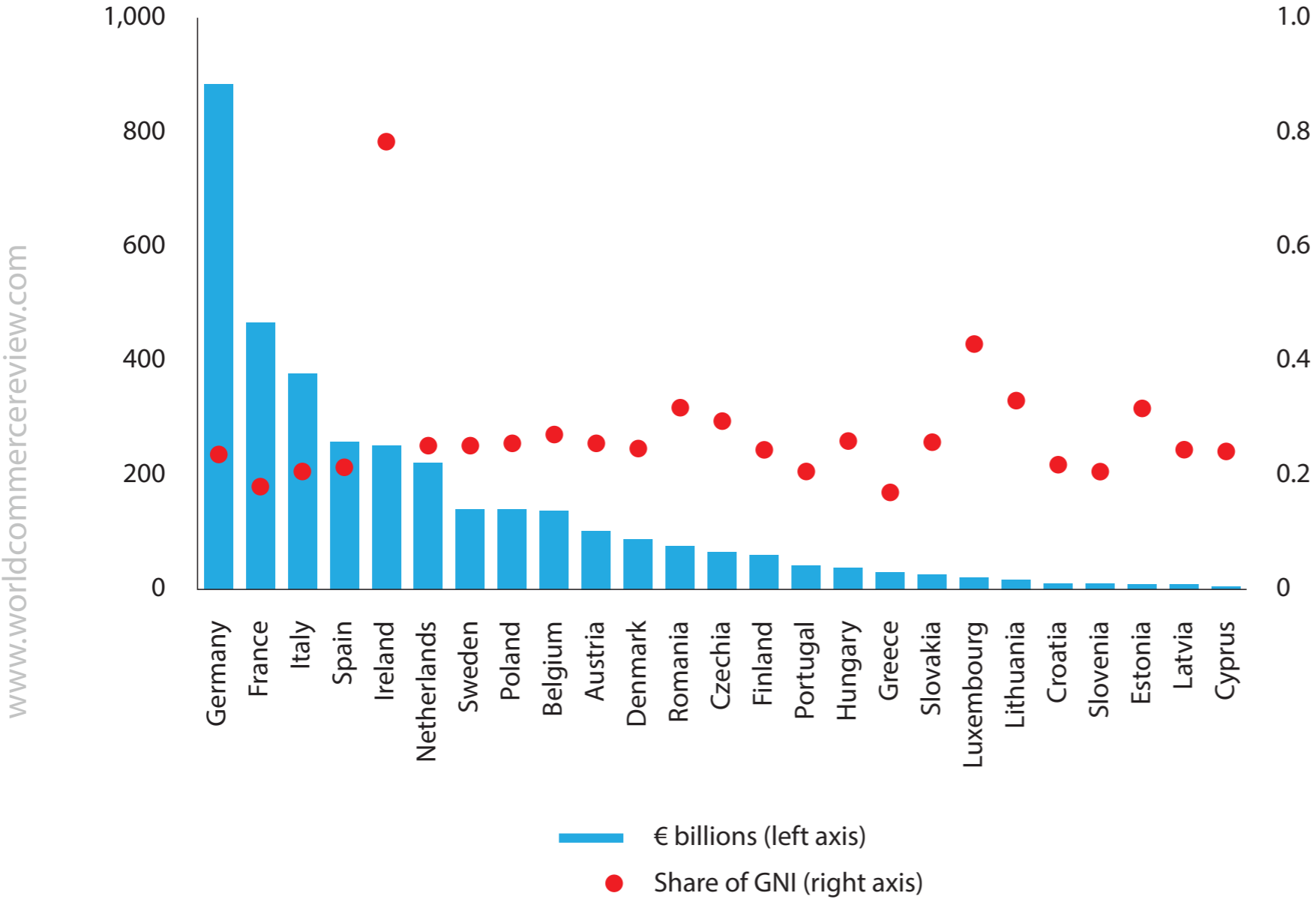
Expected amounts from the resource would be broadly comparable with €19 billion from ETS/CBAM. Finally, this resource is presented as temporary: it would be superseded by a share of taxes on corporate profits based on a common European tax base for corporations, which the European Commission is pushing for⁹.

The new statistical based resource on company profits is one of eight potential new own resources, most of them previously mentioned by the European Parliament¹⁰ and scanned by the Commission. This 'scanning' exercise against three selection criteria (revenue potential, simplicity in terms of compliance and administrative burden and fast mobilisation) was brief and could look like lip service to seven potential new own resources¹¹.

3.3 An evaluation of the Commission proposal

The Commission's revised proposal is pragmatic and moves in the right direction, but does not go far enough.

Figure 3. Gross operating surplus for corporations by country in € billions and as a share of GNI, 2021



Note: Gross operating surplus data is unavailable for Bulgaria and Malta.
 Source: Bruegel based on AMECO.

First, the Commission rightfully puts the emphasis on ETS revenue, increasing the allocation to the EU budget from 25 percent to 30 percent. As demonstrated by Fuest and Pisani-Ferry (2020), ETS revenues fit best the criteria for EU budget resources: *“carbon emissions do not primarily cause damage where they occur [...] additional emissions in a particular member state should be regarded as negative externalities in other member states [...] emission reduction objectives are set at the EU level.”* As the authors concluded, *“ETS allowances are not that different from custom duties”*, making them genuine own resources.

In addition, potentially big revenue can be derived from the ETS. Since the Commission’s December 2021 proposal, the EU carbon price has increased significantly. The price per tonne of CO₂ was until recently above €90 and likely to rise further in the mid-term, much higher than the price assumption of €55 for the period 2026-2030, as presented in the Commission’s legislative proposals related to the 2030 emissions reduction target of minus 55 percent compared to 1990.

Not only has the price increased, but the scope is also broadening, with a second ETS (ETS 2), which covers buildings and road transport, becoming operational in 2027. This dynamic allows the Commission to increase the EU share of ETS revenue from 25 percent to 30 percent, while leaving net increased revenue to member states at €46 billion per year from 2028.

The only downside to this approach may be of a political nature. Carbon pricing remains unpopular when directly borne by households, which is why the allocation of ETS 2 revenue was politically committed to social compensation and redistribution, rather than financing EU own resources.

Allocating part of ETS 2 to policies not directly related to greening the economy represents some political risk that the Commission and other EU institutions must be mindful of.

It will be important for the Commission to assure people that money collected from ETS 2 will be spent on climate objectives to alleviate the burden on households of the energy transition. It may make political sense to allocate the revenue to funding green policies and not divert it to other actions.

Second, the Commission is right to maintain its proposal to allocate 75 percent of CBAM revenues to own resources. Logically all resources arising from CBAM should in fact be allocated to the EU budget, but it was politically impossible for the Commission to not leave 25 percent of CBAM revenue to member states.

The Commission estimates that €1.5 billion from CBAM would accrue annually to the EU budget from 2028. This however would depend on the reaction from the main impacted EU partners. Some may adopt pricing policies, which would reduce CBAM revenues.

This would remain good news as the overall policy objective is about emission reductions and not revenue. In any case, CBAM is not where the bulk of revenue is. In the long run, when decarbonisation occurs, the fundamental question of finding a more stable revenue base will arise.

Third, the new statistical based resource on a proxy for corporate profits can be considered a smart move. It does not rely on the fast adoption of BEFIT, the latest Commission proposal on harmonising corporate income tax in the EU. Whatever the merits of BEFIT, the prospect of adoption is extremely low given how difficult the corporate income tax debate has been in Europe for decades.

More importantly, it is wise for the Commission not to go back to the idea of a European digital services tax (DST) as a substitute for the OECD deal, notwithstanding that, in July 2020, EU governments recommended the adoption of a European DST in case of OECD negotiation failure¹².

DSTs are taxes on transactions, which would be a proxy for EU countries to tax the profits of tech companies that leave very little profits on their territories because of aggressive tax planning that takes advantage of the inadequacy of existing international tax rules.

DSTs may seem like a good idea but to the extent that they are taxes on gross income, they would create double taxation, would be borne by consumers more than companies, and would likely generate trade tensions with the US.

For all these reasons, they are divisive and an EU DST is unlikely to garner the necessary unanimity to be adopted. By not mentioning this option, the Commission risks of being criticised by DST advocates (France, Italy, Spain), but spares itself a difficult and unpromising negotiation within the EU and tensions with the US.

While it adds little to the December 2021 proposal, the adjusted Commission proposal can be defended as a pragmatic move to facilitate a discussion of own resources with member states within a constrained calendar.

European elections are approaching, and a Multilateral Financial Framework proposal will have to be tabled by 2025, while the strategic agenda will have to be approved in 2024. With the first repayments of NGEU debt in 2028, EU institutions are running out of time.

4 EU taxation ideas worth of exploration

Beyond the urgent need to agree on a package to pay back NGEU, the debate about own resources should focus on whether the EU will be able to build genuine own resources based on common tax policies.

This is a more fundamental debate, raising the question of the nature of the European Union, and the debate between those seeing it as a confederation of sovereign states and those believing in its federal destiny.

For the time being, the Treaties reflect the situation in which tax remains at the core of national sovereignty and consent to tax, one of the fundamental human rights, a pure national exercise. The EU's unanimity rule on tax-related decisions is the basic translation of this stubborn reality, in which it is unlikely that the European Parliament would be considered as sufficiently legitimate to consent to tax.

The decision-making difficulty resulting from unanimity is increased by the interests of member countries not being aligned. Large EU countries and other high-tax countries have an interest in establishing a common tax base, which would limit tax leakage, for both individuals and companies, even at the cost of limiting their sovereignty.

On the contrary, to attract investment, most of the small members have to compensate for the sizes of their economies, or their peripheral geography, with lower taxes, in particular on mobile factors, including corporate profits or high-income earners. Diverging interests and unanimity are why the EU is in a stalemate situation.

It could be observed that previous EU enlargement to low-tax countries, such as Malta and Cyprus, without changing the decision-making rules, or asking these countries to change their laws before joining the Union, has just made the issue more intractable.

Overall, this means that the prospect of genuine own resources deriving from harmonised taxes remains remote, as unanimity is unlikely to be reached any time soon.

Moving from unanimity to qualified majority voting in tax decisions, which would require Treaty changes, can only reflect agreement on the nature of the institutions. This does not seem feasible, especially at a time of rising populism when national sovereignty is increasingly emphasised.

The current situation, within the EU, reflects a tax anomaly. To avoid leakage, national tax systems provide for tax borders: residents are taxed on their worldwide incomes and countries tax non-residents via withholding taxes on the incomes they derive from those countries.

In short, to avoid leakage, outbound payments (including dividends, interest, royalties and salaries) are subject to withholding taxes, while anti-abuse rules ensure that residents don't shift profits abroad. With globalisation, the robustness of these rules has been tested.

International efforts driven by the G20 and the OECD since 2008, to introduce a tax regulation of globalisation have aimed to restore these instruments in a coordinated manner, rather than a situation of pure protectionist unilateral tax measures.

The EU offers however a unique environment in which countries have lost their ability to apply taxes at the internal borders (within the internal market) following a set of EU Court of Justice decisions starting in the 1990s, which have found anti-abuse rules to be discriminatory.

As a result, high-tax countries lost their ability to limit the risk of profit shifting within the EU, where there are low-tax countries. Low-tax countries, as part of their 'tax offer' to foreign investors, removed their own external borders, when they had such measures.

For instance, they used to offer hybrid instruments and entities allowing companies to book profits generated in Europe in no-tax jurisdictions like Bermuda or Cayman Islands. They also usually offer no withholding taxes and no controlled foreign company regimes, providing tax planners with easy opportunities to shift profits outside the EU at a very low tax cost.

In short, the EU offers the possibility to do business in a high-tax country, shift the profits to an EU low-tax country, without any toll, and then shift the profits to a low- or no-tax country outside the EU, still without any toll.

In parallel with OECD progress on fighting base erosion and profit shifting (BEPS), the European Union has adopted an unprecedented number of tax directives, with various directives on administrative cooperation (which deal with exchange of information between tax authorities¹³) and two directives on anti-abuse rules.

These EU instruments implement rules adopted at the OECD by the Inclusive Framework. These directives bring more coherence to the system by increasing cooperation between tax authorities, and also by helping members to protect their tax base.

The most recent example is the directive translating into EU law the OECD Pillar 2 agreement establishing a global minimum tax, which EU countries should have implemented by the end of 2023 for entry into force in 2024 (Directive (EU) 2022/2523).

Preceded by global agreements, facilitating a worldwide level-playing field, these EU instruments show that EU members can overcome the constraints of unanimity. The EU has even been able to go beyond OECD efforts with a directive mandating publication of the country-by-country reports of multinationals (the issue was considered as non-tax and therefore was ruled with qualified majority).

Some of this recent progress could facilitate a move towards genuine EU own resources. For instance, the 15 percent global minimum tax could have offered an opportunity to mutualise some resources at the EU level as a genuine own resource.

The minimum tax rules provide for a complex three-tier mechanism to ensure that profits of multinationals, where initially taxed below an effective 15 percent in a jurisdiction, will finally be taxed at 15 percent.

First, the country of residence of the multinational will include any such low-taxed income in its tax base and will collect the additional tax (the Income Inclusion Rule, IIR).

If a country does not exercise that taxing right, countries where the company sells its goods or services will have a right to collect the additional tax (the difference between the effective tax rate in any jurisdiction where the company operates and the 15 percent effective rate), through what is known as an undertaxed profit rule (UTPR).

In addition to the IIR and the UTPR, countries where profits are taxed below 15 percent (either because it is a no-tax country, or because it offers a tax holiday, as can be the case in developing countries) can decide to take the difference themselves through a domestic minimum top-up tax (DMTT).

While the nature of the IIR and the DMTT seems quite national (a country will tax the profit of its own companies abroad), the nature of the UTPR is less domestic. Concretely, if a US or Chinese company (these two countries have not so far moved to implementing the minimum tax rules) operates on the European market with under-taxed profit in a low-tax jurisdiction (say the Cayman Islands or Bermuda where there is presently no corporate income tax for the time being), European countries will be entitled to collect the tax.

Though the collection of the tax will be national, the right to tax, which will depend on allocation rules, seems logically to belong to the internal market and the EU as a whole. It may not be too much of a stretch to compare this with the CBAM, a quasi-tax at the border.

In that sense, it is surprising that the European Commission did not examine this option, and favoured, in its initial proposal, a share of the allocation of taxing rights resulting from the other OECD Pillar (Pillar 1). It is true that the distribution of the global additional annual €150 billion to €190 billion of revenue remains unclear and that, in the long term, this revenue may dry up with tax competition being neutralised.

Still, an opportunity to push for what could be seen as a tax at the border of the internal market, aiming to protect the market from harmful competition, may have been missed.

In theory, one could argue that the DMTT is a way for low-tax countries to put an end to their aggressive tax offers, which allowed excess profit to be allocated to their territory, in a way that is not commensurate to activity deployed there.

The OECD estimates that a significant part of the additional revenue will be captured, at least in the short run, through DMTTs (Hugger *et al* 2024). This additional revenue could in theory be mutualised, even though, focussing on UTPR, as an external tax border, seems like a more realistic and practical way. It is also consistent with the fundamental structure of tax systems.

More broadly, exploring how other external tax borders of the EU could be restored could be a way to move towards genuine new own resources. For instance, in the area of personal income tax, establishing a common exit tax on EU countries' residents moving abroad to avoid paying capital gain taxes could serve the purpose of protecting EU countries' tax bases and developing a new own resource.

This could also be considered in the field of wealth taxation or inheritance duties, even though it must be recognised that the lack of harmonised approaches to these taxes by EU countries does not help define a common external policy.

Fundamentally, however, the idea of establishing external tax borders, to limit the risk of the delocalisation of the tax base (through exit taxes on unrealised capital gains for instance), could be further explored and may be a way to move forward the tax conversation in Europe.

Rather than harmonising taxes, which proves difficult, focusing on protecting the revenues of EU members by common borders may unleash some potential.

5 Conclusion

The European Commission's June 2023 adjusted proposal for own resources was motivated by the need to ensure a swift move towards adopting additional own resources to fund NGEU. The agreement to start debt financing the EU included an agreement to adopt new own resources.

Failure to move forward would jeopardise the ability of the EU to keep funding its existing projects, especially at a time when interest rate increases will make the repayment of both capital and interest heavier.

Time is running out, and the Commission proposed an adjusted mechanism that is pragmatic and rebalances the burden to make it more acceptable to Eastern European countries. It is a good move, even though no conversation has yet seriously taken place in the Council.

More importantly, the real debate on how to establish genuine own resources still needs to take place. A move to ETS and CBAM revenue to be mutualised is good and would give more weight to real own resources, aligned with EU policy objectives.

More needs to be done and recent international tax progress are a unique opportunity for the EU to explore how it could bring more consistency to tax systems in the EU while developing own resources. ■

Pascal Saint-Amans is a Non-Resident Fellow at Bruegel

Endnotes

1. The VAT and the GNI resources, based on statistical aggregates, are paid by members, which consider them to be national contributions, rather than resources owned by the EU.
2. In December 2020, the European Parliament, the Council and the Commission adopted an agreement on budgetary discipline, cooperation on budgetary matters, sound financial management and new own resources; see <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.LI.2020.433.01.0028.01.ENG&toc=OJ%3AL%3A2020%3A433I%3ATOC>.
3. This was brought forward: a decision on a second basket of own resources was initially envisaged for June 2024.
4. See European Council notice of 1 February 2024, '[Special European Council, 1 February 2024](#)'.
5. This own resource is proportional to the quantity of plastic packaging waste that is not recycled. EU countries contribute €0.80 per kilogramme of plastic packaging waste that is generated in their territory and not recycled.
6. See European Commission press release of 20 June 2023, '[EU budget: Commission proposes to reinforce long-term EU budget to face most urgent challenges](#)'.
7. See <https://www.oecd.org/tax/beps/about/>.
8. See for example Reuters, "'Enough excuses!' France's Le Maire grows impatient over GAFA tax', 18 October 2018. GAFA refers to Google, Amazon, Facebook and Apple.
9. The Business in Europe: Framework for Income Taxation (BEFIT) proposal, which aims to reboot negotiations on a common EU approach to taxation of corporate profits. See European Commission press release of 12 September 2023, '[Taxation: new proposals to simplify tax rules and reduce compliance costs for cross-border businesses](#)'.
10. See the European Parliament resolution of 10 May 2023, '[Own resources: A new start for EU finances. A new start for Europe](#)'.
11. The examined additional seven own resources were: (i) corporate tax BEFIT (no fast mobilisation planned), (ii) a financial transaction tax (same), (iii) an EU fair border mechanism aimed at fighting social dumping (modestly meeting the criteria), (iv) a tax on crypto-currencies (same), (v) a statistical resource based on gender pay gap (no fast mobilisation), (vi) a statistical resource on food waste, and (vii) a statistical resource based on e-waste, the latter two with

a good prospect of fast mobilisation but only adequate simplicity and revenue potential.

12. See <https://www.consilium.europa.eu/media/45109/210720-euco-final-conclusions-en.pdf>.

13. See https://taxation-customs.ec.europa.eu/taxation-1/tax-co-operation-and-control/administrative-co-operation-and-mutual-assistance/enhanced-administrative-cooperation-field-direct-taxation_en.

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