

ECONOMIC POLICY AND ITS IMPACT

The Role of Fiscal Policy Measures in Mitigating the Effects of the Covid-19 Crisis in Germany

Michael Christl, Silvia De Poli, Tine Hufkens, Andreas Peichl and Mattia Ricci

INSTITUTIONS ACROSS THE WORLD

Emigration and Elections: The Role of Emigrants' Missing Votes

Yvonne Giesing, Felicitas Schikora and Geisi Shima

BIG-DATA-BASED ECONOMIC INSIGHTS

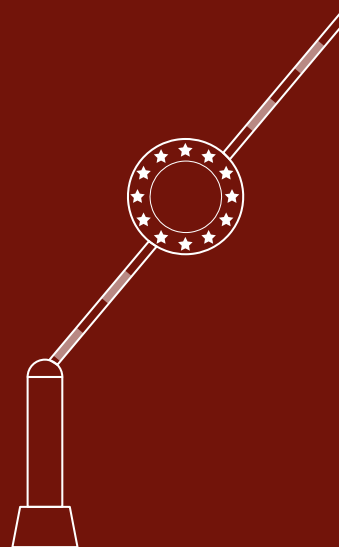
It's in the Data – Improved Market Power Mitigation in Electricity Markets

Jacqueline Adelowo and Moritz Bohland

POLICY DEBATE OF THE HOUR

Thirty Years of the European Single Market – Achievements and Future Challenges

Stefano Micossi, Giuseppe Bertola, Marek Dabrowski, Mehtap Akgüç and Philippe Pochet, Lucia Quaglia and Amy Verdun, Iulia Siedschlag, Andreas Baur and Lisandra Flach



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econPOL FORUM

In 1993, the European Single Market was created with the aim of enabling the free movement of goods, services and capital. It has created jobs and fostered growth and prosperity across the EU. Today, the European Single Market is the EU's driving force in addressing new challenges such as combating climate change, building a clean and secure energy supply, and supporting the innovation and digitalization of the European economy. The 30th anniversary of the European Single Market provides an opportunity to celebrate its successes and review what is yet to be achieved. Indeed, the global financial crisis (2008), the euro crisis (2010), Brexit, the Covid-19 crisis (2020/21), and the energy crisis caused by Russia's invasion of Ukraine (2022) have disrupted its positive evolution. This issue of EconPol Forum addresses important aspects of the role of the European Single Market in a new geopolitical era. Our authors also take a critical look at the main current challenges facing the EU.

In the future, the European Single Market will play a decisive role in setting a framework of reliable social standards and common goals. It will ensure Europe's resilience by helping companies adapt their supply chains to future risks and find new business opportunities. The concrete measures of social policy will be left to the member states.

In "Economic Policies and Their Impacts," our authors examine how fiscal policy measures mitigated the effects of the Covid-19 crisis in Germany. "Institutions Around the World" looks at what it means when the votes of emigrants are missing in sender country elections. Finally, in "Big-Data-Based Economic Insights," we show how the automated mitigation procedures can be improved to reduce market power abuse in electricity markets.



POLICY DEBATE OF THE HOUR

Thirty Years of the European Single Market – Achievements and Future Challenges

Introduction to the Issue on Thirty Years of the European Single Market – Achievements and Future Challenges	3
<i>Chang Woon Nam</i>	
The European Internal Market Thirty Years On	5
<i>Stefano Micossi</i>	
The Single Market and Common Policies in Uncommon Circumstances	9
<i>Giuseppe Bertola</i>	
The Single European Market: The Unfinished Business	14
<i>Marek Dabrowski</i>	
European Single Market 2.0: Striving for a More Social and Environmental Market Aligned with Open Strategic Autonomy	19
<i>Mehtap Akgüç and Philippe Pochet</i>	
The Increasing Geoeconomic Usage of the Single Market for Financial Services	23
<i>Lucia Quaglia and Amy Verdun</i>	
The Effects of the European Single Market on Attractiveness to Foreign Direct Investment	28
<i>Iulia Siedschlag</i>	
Protectionism on the Rise? New Challenges for EU Trade Policy	32
<i>Andreas Baur and Lisandra Flach</i>	

ECONOMIC POLICY AND ITS IMPACT

The Role of Fiscal Policy Measures in Mitigating the Effects of the Covid-19 Crisis in Germany	36
<i>Michael Christl, Silvia De Poli, Tine Hufkens, Andreas Peichl and Mattia Ricci</i>	

INSTITUTIONS ACROSS THE WORLD

Emigration and Elections: The Role of Emigrants' Missing Votes	41
<i>Yvonne Giesing, Felicitas Schikora and Geisi Shima</i>	

BIG-DATA-BASED ECONOMIC INSIGHTS

It's in the Data – Improved Market Power Mitigation in Electricity Markets	46
<i>Jacqueline Adelowo and Moritz Bohland</i>	

Introduction to the Issue on

Thirty Years of the European Single Market – Achievements and Future Challenges

Chang Woon Nam

Since its creation in 1993 and the subsequent accession of more EU member states, the Single Market has made people's and businesses' daily lives easier and promoted jobs, growth, and welfare throughout the EU. It is undoubtedly one of the EU's greatest achievements. Over the past decade, however, a series of crises have prevented the realization of the ambitious original goals, namely the creation of a Europe-wide, flourishing free market ensuring the free movement of goods and services, capital, and labor: the global financial crisis of 2008, the Great Recession of 2009, and the euro crisis of 2010. Ten years later, Brexit and the Covid-19 crisis shook Europe in 2020/21, followed by the energy crisis caused by Russia's invasion of Ukraine in 2022.

The 30th anniversary of the European Single Market provides an opportunity to systematically review what has been achieved and, more importantly, what remains to be done. Today, the Single Market continues to be the EU's driving force in addressing new challenges, which can help find solutions to tackle climate change, build a clean and secure energy supply, and support innovation and the digitalization of Europe's economy. The EU internal market will also continue to play a crucial role in guiding the substantive development of national welfare states on the basis of general social standards and common goals, leaving the means and ways of social policy to the member states. In this context, there have already been some approaches in the past, but increased integration through the opening of labor markets in the course of enlargement and the introduction of a common currency posed and continue to pose new challenges for the EU. Furthermore, the Single Market will remain the cornerstone of Europe's resilience, enabling it to emerge stronger from the Covid-19 pandemic and the current energy crisis by helping companies diversify their supply chains and seek new business opportunities.

This issue of EconPol Forum brings together several articles that address important aspects related to the future opportunities and role of the European Single Market in a new geopolitical era with a rapidly changing economic order. They also critically examine the main challenges currently facing the EU and propose common strategies and cooperation measures needed not only for the EU but also for its member

states to make the European Single Market more successful and resilient.

Stefano Micossi notes that while the European Single Market has made impressive progress over the past thirty years, the completion of the internal market for services has generally been rather slow. In addition, national policies have been insufficiently supportive of the goal of market integration, leading to the little progress made in market opening over the past decade, e.g., in areas such as natural gas and electricity. Furthermore, he argues that the European Single Market aims to create more growth and better employment prospects. Without such higher growth, as we have seen time and again in recent years, it is unlikely to gain sufficient support among European citizens, which in turn increases the risk that protectionism will return, and that the EU will enter a phase of regression.

According to *Giuseppe Bertola*, Europe must manage the decline of globalization without sacrificing growth, cohesion, or stability, but this will be a difficult task for two reasons. First, the crisis has given Europe new common policies, but it has also shifted policymakers' focus away from the well-regulated market interactions that can achieve these goals. The EU no longer lacks policy tools, but it must use them in the interest of the common good and help markets achieve the growth needed to satisfy citizens and service the debt accumulated during the crisis. Second, pursuing longterm goals with coherent policies is very difficult when policymakers face unprecedented challenges, and the electorate is unusually deeply divided.

Marek Dabrowski criticizes that the European Single Market project is not only far from being completed, but also in constant danger of falling apart. In addition to the further elimination of crossborder legal and administrative obstacles to the free movement of goods, services, capital, and people, some measures are needed to solve these problems: (1) existing rules should be regularly updated to keep pace with innovations and new challenges; (2) the enforcement powers of the European Commission and the European Court of Justice should be strengthened to minimize cases of non-compliance; (3) further liberalization of foreign trade and defense of global WTO rules against increasing protectionist pressures will strengthen the competitiveness of the European

Single Market; and (4) increasing the EU budget and strengthening EU competencies in accompanying social and economic policy areas such as direct taxation could help eliminate tax loopholes and hidden state aid and ensure a level playing field within the European Single Market.

For *Mehtap Akgüç* and *Philippe Pochet*, it is time to prepare an internal market 2.0 with an eco-social model that meets the new challenges. This project should revolve around three axes: the dual digital and green transitions, the environmental, and the social and the geopolitical (strategic autonomy) dimensions. The two authors are also optimistic about finding a new European social pact to support this project, involving employers interested in quality products, workers, and trade unions concerned with the quality of work, as well as all NGOs and citizens committed to a better quality of life.

According to *Lucia Quaglia* and *Amy Verdun*, the Single Market in financial services has increasingly been used for geoeconomic purposes, that range from incipient geoeconomic use to outward weaponization. During the post-2008 regulatory disputes between the EU and the US, the EU mostly acted as a market power and sought to externalize its internal rules. During the Brexit negotiations, the EU maintained unity with the UK to protect the integrity of the Single Market. In contrast, when sanctions were imposed on Russia, the Single Financial Market was used to constrain Russia for geopolitical reasons. The authors also note the possibility that the unity of the EU's geopolitical deployment of economic power could be threatened if the coalition of supportive EU member states falls

apart or if the EU deploys other financial instruments (e.g., the euro or the banking union) against Russian aggression.

Iulia Siedschlag demonstrates that the European Single Market has significantly increased the attractiveness of EU countries for foreign direct investment (FDI), which has boosted productivity and employment growth and provided host countries with additional benefits through knowledge spillovers on the productivity and trade performance of domestic firms. Removing regulatory barriers at the EU and member state levels in the area of services could strengthen the integration of business services in key manufacturing sectors and lead to more efficient integration of firms into European and global value chains.

The existence of serious supply chain risks in the EU is demonstrated not only by the coronavirus pandemic and the economic consequences of the Russian invasion of Ukraine, but also by the critical economic dependencies on China. In this context, *Andreas Baur* and *Lisandra Flach* suggest questioning the extent to which more protectionist EU policies would lead to a more resilient European economy. A key objective of European trade policy should be to identify external dependencies and systematically manage the associated economic and political risks. Moreover, diversification of trade relations seems essential for these purposes: the EU should continue to advocate strongly for WTO reform, as a strong multilateral trade regime is the best prerequisite for well-diversified external economic relations.

We hope you enjoy this Policy Debate of the Hour!

Stefano Micossi

The European Internal Market Thirty Years On

SETTING UP THE SINGLE EUROPEAN MARKET

The goal of economic integration constituted the principal focus of the 1957 Treaty of Rome, specifically the establishment of a common internal market, characterized by the freedom of movement of goods, services, and productive factors (labor and capital). In addition to serving as a free trade area and a customs union with a common external tariff, its distinguishing features were its aim of eliminating “technical” barriers arising from national rules for the protection of health, safety, and the environment, and, to a limited extent, of tax barriers as well.

Three features stand out in this regard (Craig 2003). First, integration entails not only the elimination of barriers (“negative” integration) but also the harmonization of legislation that provides protection standards for worthy goals of general interest (“positive” integration) applicable throughout the Single European Market (SEM). Second, the elimination and prevention of barriers also concerns behavior that may distort the level playing field in the SEM after the market opened, i.e., by means of public subsidies and protections granted in the domestic market to national players or anti-competitive actions by national players. These distortions are addressed through competition policy and in particular state aid policy – a policy unique to the European construction that directly constrains the member states. Third, market opening and liberalization do not preclude public intervention to help weaker economies withstand the impact of market opening. Common policies will normally be administered by the Commission – often under Council oversight through specialized Council committees.

Already in the early years of the Economic Community, the Court of Justice of the European Union (ECJ) emerged as a fundamental player in the integration process through its adjudication of cases and “preliminary” rulings on questions raised by national courts regarding the treaty’s interpretation. Its central role in the development of the SEM came to the fore with early decisions establishing the direct effect¹ and the supremacy over national legislation² of Community rules in areas of Community competence. These laid the foundation for landmark decisions such as *Reyners*,³ *Dassonville*,⁴ and *Cassis de Dijon*,⁵ with pa-

¹ Case 26/62, *Van Gend & Loos vs. Administratie der Belastingen* (1963).

² Case 6/64, *Costa vs. Enel* (1964).

³ Case 2/74, *Reyners vs. Belgian State* (1974) recognizing direct effect to freedom of establishment to what is now Article 47 of TFEU.

⁴ Case 8/74, *Procureur du Roi vs. Benoît and Gustave Dassonville* (1974).

⁵ Case 120/78, *Rewe-Zentrale AG vs. Bundesmonopolverwaltung für Branntwein* (1979) establishing the principle of mutual recognition of national rules and thus opening the way to the application of Article 34 TFEU to indistinctly applicable national rules.

- ### KEY MESSAGES
- **Over the past thirty years, the Single European Market (SEM) has made impressive progress, growing to cover the main economic activities – from manufactured goods to all categories of services, network utilities and public services, public procurement, and the recognition of professional qualifications, as well as the market for codified technology, which for long time was lagging behind. An ambitious initiative still underway is aiming to establish a fully-fledged online digital market**
 - **Implementation, however, has been wanting in a number of critical areas, notably affecting the realization of the internal market for services. Apparently, the financial crises have impoverished the working classes and seemingly drained the appetite for further market opening. As a result, the growth dividend of integration has been weaker than hoped for**
 - **National policies have been insufficiently supportive, if not downright hostile, toward the goal of market integration. As a result, the past ten years have seen little progress in market opening within the Union, even in areas where there would be low-hanging fruit to pick – e.g., the completion of the SEM for natural gas and electricity**
 - **A new twist in EU policies has come from NextGenEU, an ambitious and richly funded program (EUR 750 billion to be deployed by 2026) to foster the digital and green transition in the EU. Its emphasis, however, seems to fall on domestic investment rather than cross-border integration**
 - **Herein lies a paradox: while the SEM would in itself be a powerful engine for higher growth and better employment prospects, without higher growth it is not likely to find sufficient support among European citizens. This increases the risk that protectionism will return and that the Union will slide into a phase of regression**

ramount consequences for the subsequent evolution of legislation.

The White Paper included proposals for Treaty changes that would simplify and speed up the legislative process. In the ensuing months, an intergovernmental conference swiftly reached an agreement on those proposals, leading to the Single European Act (SEA) that was signed in February 1986. After ratification by member states, it entered into force on July 1, 1987. The SEA provided



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the definition of the SEM as an “area without frontiers in which the free movement of goods, persons, services, and capital is ensured” (now in Article 26(2) of the Treaty on the Functioning of the European Union, TFEU) and introduced (qualified) majority voting in the Council for SEM measures, together with a new cooperation procedure with the European Parliament, which later led to full co-decision under the Maastricht Treaty.

In network industries, the presence of increasing returns and, sometimes, natural monopoly market structures inevitably pushed SEM initiatives beyond market opening into the domain of regulation to ensure open access by competitors and a level playing field in the provision of services to final users. Network services were normally also services of general interest; Article 86 TEC⁶ (now 106 TFEU) provided the flexible framework required to ensure that free movement and competition rules would apply to these services without compromising their specific mission (European Commission 2000b). The tensions with some member states on the delicate balance between national social preferences and SEM rules led, with the Amsterdam and Nice Treaties, to a new provision – now Article 14 of the Treaty on the European Union – reaffirming the special role of services of general interest in the “shared values of the Union.”

Two main market opening initiatives in the new millennium concerned services in general and financial services specifically. The first one was prompted by a Commission Report on The State of the Internal Market for Services (European Commission 2002), which thoroughly described the sorry state of integration in this sector, the main legal barriers, and their impact on the economy – notably on small and medium-sized enterprises (SMEs) and consumers. The Services Directive,⁷ approved by Council and Parliament in 2006, provided an adequate legislative response but implementation has been lagging.

The second initiative is a decade-long attempt to integrate financial markets and set up a supranational regulatory structure for financial services, in response to repeated bouts of financial instability. Two reports – one prepared at the beginning of the 2000s under the chairmanship of Alexandre Lamfalussy (leading to the so-called Financial Services Action Plan, to be completed by 2005), the other by Jacques de Larosière at the end of the same decade – mapped out comprehensive interventions for removing remaining restrictions to securities markets and creating a new regulatory and governance system for financial services capable of avoiding a repeat of the dramatic financial crisis of 2008–09. This eventually led to the establishment of three Financial Services Authorities (ESMA, EBA, and EIOPA), which did not, however, gain direct supervisory powers over their activity domain. The euro area sovereign debt and banking crisis at the beginning of the 2010s convinced governments and regulators to

raise the stakes and go for a full Banking Union (with the transfer of banking supervision to the ECB and the creation of a new resolution procedure for banks in crisis, but not yet the cross-border deposit insurance) and Capital Markets Union (as yet at an early stage of design due to lack of political support).

Finally, in recent years, a comprehensive initiative has aimed to establish a Digital Single Market to allow the Union to exploit the full economic potential of ICT technologies (European Commission 2015a). The initiative covers a broad range of themes and activities, organized around three pillars: i) consumer and business access to online markets across the Union, ii) the legal and competitive environment, and iii) secure and trustworthy infrastructures.

AN INNOVATIVE REGULATORY MODEL

The SEM is built on an innovative regulatory model that aims to open the markets of member states to free movement while respecting, as much as possible, the diversity of national institutions and regulatory approaches. This approach was built on the landmark *Cassis de Dijon* decision by the ECJ (1978), which established the principle of mutual recognition of national rules. With one stroke, a myriad of technical barriers to free movement of goods were made illegal, thus relieving the European Commission of the task of seeking new legislation to bring them down. The decision was followed by other decisions refining the principle and extending its application to services and to persons seeking to move to another member state to reside and work.

The other building block was a more flexible legal basis provided by the SEA with new Article 100a TEEC (now Article 114 TFEU). Under this legal basis, harmonization was based on majority voting to achieve three main goals:

1. Substantive legislation to harmonize safety, health, and consumer protection legislation by laying down essential health and safety requirements, together with European standardization to offer an optional means of compliance, with harmonized requirements providing a presumption of conformity with EU law;
2. Procedurally oriented legislation to improve transparency of information on national technical standards and regulations and, later on, for public procurement;
3. Extension of mutual recognition by legislation, notably in the recognition of professional qualifications and the services directive.

The combination of the principle of mutual recognition with the three pillars of legislative activity mentioned above brings about a radical shift in economic philosophy: market opening is placed at the center of economic policies not only to foster growth, but also to improve

⁶ Treaty Establishing the European Community.

⁷ Directive 2006/123/EC.

the welfare of citizens (Barnard 2013; Weiler 1999). Majority voting means that governments may, sometimes, be obligated to accept substantial departures from their national policies and regulatory traditions. Common policies have been sensitive to member states' and citizens' concerns, and have developed their tools so as to strike an acceptable balance between the Community goal of free movement and national preferences in shaping protections.

THE ECONOMIC IMPACT OF THE SINGLE EUROPEAN MARKET

Over thirty years have elapsed since the enactment of the SEA, which brought about a jump in integration in the EU through the creation of the SEM. The creation of the euro added a powerful integration factor. And yet, the performance of the EU economy has been far from satisfactory, and the legacy of the economic and financial crises of the past decade still looms large.

Of course, the SEM policies cannot be held responsible for all that does not work in the European economy, nor could they claim all the credit for what has worked well in economic integration. The creation of the SEM was expected to bring about distinct economic benefits on a number of fronts, including cost reductions through the elimination of border tariffs and regulatory barriers; economies of scale, as companies restructured and merged to exploit the larger market size and optimize their cross-border productive structure and logistics; efficiency increases due to stiffer competition; increased labor and capital mobility for cross-border direct investment; and lower financial transaction costs as a result of the liberalization of capital flows and greater financial integration, possibly with an increased role played by capital markets in the direct financing of business (equity and bonds). The euro was expected to boost the beneficial effects on all these fronts, thanks to full price transparency.

While there has been progress on all these fronts, the attendant benefits seem to have been less than hoped for and, moreover, to have affected countries, regions, and activities quite diversely.

The economic literature generally agrees that the SEM has had a positive effect on its members' economies, although there is wide disagreement on quantification. Strong positive effects are evident in intra-EU trade in goods (Eichengreen and Boltho 2008), which between 1992 and 2012 increased from 12 to 22 percent of GDP. It has been estimated that since 1960, exports and imports within the Union have climbed to a level 8 percent higher than they would have without the SEM (Straathof et al. 2008). Fournier et al. (2015) estimated the overall impact of accession to the European Economic Area to be roughly a 60-percent increase in trade intensity. However, they also find that regulatory restrictions and regulatory heterogeneity still represent an important impediment to trade.

The numbers are much smaller for trade in services, which represents about 6 percent of Union GDP, but has shown steady increases in recent years with little adverse impact from the twin crises of the past decade. Business services have been one of the most dynamic components.

In the 2000s, intra-EU trade between EU15 countries remained unchanged at around 20 percent of GDP, while strong increases were observed for the incoming EU13 countries. In recent years, the latter countries thus account for much of the trade creation in the SEM (European Commission 2015b).

The degree of integration is normally gauged by the observed degree of convergence of prices and productivity. The aggregate price level convergence slowly improved through the 1990s and the 2000s until the financial crisis; afterward, it stabilized in the euro area and even went into reverse in the EU28, probably reflecting exchange rate adjustments between the euro and non-euro currencies. However, price dispersion remains well above that observed for the United States and Canada – confirming once again that integration in the SEM is still far from fulfilling its potential.

Productivity, on the other hand, did not converge at all, and in fact showed growing divergences within industries and across countries, especially within the euro area. The rise in the relative price of manufactured products in higher-inflation countries encouraged a shift in the allocation of resources toward services and construction, typically characterized by lower productivity.

The Cecchini Report (Cecchini et al. 1988) held the promise that the removal of border controls, the liberalization of public procurement and financial services, and the supply effects deriving from market responses to the new competitive environment would raise EU12 GDP by between 4.25 and 6.5 percent and create two million jobs. Most subsequent analyses have concluded that the actual outcome was considerably smaller, around 2 percent (Vetter 2013; Ilzkovitz et al. 2007), but higher estimates have not been absent. Most notably, Eichengreen and Boltho (2008) gauged that European integration has added at least 5 percent of extra GDP growth, although they recognize that much trade opening would probably have happened anyway.

POLICY CONCLUSIONS

Over the past thirty years, the SEM has made impressive progress, growing to cover the main economic activities – from manufactured goods to all categories of services, network utilities and public services, public procurement, and the recognition of professional qualifications, as well as the market for codified technology, which for long time was lagging behind. An ambitious initiative still underway is aiming to establish a fully-fledged online digital market.

Implementation, however, has been wanting in a number of critical areas, notably affecting the realiza-

tion of the internal market for services. Globalization, technological change, and the financial crises have impoverished the working classes and seemingly drained the appetite for further market opening. All too often, national policies have been insufficiently supportive, if not downright hostile, toward the goal of market integration. As a result, the past ten years have seen little progress in market opening within the Union, even in areas where there would be low-hanging fruit to pick – e.g., the completion of the SEM for natural gas and electricity.

A new twist in EU policies has come from NextGenEU, an ambitious and richly funded program (EUR 750 billion to be deployed by 2026) to foster the digital and green transition in the EU. Its emphasis, however, seems to fall on domestic investment rather than cross-border integration.

Herein lies a paradox: while the SEM would in itself be a powerful engine for higher growth and better employment prospects, without higher growth it is not likely to find sufficient support among European citizens. This increases the risk that protectionism will return and that the Union will slide into a phase of regression.

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Giuseppe Bertola

The Single Market and Common Policies in Uncommon Circumstances

In the midst of the turmoil spurred by the aftermath of the Covid-19 pandemic, the Russian invasion of Ukraine, and worries about climate change, January 1, 2023, marked the 30th anniversary of the elimination of border controls within a large economically integrated area.

The anniversary of this key step in the implementation of the European Single Market program is an opportunity to look back as well as forward – to take a step back from the confusion of the current, disconcerting situation and to discuss more generally what the Single Market was supposed to do, what actually happened, and how policy may help it function. To organize these thoughts, the developments over the intervening 20 years will be compared to the analysis and recommendations of a voluminous and widely cited report published on the occasion of the Single Market's 10th anniversary by request of European Commission President Romano Prodi (Sapir et al. 2004, accessibly summarized in Sapir Group 2005).

LOOKING FORWARD FROM THE PAST

That report, issued in July 2003, argued that a well-regulated European market is crucial for achieving the European Union's objectives of cohesion, stability, and especially growth, since improvements in living standards are key to preventing a political backlash against economic integration.

The voluntary exchange of goods, services, and production factors benefit all parties involved. It lets the market deliver efficiency and economic welfare. Europe's market integration since the 1950s was also meant to foster ties between nation states so as to prevent continental wars of the kind that broke out twice in a century since the Treaty of Westphalia.

The market is in fact a social and political construct that relies on communication and trust as well as on governments that view it as a common good for all and do not try to distort it for the benefit of some. Governments must provide a public infrastructure consisting not only of physical roads and marketplaces but also of product standards, legal enforcement, and payment systems, and they must implement policies that control the instability and inequality that an imperfect market inevitably generates.

This is unusually difficult in the European Union (EU), with its many national and supranational public decision-makers and their different objectives and time horizons. The most obvious aspects of this problem are addressed by the EU's policy framework,

which assigns most fiscal policy choices to member states but prohibits state aid that, by tilting the playing field, would prevent the market from delivering growth efficiently.

The Sapir report proceeded to outline whether and how the EU policy framework could deliver growth. The need to do so was then evident as per capita GDP had stagnated since the mid-1970s at about 70 percent of that of the United States, an integrated economy comparable in size and development level. This stagnation followed 30 years of gloriously fast growth in Europe after World War II and had not ended upon implementation of the Single Market. It was reasonable to wonder whether this was the result of a failure to adapt the national welfare and labor market policies implemented in the 1970s to new circumstances, where growth would have to derive from innovation and market dynamics rather than from the adoption of techniques developed in the United States. There was a hope that stagnation in times of economic integration could end in the aftermath of the then-recent adoption of the euro by many member countries, addressing obvious and long-standing “one market, many monies” coherency issues (Padoa-Schioppa et al. 1987).

KEY MESSAGES

- **Markets can deliver growth but need help from government provision of infrastructure, regulation, stabilization, and redistribution**
- **In the 20 years since the 10th anniversary of the Single Market, growth in Europe has remained relatively slow**
- **Two deep crises revealed underlying problems and prompted the introduction of new instruments in the European policy framework**
- **The market currently faces dramatic challenges from war and international tensions and suffers from the effects of subsidy-and-debt policies that persist after the Covid-19 pandemic**
- **Deep divisions across and within member countries and between Europe and the rest of the world unfortunately hamper efforts to coherently configure European policies**



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However, it would have been naive to expect this to happen automatically.

The Sapir report argued that to facilitate adoption and implementation of growth-enhancing policies the EU policymaking framework should itself be reformed. Its suggestions were many and detailed, but the main recommendation was to refocus the EU budget on common challenges and implement an effective growth-oriented policy package, conditioning disbursement of EU funds on a suitable administrative capacity and the fulfilment of specific objectives.

GROWTH?

Before comparing those recommendations to what the member countries and the EU chose to do in the two decades that followed, it will be interesting to see whether their motivation is still valid by assessing the growth performance of the EU against the same American yardstick. Since 2003, thirteen countries joined the EU and one left it (the United Kingdom in 2020). What is interesting is the EU’s growth rate at constant membership, computed as the weighted average of growth rates between year t-1 and t of countries that are in the EU in year t. No such adjustment is necessary for the US, which did not experience any accession or secession during this period.

Figure 1 plots annual growth rates of real GDP in the EU against those in the US. Most observations are above the 45° line, indicating that – much more often than not – growth was faster in the US than in the EU. Figure 2 shows that from 2003 to 2022, the EU’s constant-membership growth cumulates to about 30 percent, while the US GDP grew by 44 percent. Much of this is due to population growth, which in the US is always faster than in its EU constant-membership counterpart, and in the last 20 years has cumulated to about 10 percent for demographic reasons and because of net immigration (it is worth noting that the Covid-19 pandemic caused a small population decline in the EU but not in the US, where many more deaths were quickly made up for by immigration). But per capita GDP relative to that of the US declined to about 4 percentage points below the 70 percent plateau it had reached in the 1970s. The growth deficit that motivated the Sapir report’s analysis and recommendations not only persisted but deepened.

UPS AND DOWNS

It is sobering to consider how much has happened in the past two or three decades. In 1993, we did not have the internet or cell phones. In 2003, we had cell phones and knew EU enlargement to the East was coming soon, but neither smartphones nor social media had arrived yet, and we certainly did not expect that unprecedented crises would hit Europe every ten years or so.

Those events interacted with the Single Market and with the more or less common policies that can help it function. Europe did well with cell phones, aiming since 1987 to reach a common standard: the GSM cellular network introduced in Finland in December 1991 strengthened competition on an integrated and level playing field and was adopted worldwide (Pelkmans 2001). The Single Market has also helped European citizens in many other ways, but here it is instructive to discuss briefly how the EU policy framework dealt with the two deep crises, visible as sharp spikes in Figure 1.

THE EU AND THE GREAT RECESSION

The Great Recession of 2008–09, when GDP fell by about 3 percent in the US and by more than 4 percent in the EU, highlighted problematic aspects of the EU policymaking framework and brought some changes to it. A demand-driven recession called for classic Keynesian macroeconomic stabilization policies. The US was able to deploy a market-wide federal fiscal policy against the Great Recession in the US and enjoyed a quicker recovery, while the EU experienced national public debt crises that prolonged the slump. The crisis could have been worse if the EU economy had not been as integrated as it was in 2008: even though free capital mobility sowed the seeds of instability and of a prolonged financial crisis during and after the Great Recession, reversible exchange rates

Figure 1 Annual Real GDP Growth Rates in the EU Compared to Those in the US

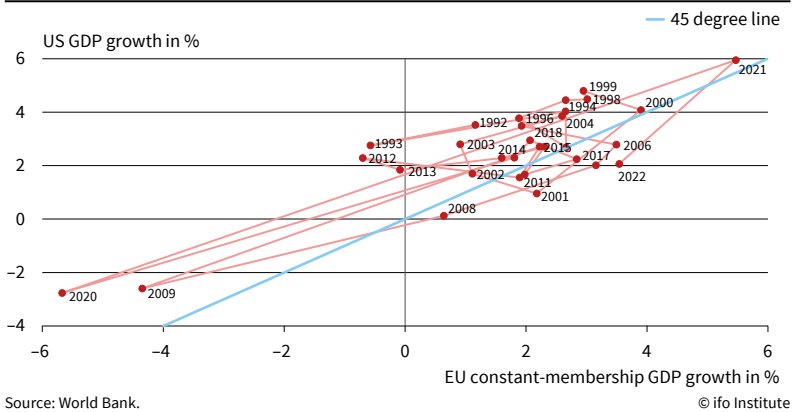
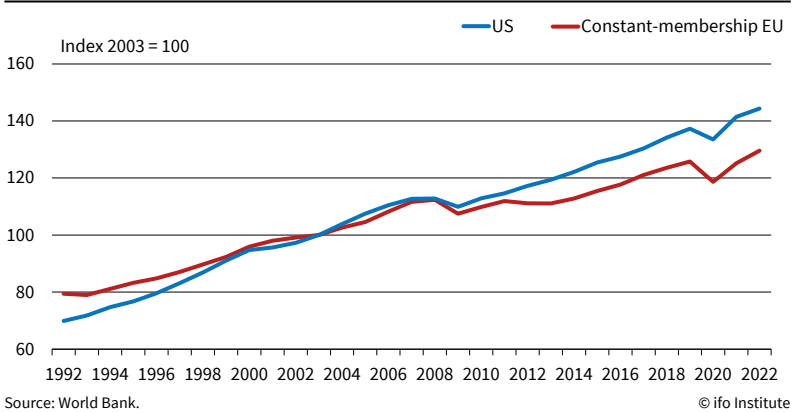


Figure 2 Cumulative Real GDP Growth from Growth Rates in Figure 1



would have triggered much more dramatic instability. Things could have been better, however, and the experience led to the creation of the European Stability Mechanism and stimulated innovative ideas, at least on paper, such as the “Convergence and Competitiveness Instrument” for supranational funding of reforms proposed by the European Commission (2012).

PANDEMIC EVOLUTION OF THE EU

The EU policy framework also evolved very significantly during the Covid-19 pandemic recession of 2020, which triggered even deeper falls of GDP and called for a different type of policy responses, aimed at redistributing the negative aggregate shock rather than at sustaining an aggregate demand that supply restricted by lockdowns could not satisfy. Financial markets and banks could not directly channel the savings of individuals who continued to work but did not have opportunities to spend to support consumption by individuals who could not perform in-person services. Fiscal and monetary policies were necessary to mediate that resource transfer: government deficits subsidized consumption by out-of-work individuals with the savings of those who purchased public debt, or accumulated deposits that in the banking system’s balance sheet was the counterpart of public debt.

Crises make the pros and cons of policies much clearer, and the European policymaking framework adapted quickly to introduce a set of new common policy instruments intended to help rather than constrain the member countries’ policies. The Support to mitigate Unemployment Risks in an Emergency (SURE) low-interest EU loans that fund member countries’ schemes aimed at preserving employment, and the vast Next Generation EU (NGEU) program for recovery, resilience, and climate and digital transition expenditures are broadly consistent with key recommendations of the Sapir report.

In some respects, however, they are less germane to those recommendations. One is that EU spending relies on off-budget borrowed funds (Begg 2023). Another is that they tend to shape economic choice with off-market mechanisms. Many markets of course ceased to function during the pandemic, which however damaged the Single Market also through the Temporary Framework’s suspension of state aid rules. The damage is perhaps more permanent because policymakers and electorates became addicted to nonstandard policies that were appropriate in the emergency situation, but persisted in the aftermath of the pandemic. Peculiar fiscal and monetary policies provided useful redistribution and relief in exceptional pandemic circumstances, and it is tempting to continue using them when, as is normal, guaranteed minimum incomes reduce labor supply, and monetary expansion cannot generate demand for underutilized production factors without increasing

prices. Deficits feed public debt, which has to pay high interest rates when unexpected inflation has eroded its real value and the wealth of individuals who saved during the pandemic. Short-time wage subsidies like those funded by SURE fostered stability during the pandemic, but hamper reallocation and adjustment in less dramatic circumstances, and the debt-financed subsidies deployed to pursue worthy NGEU goals reduce the growth of market incomes.

AFTER THE PANDEMIC, WAR

An unfortunate victim of the latest crisis is one of the cornerstones of Europe’s post-war project: the idea that market connections could replace royal marriages as the way to integrate diverse economies and complicated decision-making processes without conquest by blood and steel. Russia was well integrated into world markets, but was not deterred by the threat of sanctions, and feared that its trade with Ukraine would decrease if it had to cross the enlarged EU’s borders. Economic integration can at most move the boundaries of war to those of well-integrated economies rather than of nations, and war can be prevented only by the expectation that trade will continue (Copeland 1996).

Trust in markets prevents war, but loss of faith in markets triggers both military and economic war. In 2023, Europe and the world find themselves in that unfortunate equilibrium and an unusually turbulent and precarious situation. Interest rates are no longer near zero, and economies face real resource constraints. To cool the environment of future generations and produce missiles that replace those sent to Ukraine, citizens must consume less now, as they will if inflation erodes the purchasing power of their wages. The real cost of transitions and military buildup would be large if funded by efficient taxation of free market exchanges. It must be huge when the market resembles a battlefield more than a playing field, and dirigiste and protectionist inefficiency reduce the welfare of the average citizen, if not that of subsidy recipients. War is highly profitable for a select few, and the same is true of industrial policy.

POLICY CONCLUSION

Looking ahead from 2003, the key policy issue for Europe was “how to enjoy the benefits of [further] globalization while continuing to mitigate its costs” (Sapir et al. 2004). Looking ahead from 2023, Europe will need to manage the decline of globalization without forsaking growth, cohesion, and stability.

It will not be easy – for two related reasons. One is that the crisis brought new common policies to Europe, but also shifted policymakers’ focus away from the well-regulated market interactions that can deliver those objectives. The EU no longer lacks policy instruments, but still needs to use them in pursuit of

the common good, helping markets deliver the growth needed to satisfy citizens and service the debt accumulated in the crisis. The other is that pursuing long-term objectives with coherent policies is very difficult when policymakers face unprecedented challenges and electorates feature unusually deep divisions.

This is of course a global problem. The US is at least as deeply divided as most European countries between the educated and uneducated, the residents of globalized cities and of rural provinces, and more or less recent immigrants. Culture and economic circumstances vary at least as much within as across the sharp policy borders of countries, and within as well as across countries, debtors and creditors have different opinions about inflation and interest rates. The problem is particularly important and difficult in a European Union that has grown large, heterogeneous, and disunited in many respects. Russian aggression could bring Europeans together and make them realize that they should share markets and policies for the common good, as the Swiss did when the 20th century's World Wars prompted the introduction of federal income taxes to fund military expenditures (Bertola et al. 2014). Unfortunately, however, there is much to disagree about when the market and its flanking policies are viewed not as a common good, but as a weapon. Disagreements about economic policy abound along political lines that are to some extent reflected in European Parliament coalitions of national parties with relatively homogeneous green policy preferences and market friendliness and are difficult to reconcile in the Council, where governments represent unstable majorities and adopt shortsighted perspectives on single issues that typically require unanimous decisions.

Across and within countries, policy choices are not supposed to be easy, but must be clear and farsighted. Populist politicians like to put their nations first, to take without giving, and blame the market and European policies for all country-specific misfortunes. Of course, the integration of markets and policies cannot always benefit all countries and individuals at all times. However, it should be viewed as a feature of the European politico-economic landscape that is permanent, and as the only possible way to sustain growth in a long run where ups and down balance each other out over time. In recent decades, countries in the EU took turns to be sick, as did the states within the US. For example, Italy is commonly pitied for its dismal growth since 1993, which can be explained by the failure to adjust its specialization when the Single Market and globalization deprived portions of its manufacturing sector of their Northern European customers who, could procure textiles and shoes from the Far East more cheaply (Andersen et al. 2019), by accumulation of public debt that had bad implications during and after the Great Recession, and marginally by an early and devastating Covid-19 epidemic followed by a robust recovery spurred by tourism and NGEU investments. And Germany in 2003 was still struggling

with its unification and beginning to reform labor and welfare policies, a natural politico-economic reaction to capital outflows toward the EU periphery triggered by the Single Market (Bertola 2016). At the time, German policy problems seemed dire indeed (Sinn 2007), but somewhat ironically, Germany was saved by the Great Recession, when production declined sharply but only briefly as temporary layoffs limited employment losses, then recovered quickly as growth resumed in emerging countries and the euro was weak against the US dollar and the Japanese yen. Loss of trade with Russia and China now deprives Germany of what boosted its economy after the Great Recession.

The Single Market is still incomplete, especially in the service sector. Some of the NGEU national investment and reform programs aim to improve the physical and legal infrastructure that benefits all market participants. But much current policy deploys dirigiste and protectionist subsidies, which are prone to lobbying efforts and can hamper growth by obstructing market-driven adjustment within and across national borders. Unfortunately, they are an equilibrium choice for all countries in the absence of such supranational coordination as the prohibition of state aid in the Single Market. Europe as a whole feels a need to respond to US and Chinese moves, and EU member countries are more or less inclined to do so at the national level: history makes Germany less comfortable with the current dirigiste and protectionist policy climate than France, which lets its government spend over 60 percent of GDP and justifiably views itself as an international nuclear power.

Agreement and compromises are elusive but needed. To try and achieve them it is essential to remember that the market brought us cell phones from Finland, and smartphones designed in the US and produced in Asia. If the West denies Dutch advanced chipmaking machinery to China, which swiftly embargoes exports of chipmaking materials, those chips cannot be produced anywhere. If voters and policymakers realize that it is impossible to produce everything in a small country or region, with suitable focus and some luck it may be possible to restore the fragile trust that keeps international markets open, and perhaps even treat migration as an opportunity rather than a threat. Otherwise, nothing will prevent the return of earlier eras of isolation, cold or overt war, inflation, and slow growth.

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Marek Dabrowski

European Single Market: The Unfinished Business

KEY MESSAGES

- **Despite almost four decades of building the Single European Market (SEM), its architecture remains incomplete, especially in the service sector**
- **For an economic analysis of the SEM, it is necessary to go beyond technical regulations related to the four freedoms and individual sectors. Equally important is the functioning of a common currency, open internal borders, external trade policies, competition policy, and others**
- **Historically the SEM expanded from ten founding members in 1985 to 27 EU member states (MS) currently and several associated and partial members. Brexit was a blow to the idea of a common market**
- **In the 2010s and 2020s, attempts to reverse the SEM rules became more frequent, partly due to unexpected shocks such as the refugee crises, the Covid-19 pandemic, and the energy crisis caused by the Russian aggression against Ukraine**
- **Several policy measures are necessary to complete the SEM project and avoid reversals, including completing and updating sectoral legislation, strengthening enforcement prerogatives of the European Commission and the Court of Justice of the EU, maintaining the Union's competencies in accompanying areas such as direct taxation, and continuation of open external trade policies**

The Single European Market (SEM) is a core European economic integration mechanism. It originated in the 1980s from the desire to remove non-tariff barriers (NTBs) to trade within the European Economic Community (EEC), the predecessor of the European Union (EU). NTBs were, in many instances, more trade-damaging than tariffs removed at the earlier stage of European integration (in the 1960s and 1970s). However,

over 37 years after the signing of the Single European Act in February 1986, the constituent foundation of the SEM, its implementation remains incomplete. Out of four declared freedoms of movement within the EU (of goods, capital, services, and people), only the first two are well advanced (although still incomplete), while the two others are much less advanced. Worse, the recent period – in particular the Covid-19 pandemic in 2020–2021, the finalization of Brexit at the

end of 2020, and a surge in energy prices caused by global inflation and the Russian aggression against Ukraine in 2022–2023 – brought several setbacks to the construction of the SEM.

CONCEPTUAL FRAMEWORK

Following Part III, Titles I–IV of the Treaty on the Functioning of the European Union (TFEU), the most frequent approach to SEM concentrates on removing cross-border technical and administrative barriers in the four areas of freedom mentioned above. However, suppose one thinks about the single market in broader terms: to equalize the actual easiness of cross-border movement of goods, capital, services, and people between member states (MS) with that within individual MS. In that case, more elements of the EU architecture and common EU policies must be considered.

First, the customs union is a natural companion arrangement to facilitate the free movement of goods and services. It shortens the time and decreases the costs of this movement by abolishing customs control at internal borders. It was founded in 1968, well before the adoption of the Single European Act. Today membership in it is mandatory for all EU MS, as is the case with the SEM. The same applies to a common trade policy, which regulates the EU's external trade and investment relations via the general rules of the World Trade Organization (WTO) and multilateral and bilateral trade agreements signed by the EU.

Launching a common currency, the euro, in 1999 was another integration step, which, apart from ensuring macroeconomic stability and harmonizing macroeconomic policies, decreased cross-border transaction costs in trade and investment, eliminated exchange-rate risk, and deepened a common financial market.

The interlink between the SEM and the Economic and Monetary Union (EMU) is best seen when one looks at the historical sequence of their adoption. After the unsuccessful attempts to implement the Werner Report of 1970,¹ the first blueprint for a monetary union, the adoption of the Single European Act in 1986 gave new impetus to the work on a single European currency. The latter was seen as a logical continuation of the former. The elimination of cross-border barriers to the free movement of goods, services, capital, and people could not be complete so long as each member state had its own currency, some with floating exchange rates. Unsurprisingly, the Delors report

¹ See <http://www.europarl.europa.eu/factsheets/en/sheet/79/history-of-economic-and-monetary-union> and Maes (2023).



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presented an EMU blueprint titled “One Market, One Money” (European Commission 1990).

Looking from another angle, the Schengen system of open internal borders and a control-free zone of travel – which was initially established in 1985,² entered into force ten years later, and was integrated by the Treaty of Amsterdam of 1997³ into the *acquis communautaire* – facilitated smoother cross-border movement of people and goods by abolishing border controls (Wolff 2016). In turn, the functioning of the Schengen area required deeper cooperation on justice and home affairs.

Other areas of integration and common policies are also crucial for the effective functioning of the SEM. Take the example of competition policy, including state aid rules. Its role is to ensure a level playing field for all participants in the SEM.

The same is true concerning minimal standards for the judicial systems in individual MS. Regardless of their legal tradition and institutional setups in individual MS (which are subject to national legislation), they must satisfy conditions of political independence, impartiality, professional competence, and honesty. Otherwise, property rights, business interests, security of economic transactions, and civil and political rights will not be sufficiently protected.

Apart from serving their purposes, the EU social, employment, environmental, and climate protection standards set common business conditions under which all SEM participants operate. However, in the social and employment spheres, EU regulations are relatively scarce, which is an effect of the limited competencies of EU governing bodies in these policy areas. Most regulations remain in the national domain, which results in very differentiated rules in individual MS (see below).

The above list is not complete. It serves just one purpose in our analysis: to see the SEM as a broader construction deeply interlinked with other components of the EU integration architecture rather than as a set of detailed technical regulations and standards in individual sectors (also crucial for the proper functioning of a common market).

GEOGRAPHICAL COVERAGE

When discussing and elaborating the Single Market concept (1984–1985), the EEC was a bloc of ten MS. In 1986, the year the Single European Act was signed, there were already 12 MS, and this number remained unchanged when the SEM became fully operational (in 1993). Then there were four rounds of EU⁴ enlargements (1995, 2004, 2007, and 2013) that increased the number of MS to 28.

However, Brexit, being the result of the June 2016 referendum in the UK and completed at the end of 2020, caused the departure of the second largest EU economy from the SEM and the common customs area. As a result of Brexit, the EU lost approx. 14 percent of its GDP in 2019⁵ in purchasing power parity terms and a very competitive and innovative economy, which undoubtedly weakened the SEM’s potential.

Looking to the remaining 27 countries from the broader conceptual perspective of the single market (see above), seven of them (Bulgaria, Czechia, Denmark, Hungary, Poland, Romania, and Sweden) remained outside a common currency area. However, Bulgaria and Denmark have permanently fixed exchange rates to the euro (both within the ERM2 arrangement), which diminish transaction costs and exchange rate risk. Four countries (Bulgaria, Cyprus, Ireland, and Romania) remain outside Schengen.

On the other hand, non-member countries and territories participate, to various extents, in the SEM. First, three member countries of the European Economic Area (EEA) – Iceland, Liechtenstein, and Norway – adopted all EU regulations related to the SEM (in its narrow meaning), competition policy, and state aid rules (see EEA 2013). The EEA Agreement, which entered into force in 1994, also covers several so-called horizontal policies such as consumer protection, company law, environment, social policy, and statistics, as well as flanking policies such as research and technological development, education, training and youth, employment, tourism, culture, civil protection, enterprise, entrepreneurship, and small and medium-sized enterprises. EEA countries are associated members of the Schengen area. However, they do not participate in the common agriculture and fisheries policies. They do not belong to the EU customs union. They conduct independent trade policies and have their own currencies (Dabrowski 2014).

Switzerland’s participation in the SEM is narrower than that of the EEA countries and is based on over 100 bilateral agreements with the EU in various sectors and policy areas.⁶ The main difference concerns the free movement of services, in which Switzerland has failed to reach a comprehensive agreement with the EU. Switzerland also does not apply the EU’s state aid rules. Furthermore, the system of bilateral agreements does not include a mechanism for their dynamic updating (along with new EU legislation) as in the case for EEA members. Like EEA countries, Switzerland is an associate member of the Schengen area. It has its own currency.

The European microstates – the Principality of Andorra, the Republic of San Marino, Monaco, and the City of the Vatican State (the Holy See) – depend

² <https://www.schengenvisainfo.com/schengen-agreement/>.

³ <https://www.europarl.europa.eu/about-parliament/en/in-the-past/the-parliament-and-the-treaties/treaty-of-amsterdam>.

⁴ The EEC was renamed into EU as result of the Maastricht Treaty, which entered in force on 1 November 1993.

⁵ Calculation made on the basis of the IMF World Economic Outlook database, April 2023.

⁶ <https://www.eda.admin.ch/europa/en/home/europapolitik/ueberblick.html>.

totally on trade and infrastructural links with the EU. However, their relations with the EU have been shaped case by case, and their participation in the SEM is only partial. As a result, their cooperation with the EU is only partial and based on bilateral sectoral agreements of varying thematic scopes and integrational depths (see European Commission 2012 for a detailed overview). All microstates use the euro, have open borders, and accept Schengen rules. Monaco and San Marino have full customs unions with the EU, while Andorra and the Vatican have only partial ones (Dabrowski 2014).

Partial participation in the SEM also concerns 13 EU Overseas Countries and Territories, which remain in political dependency on Denmark, France, and the Netherlands.⁷ However, most enjoy wide-ranging autonomy in economic and social policy, trade, and customs arrangements, so their links to the SEM are not strong. Their geographical location in the Atlantic, Antarctic, Arctic, Caribbean, and Pacific regions often cause gravitation to other economic partners than the EU.

The EU concluded over 40 trade agreements with 70+ countries worldwide.⁸ These agreements represent various degrees of depth and cover different sectors. All of them provide external partners with partial preferential access to the SEM and, by reciprocity, they also offer EU economic agents similar preferential access to external markets.⁹

The Stabilization and Association Agreements (SAAs) with the Western Balkan countries, Deep and Comprehensive Free Trade Agreements (DCFTAs) with Georgia, Moldova, and Ukraine, and EU-Turkey Customs Union deserve special attention. SAAs and DCFTAs offer partner countries partial access to the SEM and encourage them to adopt EU regulatory standards in several policy areas. The SAAs explicitly facilitate the EU accession process of Western Balkan countries by gradually adopting economic and trade-related *acquis*. Two countries (Kosovo and Montenegro) unilaterally introduced the euro as a national currency.

The DCFTAs were part of association agreements with three EU Eastern neighbors signed well before offering them the EU integration perspective. Nevertheless, they played an equally instrumental role in helping them adopt various pieces of the EU *acquis* (Dabrowski 2022).

The EU-Turkey customs union¹⁰ (limited to industrial and processed agriculture goods, except coal and steel products), the 1963 association agreement (the Ankara Agreement), and the Additional Protocol of

1970 were also designed as steps toward the future EU accession process. However, due to autocratic drift in Turkey, its accession process was suspended in 2019. For the same reason, the discussion about extending and modernizing the existing customs union was frozen (Stanicek 2020).

Finally, a post-Brexit EU-UK Trade and Cooperation Agreement¹¹ retains wide-ranging provisions regarding the free movement of goods and capital and partial access to the service markets. However, it does not continue the previous free movement of people. Northern Ireland remains partly in the EU Customs Union and continues to apply the SEM regulations regarding trade in goods.¹²

THE INCOMPLETENESS OF THE SINGLE MARKET

Despite almost four decades of implementation, the SEM architecture remains incomplete both *de jure* and *de facto*. Even the movement of goods across internal borders is not entirely free. Take, for example, energy goods. According to Article 194, paragraph 2 of the TFEU, MS retain the right “to determine the conditions for exploiting its energy resources, its choice between different energy sources, and the general structure of its energy supply.”

The EU market for goods does not present the same degree of homogeneity as the national market in the United States and other large countries or within individual EU MS. This sort of segmentation along national borders is caused not only by language and cultural differences but also by legal, regulatory, and institutional factors. These differences result from the framework character of many EU directives and regulations (which are then given concrete form by national legislators), non-compliance of some domestic rules with the European ones (the large number of infringement procedures initiated by the European Commission¹³), varying quality of public administration and judicial system, etc. Furthermore, the essential pieces of social and economic legislation – for example, labor law, social protection, and direct taxation – remain primarily in the hands of national authorities. As a result, several pan-European companies prefer to have a local subsidiary in each/most MS to deal with various local regulatory and policy challenges.

The situation is even worse in services. First, the single market for services has always had only a partial character. The Services in the Internal Market Directive of 2006 (popularly called the Bolkenstein Directive) and Professional Qualifications Directive of 2005 opened national service markets only partially to providers from other MS. Markets for several ser-

⁷ https://www.eeas.europa.eu/eeas/overseas-countries-and-territories_en.

⁸ <https://trade.ec.europa.eu/access-to-markets/en/non-eu-markets>.

⁹ The unilateral trade concession provided by the EU to low- and lower-middle-income countries under the Generalized System of Preferences (GSP, GSP+ and Everything but Arms) are the exception to the reciprocity rule.

¹⁰ <https://trade.ec.europa.eu/access-to-markets/en/content/eu-turkiye-customs-union>.

¹¹ <https://trade.ec.europa.eu/access-to-markets/en/content/eu-uk-trade-and-cooperation-agreement>.

¹² https://commission.europa.eu/document/download/f6e5886e-edb9-4d09-bdea-8bdbfcd750f7_en.

¹³ https://commission.europa.eu/law/application-eu-law/implementing-eu-law/infringement-procedure/2021-annual-report-monitoring-application-eu-law_en.

vices – for example, transportation, postal services, energy services, legal services, architects, and civil engineers – remain restricted.¹⁴ Beyond market entry regulations, language, cultural and legal differences play an even more prominent role than in markets for goods.

Integration of financial and capital markets (free movement of capital) has also not been completed despite ambitious projects of the Banking Union (BU) and Capital Market Union (CMU). In the banking sector, despite the Single Rulebook of 2009,¹⁵ Single Supervisory Mechanism (within the European Central Bank), and Single Resolution Mechanism (the latter two limited to the euro area), the role of national supervisory authorities and national regulations remains significant. The European Deposit Insurance System, the third pillar of the BU, is still a subject of professional and political debate (Beck et al. 2023).

The situation is even more complicated with the implementation of CMU (Demertzis et al. 2021), where differences in national legal frameworks and institutions (for example, company law or bankruptcy law) create obstacles that are difficult to overcome. As a result, financial and capital markets in the EU remain segmented along national borders.

The free movement of people also meets several obstacles originating not only from language, cultural, and legal differences but also from various national social, health, and tax regulations and limited portability of social benefits.

REVERSALS AND CHALLENGES

The history of SEM registers several cases of reversals in the common market rules and policies. The financial crisis in the euro area periphery led to the introduction of capital controls in Cyprus in 2013 (Wolff 2013) and Greece in 2015. Cyprus lifted these controls in 2015, while Greece did so in 2019.

The refugee crisis of 2015–2016 resulted in the reintroduction of selective internal border controls by several MS, some of them prolonged for the next few years. Traffic jams created by these controls demonstrated the role of open borders for the smooth transportation of goods, tourist services, and daily cross-border work commuting.

However, an even more significant challenge came with the Covid-19 pandemic in 2020–2021, when several MS just closed their borders and heavily restricted the movement of people, suspending international flights and train connections. While these drastic measures did not stop the spread of infection, they constituted a heavy blow to all kinds of cross-border economic links within the EU and with the outside world. At the same time, the European

Commission relaxed competition and state aid rules,¹⁶ creating more room for protectionist interventionism.

The next challenge came in 2022 when the Russian aggression against Ukraine and Russian cuts of natural gas supply to Europe caused a drastic increase in gas and electricity prices. Individual governments introduced compensatory measures for the population and businesses, which were incompatible between countries (Sgaravatti et al. 2021). Furthermore, the scale of these interventions depended on the fiscal space in individual countries, creating an unequal level playing field across the SEM. The European Commission's attempts to put these national interventions in the common EU framework largely failed.

Finally, the United States Inflation Reduction Act (IRA) of 2022, which offers subsidies to US producers of green-energy-related goods and technologies, triggered the temptation to create a similar mechanism in the EU (Tagliapietra et al. 2023). Given the limited resources in the EU budget, it would be up to national governments to provide such support, threatening a further fragmentation of the SEM.

POLICY CONCLUSIONS

After almost four decades of its implementation, the SEM project is not only far from being completed, but also under the constant risk of disintegration. The incompleteness has been caused not only by the numerous sectoral loopholes in technical legislation and the necessity to catch up with technological innovations and new challenges (such as digital services where the EU governing bodies have been able to adopt the meaningful legislation package). The obstacles also come from the imperfect EU integration architecture, which leaves regulatory decisions in many vital spheres as well as most budgetary resources in the hands of national governments (Dabrowski 2016). The latter's preferences often differ significantly from those of the EU governing bodies. Furthermore, protectionist interventionism is the frequent reaction to unexpected shocks.

Several actions are needed to complete the SEM and avoid its potential reversal. First up is the continuation of removing cross-border regulatory and administrative barriers to the free movement of goods, capital, services, and people. This is crucial for services, which contribute the largest share of the EU's GDP. Second, the existing regulations should be regularly updated to keep up with innovations and new challenges. Third, the enforcement prerogatives of the European Commission and the Court of Justice of the EU should be strengthened to minimize cases of rule infringements. Fourth, continuing external trade liberalization and defending the WTO global rules against increasing protectionist pressures supports the SEM by making it more competitive. Fifth, expanding the

¹⁴ https://single-market-scoreboard.ec.europa.eu/business-framework-conditions/services-markets_en.

¹⁵ <https://www.eba.europa.eu/regulation-and-policy/single-rule-book>.

¹⁶ https://competition-policy.ec.europa.eu/state-aid/coronavirus/temporary-framework_en.

EU budget and strengthening the EU competencies in accompanying social and economic policy areas, such as direct taxation, could help eliminate tax loopholes and hidden state aid and ensure a level playing field within the SEM.

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Mehtap Akgüç and Philippe Pochet

European Single Market 2.0: Striving for a More Social and Environmental Market Aligned with Open Strategic Autonomy

Ever since its inception in the mid-1980s, the single market¹ has been at the center of European economic integration, playing a key role in political and social integration. Created formally in 1993 through the adoption of the Single European Act together with the White Paper on the completion of the internal market, the single market represents a major milestone for the overall European project. According to Article 3(3) of the Treaty on European Union: “The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment.” In doing so, the Treaty presented a vision of Europe where market integration, economic prosperity, and social and environmental sustainability are closely linked to each other.

Indeed, by removing barriers to trade in the internal market as well as facilitating the free movement of capital and people within the Union, the European single market has led to the expansion of intra-European trade, increased competition and foreign direct investment, created jobs, and revived labor markets (Hafner 2017). The European Commission estimates that the economic benefits of the internal market could account for an 8 to 9 percent increase in GDP across the EU with one-fourth of the EU GDP generated from the trading of goods as well as the creation of 56 million jobs in Europe (in 't Veld 2019).

While economic prosperity has advanced with further integration of the internal market, there is also a widespread perception that integration has not been even across all domains, member states, or even regions within countries. The asymmetric nature of European integration points to a deeper market integration in contrast to the shallower social integration. Moreover, as with any regional agreement aiming for a free market, the internal market is mainly based on the fundamental economic objectives of harnessing competitive gains through comparative advantage and regional specialization combined with the free movement of goods and people. However, such economic dynamics also result in stretched supply chains, which while being efficient and economically beneficial often

¹ Throughout this article, we use the terms “single market” and “internal market” interchangeably.

KEY MESSAGES

- **The internal market is at the core of the European project and has had different phases and objectives supported by different coalitions of actors**
- **It is time to reinvent this project and prepare for an internal market 2.0 capable of confronting the new challenges – be they climatic or geopolitical**
- **This project should revolve around three axes: the dual transitions and in particular the environmental one, the social dimension, and the geopolitical (strategic autonomy)**
- **Even if difficult it could be possible to find a new coalition of actors and a new European social pact to support this**

come with environmental and social repercussions as a result of regional specialization (Akgüç et al. 2022).

In what follows, we first provide a brief analysis of the evolution of the internal market by keeping a global perspective. We then propose to focus on three key axes along which the single market 2.0 should be calibrated to be resilient in the face of future challenges. Finally, we reflect on potential policy options for launching this new vision of the single market.

RESILIENCE AND TENSIONS OF THE INTERNAL MARKET IN THE MIDST OF VARYING GLOBAL DYNAMICS OVER THE PAST FEW DECADES

The revival of the internal market in 1985 can generally be understood as a product of the desire to create a European form of capitalism. This project was sup-



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ported at the time by some 40 major leaders of large multinational companies who formed the Round Table of Industrialists, an episode well chronicled in the analyses of Professor Bastiaan Van Apeldoorn (2003). It was also the project pursued by Jacques Delors, the then President of the Commission. This period saw a form of compromise between the political forces of the left and the right on the internal market, as well as the emergence – to a certain extent – of a social dimension, illustrated, for example, by the establishment of the European social dialogue and by the Community Charter of the Fundamental Social Rights of Workers and the accompanying social program (1989).

However, as globalization progressed, the project of European integration gradually evolved to become a mere link in this greater process chain, which ultimately subsumed European autonomy. This is also well illustrated by Van Apeldoorn's work, which shows how, in the mid-1990s, the Round Table of Industrialists became dominated by Anglo-Saxon multinationals whose goal was to focus production in three major economic regions of the world: Asia, Europe, and North America. It was back then that China became the factory of the world.

Against this backdrop, social compromise was replaced by the deregulation of social protections at national levels, with the Bolkestein Directive (2005) and the Laval et al. (2008) rulings of the European Court of Justice being the most notable examples in that direction. These decisions were compounded by a pressure to deregulate, which resulted from the economic crisis of 2008–2009 as well as the first (2004–2009) and particularly second (2009–2014) Barroso Commissions. It was in this context that Mario Monti (2010) wrote a strategic report that, while positive about the successes of the internal market, was also critical about its shortcomings, particularly in social and environmental domains.

By the mid-2010s, the situation had once again begun to change. China was becoming a technological and political power – a systemic competitor – and the idea of a rising tide of globalization to lift all boats was fading. At the same time, populist movements critical of European integration and the internal market were on the rise. The most significant example was the radical change that took place in the United Kingdom, when conservative elites successfully advocated a withdrawal from the single market, leading to a majority Brexit vote in 2016.

Beginning in 2020, the Covid-19 crisis opened up a new debate, with the initially disorganized European response calling into question the commitment to freedom of movement and highlighting the fragility of the supply chain, now deemed “strategic” (European Parliament 2021). Autonomy and strategic sovereignty became the new mantra, with France and later Germany leading the way. Considering both the Covid-19 and environmental crises, many have excessively questioned the long – and vulnerable – value

chains generating strategic dependencies and called for better integrated and more local production. Recycling and product quality (through high environmental standards) have become not only essential but also critical for keeping resource exigency under control during this transition. The Russian invasion of Ukraine and the ensuing energy crisis have highlighted the new global geopolitics and, as with Covid-19, called into question pillars of the internal market such as state aid or competition rules.

On the other hand, this new environmental (and social) taxonomy and reporting, along with the analyses of the environmental stability of banks and of companies in general by the European Central Bank, indicate a change in outlook for financial markets and companies. Now the consensus is that supply chains should be made shorter in order to reduce CO₂ emissions and that there is a need for reshoring part of the strategic production of goods. This also means rethinking a new industrial policy for Europe that also covers the service sector (Juhász et al. 2023). As major investments are being made in this transition, we are seeing changes in state aid, competition rules, and – to a limited extent after the revisions – the Stability and Growth Pact. All in all, the “Alibaba” model – perhaps the best analogy of the way the internal market developed after 1992, i.e., providing the consumer with ever cheaper products from further and further away without any real regard for social and ecological concerns – has become outdated.

THREE KEY AXES TO CONSIDER WHEN MOVING TOWARD THE EUROPEAN SINGLE MARKET 2.0

At such a critical juncture of swinging geopolitical context and constantly evolving European economic, social, and ecological transformations, we argue that if the internal market wants to reinvent itself and face the challenges of the coming decades with increased socioeconomic resilience and environmental sustainability, it has to do so by considering three key axes: (i) dual transition, (ii) social sustainability, and (iii) open strategic autonomy.

First, the dual transition, composed of digital and green transitions, is set to transform many aspects of European economies, societies, and environment as well as geopolitical relations with other regions of the world. On the climate front, the ever-increasing resource exigency as a result of massive industrialization and other human induced environmental degradation has led to uncontrollable emissions of greenhouse gases with irreparable repercussions on the whole ecosystem. Numerous IPCC reports, among others, point to irreversible environmental and societal impacts if climate and environmental preservation targets are not achieved by the mid-21st century. The overarching European Green Deal and the accompanying “Fit for 55” package with legislative proposals to tackle climate crisis aim to either decouple eco-

conomic growth from resource use and environmental degradation or increase circular economy action to keep resource consumption within planetary boundaries and reduce dependence on others for critical raw materials through, for example, recycling. These initiatives are also in line with the framework on sustainable product policy through which consumers are not only offered maintenance and repair options, but also informed in a transparent manner about the ecological footprint of the product they want to buy.

On the digital front, the transformation has been not only changing the production processes through automation and robotization, but also disrupting the world of work when the substitution effects of technology outweigh the complementarity effects leading to job losses, for instance. The digitalization of the world of work, while it can increase efficiency as well as flexibility in task performance, could also lead to situations with precarious work arrangements and concerns over working conditions. Therefore, digital transformations, including the rapidly developing artificial intelligence innovations, should be carefully monitored when considering their implications for the world of work.

Second, Europe has been proudly promoting its unique social market economy model in which the social welfare state and other progressive social aspirations have slowly yet steadily found their place by establishing a floor of rights – particularly in domains such as occupational health and safety but also in other areas such as free movement of people or worker rights – while paving the way on further market integration over the past few decades. However, various shocks such as the austerity years following the 2008 financial crisis have also left their mark in the social domain via the prevalent cuts in public spending (Degryse et al. 2013). It is then not surprising that the erosion of political and social support for the single market (in Monti's words) is shaped – partly – by the perception that the market is unfair and might have generated significant inequalities both between and within countries in Europe. This is why a reorientation of the single market by ensuring social sustainability is all the more necessary to achieve large-scale political and social support.

Finally, the open strategic autonomy notion has been put forward as a key European policy framework, mainly starting with the Covid-19 pandemic which exposed critical dependencies in strategic sectors (Akgüç 2021). The enlarged concept has become even more relevant after the invasion of Ukraine by Russia. As open strategic autonomy has direct implications for supply chains and economic efficiencies, rethinking the single market to reduce strategic dependencies and increase socioeconomic resilience – while keeping ecological footprints in line with the European Green Deal and climate targets – will imply reshoring certain production lines back to Europe as well as to shorten

and diversify stretched supply chains. Such ambitions require significant modifications to the competition rules and level-playing-field functions of the single market, which has been considered almost untouchable due to strong market deregulation over the past few decades. But Covid-19 has already changed that picture and more changes are underway (e.g., temporary framework on state aid or revised regulation on IPCEIs). At the same time, we can already notice that a new European industrial policy has been developing to answer those challenges (McNamara 2023).

The European Commission's recent Strategic Foresight Report adopted our emphasis on these three key axes when thinking about transforming “our society and economy toward a model that respects planetary boundaries, and safeguards global competitiveness, strong social foundations, and resilience” (European Commission 2023). The question is how we get there without leaving out any of these axes.

POLICY PERSPECTIVES FOR THE FUTURE

What can we conclude from this? First, the long cycle that began with the creation of the internal market – whose first phase brought opportunities for the social dimension, but which ultimately led to global integration, resulting in a long period of anti-social policies – has come to an end. We are now entering into a new period, in which the rules of the internal market are changing in response to the pressing need for environmental sustainability and (open) strategic autonomy. The question now is what place the social dimension, including the question of good jobs, will occupy in this new architecture and how choices regarding the future of the internal market will be made. This will ultimately depend on the preferences of national and European actors, in a context shaped by global forces.

For the purposes of this article, we propose a more global view. The environmental challenges and the fulfilment of the Paris Agreement will put the issue of global value chains and the reduction of their length and complexity at the top of the agenda, which in turn is closely linked to the open strategic autonomy debate.

This reconfiguration of production models combined with the development of the circular economy calls for us to refocus, away from price (after all, an Indian or Vietnamese subcontractor will always be cheaper than a German or Scandinavian subcontractor) and toward product quality. A perfect example is that of batteries. The objective is to have high standards that allow for a good recycling rate (and therefore additional jobs) relative to the manufacturing rate. In other words, the emphasis is shifting toward a product defined by its quality and not just its price. High standards, it should be noted, was one of the explicit objectives of the 1992 internal market. Meanwhile, product quality is consistent with environ-

mental issues, and a “circular economy” replaces the central concept of price.

But this quality must be accompanied by social quality and employment. This is the objective of creating and developing quality jobs that make sense (see, for example, the discussion on good jobs by Rodrik and Sabel 2022). This is what happens in Germany, for example, in the *Mittelstand*, which consists of small and medium-sized enterprises producing quality goods with good working conditions and worker participation. This is just one example, but it represents the objective: quality of work combined with quality of products.

Finally, this new perspective can take shape only if we go beyond the traditional approach to wealth as it is often measured via an indicator such as GDP. In this respect, there are many debates on alternative indicators for measuring wealth and well-being. But here, too, the underlying phenomenon is clear: to move from a monetary evaluation of wealth to the measurement of quality of life. This is a decisive step toward redefining well-being in a low-carbon society (the recent Strategic Foresight Report 2023 also highlights this dimension).

As stated in the introduction, a paradigm shift such as the one the internal market project signified in the 1980s and 1990s opens up space for the negotiation of agreements between opposing interests. We are clearly in this situation again today. In this context, Europe must redefine its project and find a new eco-social model. From our perspective, a new social pact involving employers interested in quality products, workers and trade unions concerned with the quality of work, and all NGOs and citizens advocating for a better quality of life could be envisaged.

Of course, this is an extremely ambitious vision that obviously raises many difficult questions. What kind of industrial and competition policy would this necessitate? Isn't there a risk that the larger member states and their companies would be the big winners? How can we ensure that existing cross-country, regional, or intra-group inequalities are not exacerbated in a future internal market faced with tremendous

transformations both within and outside Europe? It thus requires us to engage in debates that are both open and complex. At its heart, though, such a vision paves the way for a profound reflection on the fundamental objectives of European integration and Europe's place in the world in the context of climate emergency – and opens up the possibility for real change.

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Lucia Quaglia and Amy Verdun

The Increasing Geoeconomic Usage of the Single Market for Financial Services*

The European Union (EU) has created a Single Market in financial services (traditionally, banking, capital markets, and insurance, see Quaglia 2010), the evolution of which has become entangled with geoeconomics, i.e., “the systematic use of economic instruments to accomplish geopolitical objectives” (Blackwill and Harris 2016, 1). The main rationale of geoeconomic measures is not the achievement of mutually beneficial economic gain, but rather the pursuit of geostrategic advantages by seeking relative rather than absolute gains.

We examine the geoeconomic use of the Single Market in financial services by focusing on the period since the Great Financial Crisis of 2008, which was a turning point in global finance. We consider three case studies that concern international players that are of importance to the EU: the United States (US), the United Kingdom (UK) and Russia. Using these cases we explore variations in the geoeconomic use of the Single Market and the factors that may account for the observed pattern, ranging from the only incipient geoeconomic use to the outward weaponization of the Single Market. The cases are discussed in chronological order: the transatlantic tug-of-war about the governance of global finance after the Great Financial Crisis; the Brexit negotiations in finance after the 2016 referendum on the UK’s withdrawal from the EU; and the adoption of EU’s financial sanctions against Russia in 2022 and 2023.

Borrowing from ancient military jargon, we adopt four metaphors to characterize the geoeconomic deployment of the Single Market and EU’s geoeconomic actorness. Having identified four ideal-typical usages of the Single Market in financial services, we argue that a combination of external and internal factors accounts for these patterns. First, at the systemic level, there were growing challenges to the liberal international order. Second, at the domestic (here: the EU) level, there was the EU’s ability to use its Single Market for geoeconomic purposes.

A FRAMEWORK TO EXPLAIN THE GEO-ECONOMICS OF THE SINGLE MARKET IN FINANCIAL SERVICES

Our analytical framework combines external and internal factors at the international and

* This piece draws on a longer forthcoming academic article by both authors that will be published in *JCMS: Journal of Common Market Studies* 62(1). A more detailed list of references, sources and interviews can be found there.

KEY MESSAGES

- **The Single Market in financial services has increasingly been used for geoeconomic purposes, that range from incipient geoeconomic use to outward weaponization of the Single Market in finance**
- **This geoeconomic usage can be illustrated in a few salient cases that involve the EU and other major jurisdictions: (1) the post-2008 crisis transatlantic tug-of-war; (2) the Brexit negotiations; and (3) during the full-scale war in Ukraine**
- **We adopt four metaphors to characterize the geoeconomic deployment of the Single Market and the EU’s geoeconomic actorness. These are shield and sword; testudo; phalanx and scattered commandos**
- **A mix of external and internal factors accounts for this pattern, for instance, changes to the international economic and political system as well as the development of the EU’s ability to deploy its Single Market geoeconomically**

domestic levels. The first dimension of our explanatory framework concerns the systemic level – the international context in which the EU interacts. Major changes in the international economic and political system have been conducive to the geoeconomic use of the Single Market for financial services. The second dimension of our explanatory framework concerns the domestic level. Taking as a given the considerable size of the EU’s market for financial services and the EU’s regulatory capacity (i.e., the EU’s ability to regulate this market), we argue that the cohesiveness (i.e., unity or otherwise) of the EU has had an impact



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on the deployment of the Single Market for geoeconomic purposes.

Conceptually, we identify four possible outcomes of the geoeconomics of the Single Market in finance. We offer four metaphors – ideal types – borrowed from ancient military formations and tools, to characterize the geoeconomic usage of the Single Market for defensive and offensive purposes. The EU can deploy its Single Market as (1) a “shield” (for instance, to deflect the extraterritorial effects of third-country regulation) and as a “sword” (to project its regulatory power externally), sometimes in an uncoordinated manner. The EU can deploy its Single Market (2) as a “testudo,” which is a military formation whereby a group of soldiers protect themselves on all sides by using their shields in a coordinated manner. The EU can use its Single Market as (3) a “phalanx,” i.e., a military formation whereby a group of soldiers deploy shields and spears in a coordinated manner for defensive and offensive purposes. Finally, groups of member states can deploy the Single Market as (4) “scattered commandos,” in an uncoordinated manner (Figure 1).

By combining our two explanatory factors and the outcomes, we construct a matrix. Used as a heuristic device, our explanatory factors and outcomes are placed nicely into boxes; reality is of course much messier. Next, we apply the analytical framework outlined above to three selected case studies. For each case, we outline the international economic and political context; we examine the intra-EU dynamics; and we explore the use of the Single Market for geoeconomic purposes.

TRANSATLANTIC REGULATORY TUG-OF-WAR AFTER THE GREAT FINANCIAL CRISIS

The tug-of-war between the EU and the US on the governance of global finance, after the Great Financial Crisis of 2008, provides the first case study. Both the EU and US adopted more stringent domestic regulation, after the 2008 crisis, in a variety of financial services, but, initially, they did so in an uncoordinated

way. Both these powers acted unilaterally and set out to export some of those rules to third countries, including each other. On the one hand, the EU’s support for more stringent post-crisis financial regulation was driven by social purposes and not primarily by geopolitical concerns. Yet, the transatlantic regulatory tug-of-war had geoeconomic implications: US-EU regulatory disputes could (and, sometimes, did) trigger the fragmentation of cross-border financial services (notably, derivatives), which was unpalatable to the financial industry on either side of the Atlantic. EU negotiations with the US were driven more by relative than absolute gains: business communities were eager to avoid disputes.

The simultaneous tightening up of the US post-crisis domestic financial regulation led to a range of disputes (Quaglia 2014). Transatlantic regulatory disputes, defined as disagreements between jurisdictions about the content and/or scope of each other’s regulations, were particularly heated with reference to hedge funds and derivatives. Three points are particularly noteworthy. First, while these disputes involve seemingly technical matters, the core issues were who should set the rules for global finance, whose domestic rules should prevail, how such an agreement would affect global financial stability, as well as the competitiveness of domestic financial industries. Second, the EU was able to deploy its market power (including its increased regulatory capacity) as a “shield” and a “sword,” to protect its Single Market and to gain better access to foreign markets for the EU financial industry. Third, in some of these regulatory disputes, notably on hedge funds and, somewhat less, on derivatives, the EU was internally divided as the UK sided with the US.

Post-crisis transatlantic regulatory disputes were resolved mostly by “mutual accommodation,” whereby the EU and the US adjusted domestic rules (or their application) so as to minimize cross-border regulatory clashes (Posner and Quaglia 2023), whereas previously, whenever transatlantic regulatory clashes in finance occurred, the EU usually gave in to the US. Overall, the EU used the Single Market in financial services as a shield to deflect and to push back against the extraterritorial effects of US financial regulation, and as a sword to project its regulatory power externally.

BREXIT – MAINTAINING A UNITED FRONT

A second notable instance of the geoeconomic use of the Single Market in financial services, this time as a testudo, occurred during the Brexit negotiations, i.e., the negotiations concerning the UK’s departure from the EU and the subsequent EU-UK economic and political relations. Following the Brexit referendum, it was not clear whether the EU would find and maintain a united front when negotiating with the UK (Cini and Verdun 2018). Prime Minister Boris Johnson repeatedly

Figure 1
The Analytical Framework with Metaphors and Case Studies

		EU level	
		Internal divisions	Internal unity
International level	Limited challenges to LIO	Transatlantic regulatory disputes after 2008 (shield and sword)	Brexit (testudo)
	Major challenges to LIO	“Differentiated” adoption of financial sanctions by member states (scattered commandos)	Financial sanctions against Russia (phalanx)

Note: LIO = liberal international order.
Source: Authors’ compilation.

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declared that he wanted to “have his cake and eat it” (Dallison 2017), meaning that the UK would cease to be a member of the EU, while continuing to take advantage of many of the benefits that ensued from EU membership (Verdun 2023).

Instead of allowing internal differences to prevail, the EU was in this case able to speak with one voice thereby protecting the integrity of the Single Market. Throughout the negotiations, the European Commission, the European Parliament (EP), and the member states made clear in concrete terms that the four freedoms were indivisible and that there would not be a special deal for finance. Although exceptions would have been economically advantageous for the UK, as well as for EU financial operators engaged in cross-border business, financial interest groups based in the EU were told not to campaign publicly for a special deal for finance (James and Quaglia 2021).

The German and especially the French governments insisted on the need for a tough EU negotiation position vis-à-vis the UK and to maintain the integrity of the Single Market ruling out a special deal for finance. They also saw Brexit as a good opportunity to lure business away from London and to encourage financial entities and activities to relocate to the main continental financial centers, notably, Paris and Frankfurt, what Howarth and Quaglia (2018) have called the “battle for financial services,” with the main continental financial centers “competing for a share of the pie” (Verdun 2023, 113).

The EU’s negotiating stance was maintained over time and no special deal for finance emerged. The UK-EU (2020) Trade and Cooperation Agreement made no specific provisions for financial services. It was accompanied by a non-binding Joint Declaration committing the UK and the EU to “agree to establish structured regulatory cooperation on financial services.” A subsequent four-page EU-UK Memorandum of Understanding (2021) only discussed non-legally binding regulatory cooperation (HM Treasury 2021), while not addressing the issue of market access.

Financial services are crucial to the UK as that country is, still today, the world’s largest exporter of these services. At the time, approximately one-third of that export went to the EU. Thus, this issue was of considerable economic and political significance given the impact of Brexit on finance in the UK and the EU. The EU acted as a block forcing the UK to accept EU terms, ensuring that the interests of the EU as a whole and the integrity of its Single Market were protected. The way in which the EU negotiated with the UK, we argue, was informed by some geoeconomic considerations because EU positions were driven more by relative than absolute gains. In fact, both UK and EU financial sector businesses were interested in a special deal; yet it were more the goals of keeping the Single Market intact and maintaining clearly demarcated inside/outside borders of the EU polity that prevailed over considerations of economic gain.

THE WEAPONIZATION OF THE SINGLE MARKET FOR FINANCIAL SERVICES DURING THE WAR IN UKRAINE

The third case study examines the deployment of the Single Market in financial services as a tool of economic warfare against Russia. Although the EU had already imposed sanctions against Russia following the annexation of Crimea and the destabilization of Ukraine in 2014, those sanctions mostly pertained to the diplomatic dimension, targeting individuals, and an embargo on Crimea (Portela et al. 2021). It was only after the full-scale Russian invasion of Ukraine, from February 2022, that the EU “weaponized” (Farrell and Newman 2019; Quaglia and Verdun 2023) its Single Market in finance vis-à-vis another major international power (European Union 2022). The financial sanctions against Russia had defensive and offensive purposes. Two factors account for this geoeconomic use of the Single Market in finance as a phalanx: a significant shift in the external environment and intra-EU agreement to deploy its market for foreign policy, specifically, security-related, goals.

At this time, the international context features the shrinking space for multilateral negotiations in trade policy, but also in other areas, such as environment and climate change. There are also growing concerns about the security and strategic implications of economic interdependence. Another change is the rise in US-China systemic rivalry. Challenges are also posed by the potential unravelling of European economic and political integration following the UK’s departure from the EU in 2020. These changes add to the overarching spread of populism, nationalism, sovereignism, and nativism at the domestic level. Moreover, multilateral cooperation faces opposition from anti-globalization forces. These major shifts in the international economic and political system, and specifically, the multiple challenges to the liberal international order, provided increasing pressure on the geoeconomic usage of the Single Market.

Intra-EU developments also played a role. President of the Commission Ursula Von der Leyen and her College of Commissioners appointed in 2019 were a self-proclaimed “geopolitical Commission,” to take a more prominent global stance after having had difficulties taking on political leadership previously. This idea did not originate from von der Leyen. Rather, the national leaders who appointed her, particularly French President Emmanuel Macron, favored this change in direction (Müller-Hennig 2019). High Representative of the EU, Josep Borrell (2019), described the international context as characterized by “power politics,” where “international law is.....undermined and ... trade, technology and finance are used as tools of international competition. They become political weapons.” Borrell also pointed out that for the EU “geopolitics begins at home.”

In addition to intra-EU agreement, the sanctions against Russia were coordinated with the other coun-

tries of the Group of Seven (G7) namely, Canada, France, Germany, Italy, Japan, the UK, and the US. The first set of sanctions was adopted on February 28, 2022. They consisted of the following components: the removal of selected Russian banks from the SWIFT messaging system to disconnect these banks from the international financial system and harm their ability to operate globally; restrictions concerning the access of certain Russian entities to EU capital markets; prohibition for EU banks to accept deposits exceeding certain amounts by Russian nationals; prohibition for EU central securities depositories to hold accounts of Russian clients; prohibition to sell euro-denominated securities to Russian clients; restrictive measures to prevent the Russian central bank from deploying its international reserves in ways that undermined the impact of the economic sanctions adopted against Russia, de facto, the prohibition of transactions with the Central Bank of Russia and the freezing of all its assets (Walker 2022). It was also agreed to limit the sale of citizenship to Russians (European Commission 2022).¹

Three points stand out with reference to the weaponization of the Single Market in finance. First, the EU had a cohesive stance. After the general agreement by the G7 countries, the various sanctions packages were adopted unanimously by the Council of the EU and endorsed by the European Parliament. Furthermore, the EU was not arm-twisted by the US to adopt these sanctions, unlike what happened in the past. Second, the quest for intra-EU consensus was more elusive with reference to economic sanctions concerning the import of oil and gas from Russia as member states had different degrees of dependency on Russian fuel. It was difficult for the EU to decide whether to limit the price of gas as the winter of 2022–2023 approached after nine months of full-scale war. Yet, intra-EU consensus prevailed on the need to have financial sanctions. Third, this geoeconomic usage of the market may serve as a double-edged sword: it is at once an instrument of foreign policy, but also creates incentives for players that are being pushed out to set up alternative financial instruments or markets, and risk the orderly functioning of the global financial system.

POLICY CONCLUSIONS

We have examined variations in the use of the Single Market in financial services by identifying four ideal-typical geoeconomic usages. During the EU-US regulatory disputes post-2008, the EU mostly acted as a market power, seeking to externalize its domestic rules (shield and sword). During the Brexit negotiations, the EU maintained unity (testudo) vis-à-vis the UK to protect the integrity of the Single Market. When

imposing sanctions against Russia, by contrast, the Single Market in finance was deployed for geopolitical reasons (phalanx) to constrain Russia. Moving forward, it could happen that, if the coalition of supporting EU member states falls apart, or if the EU deploys other financial instruments (e.g., the euro or Banking Union) against Russian aggression, a risk to the unity of the EU's geopolitical use of its economic power could transpire (scattered commandos). This situation might occur especially if member states have competing preferences. Should such a moment arise, it would fill the fourth cell of the matrix (the left bottom in Figure 1), which includes instances in which the EU is internally divided, while the liberal international order is under siege.

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¹ Similar financial sanctions were subsequently adopted against Belarus. More packages were agreed to in subsequent months; at the time of writing the last one was agreed to in June 2023.

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Iulia Siedschlag

The Effects of the European Single Market on Attractiveness to Foreign Direct Investment

KEY MESSAGES

- **The European Single Market has been a major driver of enhanced attractiveness of EU countries to foreign direct investment (FDI)**
- **Higher FDI by multinational firms in EU countries has fostered productivity and employment growth and has also generated wider benefits to host economies via knowledge spillovers on the productivity and trade performance of domestic firms**
- **The completion of the Single Market, especially in the areas of services and capital markets, could further increase trade and investment in EU countries**
- **Removing regulatory barriers at both the EU and member states levels in the areas of services could strengthen the integration of business services in key manufacturing sectors and could result in a more efficient integration of firms in European and global value chains**
- **An integrated Single Market for capital would improve financing and investment opportunities for European firms**

The European Single Market Program introduced on January 1, 1993, comprised a range of measures to reduce and eliminate non-tariff barriers (administrative and regulatory barriers) between member states with the aim to foster intra-EU trade and increase competition, productivity, and ultimately welfare gains in the long run.

One of the most significant achievements of the European Single Market is that it has enhanced the attractiveness of EU countries to foreign

direct investment (FDI), in particular market-seeking FDI from outside the EU. This is consistent with predictions of the early literature on FDI known as the Ownership-Location-Internalization (OLI) framework (Caves 1974; Dunning 1977; Vernon 1966), formalized in seminal papers by Helpman (1984), Helpman and Krugman (1985), Markusen (1984, 1995 and 2002), Markusen and Venables (1997 and 1998), as well as more recent theoretical models of international trade with firm heterogeneity (Helpman et al. 2004),



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and supported by empirical evidence on the location choice of foreign affiliates in EU countries by multinational firms (Head and Mayer 2004; Davies et al. 2018; Siedschlag et al. 2021) and evidence on the impact of the EU Single Market on inward FDI flows to EU countries (Dunning 1997; Neary 2002; Bruno et al. 2021). In addition to these expected effects of the European Single Market on FDI, recent evidence suggests that the quality of the Single Market institutions, in the sense of a timely and correct transposition of the Single Market legislation, has been a source of comparative advantages and increased production linkages via FDI between EU countries (Wolfmayr et al. 2019).

A large body of international evidence has established that FDI by multinational firms is associated with new technologies and managerial know-how, which boost productivity and competitiveness in host countries (Bloom et al. 2012; Schiffbauer et al. 2017). There is growing evidence showing that FDI in EU countries has contributed to direct economic gains in terms of productivity, exporting, and employment growth (Barrell and Pain 1998; Driffield and Taylor 2000) and has also generated wider benefits to the host economies via knowledge spillovers on the productivity and trade performance of domestic firms (Jude 2016; Haller 2014; Di Ubaldo et al. 2018; Ciani and Imbruno 2017; Bajgar and Javorcik 2020; Di Ubaldo and Siedschlag 2022).

EUROPEAN SINGLE MARKET AS A DRIVER OF FOREIGN DIRECT INVESTMENT

Bruno et al. (2021) provide evidence showing that the European Single Market has been the main driver of higher FDI in EU countries. Using a structural gravity model and data on bilateral FDI for the 1985–2018 period, they estimate that EU membership resulted in 60 percent higher FDI inflows from outside the EU and around 50 percent higher intra-EU FDI. This effect appears positive and statistically significant only after 1993, and it is larger than the impact of economic integration on FDI in the European Economic Area (EEA), North Atlantic Free Trade Agreement (NAFTA), and Mercosur. The authors estimate that 93 percent of the EU membership premium is due to the European Single Market.

Davies et al. (2018) find that access to the European Single Market has been a key driver of the location choice of new foreign affiliates by multinationals in EU countries. Using data on 18,110 new foreign affiliates established in EU countries between 2002 and 2013, they find that countries with a greater EU

market potential,¹ are particularly attractive to FDI from multinationals with headquarters outside the EU. The results also indicate that investing in EU countries is more attractive the farther away from the EU investors are. This suggests that FDI in EU countries by investors from outside the EU is market-seeking, in particular seeking access to the EU Single Market. Further results indicate that intra-EU FDI is mainly efficiency-seeking. While EU investors are less likely to invest in countries with a greater access to the Single EU Market (large core countries), greater access to the EU Single Market substantially increases the attractiveness for investment from non-EU investors in both manufacturing and services, with a larger effect in the case of FDI in services. Taken together, these results are consistent with economies of scale and lower transaction costs as the main motivation for market-seeking FDI from outside the EU (Head and Mayer 2004; Fontagné and Mayer 2005), while labor cost differentials appear to drive efficiency-seeking intra-EU FDI (Bevan and Estrin 2004).

Using data on 60,743 new greenfield FDI projects² (2003–2020) from the Financial Times fDi Markets database, Siedschlag et al. (2021) estimate that the EU market potential has been more important than domestic market potential for FDI attractiveness in high-value knowledge-intensive sectors³ across EU regions and countries.

COMPLETING THE EUROPEAN SINGLE MARKET: THE NEED FOR FURTHER INTEGRATION IN THE AREAS OF SERVICES AND CAPITAL MARKETS

Notwithstanding the substantial progress made in the implementation of the Single Market and the associated economic gains in terms of welfare, productivity, employment, and trade (as highlighted in many research papers and reports), the Single Market is still incomplete, which is why the anticipated potential benefits have yet to fully materialize (Wolfmayr et al. 2019; European Commission 2023). The main reasons for the incomplete implementation of the Single Market identified include incorrect, incomplete, or late transposition and application of EU harmonized rules, fragmented regulation, and inconsistencies between EU and national laws, as well as incomplete admin-

istrative cooperation and lack of information about rights and their application in practice.

Recent evidence on the performance of the Single Market for goods after 25 years provided by Wolfmayr et al. (2019) indicates that a timely and correct transposition of the Single Market legislation has fostered export specialization in contract-intensive industries and international production linkages via FDI between EU countries. This evidence is consistent, on the one hand, with a growing body of empirical literature on the quality of institutions as a source of comparative advantage and export specialization (Nunn 2007; Levchenko 2007; Chor 2010; Cuñat and Melitz 2012; Nunn and Treffler 2014) and, on the other hand, with another literature strand highlighting that institutional characteristics across countries, in particular with respect to contract enforcement, affect firms' organizational choices in the context of their international production operations (Antràs and Chor 2013; Antràs and Yeaple 2014). To the extent that export specialization is linked to higher long-term productivity (Quah and Rauch 1990), this evidence suggests that improving the quality of the Single Market institutions in the sense of a timely and correct transposition of existing Single Market rules could be an important driver of welfare gains in EU countries. Furthermore, recent research results have shown that international sourcing choices are associated with relationship-specific investments that are linked to productivity growth and welfare (Antràs et al. 2017; Constantinescu et al. 2017).

In addition to enforcing the existing Single Market rules, further integration in the area of services has a large potential for increased cross-border trade and investment. As highlighted in a recent research paper (Vandermeer 2022), a significant proportion of barriers to trade and investment in the area of services, such as regulatory and administrative burdens, lack of skilled workers, shortage of supply of product inputs and low labor mobility, appear to be persistent: 60 percent of the barriers in the area of services businesses reported in 2022 are of the same type as those reported in 2002, 20 years ago. While many of these barriers are related to national regulation and administrative practices, there is also a role for EU policy to facilitate the removal of regulatory and administrative barriers. Removing regulatory barriers at both the EU and member states levels would allow a more efficient allocation of resources across firms and sectors and a more efficient integration of firms in European and global value chains by strengthening the integration of business services in key manufacturing sectors (Di Ubaldo and Siedschlag 2018).

Another area of further Single Market integration where progress is needed is the completion of the Capital Markets Union. An integrated Single Market for capital would diversify funding sources and improve investment opportunities for European firms (European Commission 2023). In addition, as highlighted by

¹ Market potential is a measure of market access calculated as the sum of the economic size of each of the EU countries other than the host country discounted by the bilateral distance between the host country and each of the other EU countries.

² New greenfield FDI projects are new operations established by foreign companies at a new site. The foreign company may or may not already be present in the country, but the FDI project is in a new location within the country. It can also include relocation from one country to another.

³ The knowledge-intensive sectors considered in the analysis are: aerospace; biotechnology; pharmaceuticals; medical devices; semiconductors; business machines and equipment; electronic components; consumer electronics; communications; software and IT services; financial services; business services; and space and defense. These sectors have been identified following the Eurostat classification for knowledge-intensive sectors matched with the sectoral classification used by the Financial Times fDi Markets.

Demertzis et al. (2021), deeper and more integrated capital markets in the EU would facilitate increased equity-based financing, which is better suited than banks to finance investment in high-growth sectors such as digital and high-tech (sectors high in intangible capital that cannot be used as collateral) as well as green technologies in carbon-intensive sectors.

POLICY CONCLUSION

The European Single Market has been a major driver of enhanced attractiveness of EU countries for foreign direct investment (FDI), in particular for market-seeking FDI from outside the EU. Higher FDI from multinational firms in EU countries has fostered productivity and employment growth and has also generated wider benefits to host economies via knowledge spillovers on the productivity and trade performance of domestic firms. A timely and correct transposition of the Single Market could foster export specialization and production linkages between EU countries. In addition to enforcing the existing Single Market rules, the completion of the Single Market especially in the areas of services and capital markets could further increase trade and investment in EU countries. Removing regulatory barriers at both the EU and member states levels in services could strengthen the integration of business services in key manufacturing sectors and could result in a more efficient integration of firms in European and global value chains. An integrated Single Market for capital would provide more diversified funding sources and improve investment opportunities for European firms.

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Andreas Baur and Lisandra Flach

Protectionism on the Rise? New Challenges for EU Trade Policy*

KEY MESSAGES

- We review the EU's trade policy trajectory up to now, situating it within the international context. We then examine new challenges, particularly concerning the resilience of international supply chains and the geopolitical implications of economic interdependencies
- Almost 80 percent of all EU imports take place under the most favored nation (MFN) tariff regime. This number illustrates the central importance of the WTO and the multilateral trading system for the EU's external trade
- The EU is one of the world leaders in terms of the number of trade agreements: according to the WTO, the EU has 45 trade agreements with 77 countries, which (excluding the EU) account for over 21 percent of the world's GDP. However, recent negotiation and ratification processes have often proved lengthy
- The event of Brexit and the resulting increase in bureaucratic hurdles illustrate that the extent of economic integration among EU member states is neither self-evident nor irreversible
- Instead of aiming for a Europeanization of supply chains and an increase in protectionism, the goal of European trade policy should be the systematic identification and management of critical dependencies. The diversification of trade relations is essential in this context

In the spring of 2021, the European Commission released a new version of its trade policy review (European Commission 2021). At the heart of these guidelines is the concept of “open strategic autonomy” as the goal of European trade policy. At first glance, this goal appears to present conflicting interests that are not easily reconcilable: on the one hand, trade openness to international trade may imply a partial renunciation of economic autonomy; on the other hand, achieving strategic autonomy from autocratic regimes like Russia or China might only be achieved by scaling back trade relations.

Undoubtedly, the European Union faces a delicate balancing act while implementing its new trade policy agenda amid challenging global economic and geopolitical circumstances. In this essay, we assess the current state of Europe's trade policy. We review the EU's trade policy trajectory up to now, situating it within

* This article is an updated version of our previous publication Baur, A. and L. Flach (2022), “Ökonomische Resilienz durch mehr Protektionismus? Die Handelspolitik der Europäischen Union”, *Aus Politik und Zeitgeschichte* 72(42), 41-46.

the international context. Moreover, we examine the new challenges that European trade policy is facing, particularly concerning the resilience of international supply chains and the geopolitical implications of economic interdependencies.

IMPORTANCE OF THE MULTILATERAL TRADING SYSTEM FOR THE EU

How open is the EU to international trade? A good starting point to answer this question is EU customs policy. EU member states have formed a customs union with a common external tariff against imports from non-EU countries since 1968. As can be seen in Figure 1, around 70 percent of EU imports did not incur a tariff in 2022. This is largely because the EU has set the MFN tariff rate at zero for many products. The MFN tariff is the rate of duty that the EU applies to all other World Trade Organization (WTO) member countries in accordance with the most favored nation (MFN) principle. Overall, almost 80 percent of all EU imports take place under such MFN conditions. This applies to trade flows with major economies such as China, the US, and India, which illustrates the continued central importance of the multilateral trading system for the EU's external trade.

WTO DEADLOCK: IMBALANCE BETWEEN MEMBER STATES

However, since the conclusion of the Uruguay Round and the establishment of the WTO in 1995, there has been no significant multilateral reduction in MFN tariffs. One of the reasons for the stalemate in negotiations is the fact that tariff rates in advanced economies are already very low, while tariffs in many developing countries are still relatively high. While the average applied MFN tariff rate is 13.3 percent in Argentina, 18.1 percent in India, and 11.1 percent in Brazil, it is only 3.3 percent in the US, 3.9 percent in Japan, and 5.1 percent in the EU.¹ The large tariff differential complicates negotiations at the multilateral level, as industrialized countries have less leeway to reduce their own tariffs when negotiating tariff reductions with emerging economies.

A closer look at the applied tariffs, however, also reveals considerable heterogeneity between individual product groups for the EU. The high tariffs applied in the agricultural sector are particularly striking. MFN

¹ See WTO/ITC/UNCTAD (2023). Figures refer to simple, non-trade-weighted averages for 2022.

tariffs applied to agricultural products are on average 11.4 percent, while the average import tariffs for industrial goods are around 4.1 percent.² Particularly high tariffs are imposed on imports of dairy products (38.4 percent), sugars and confectionery (24.6 percent), and beverages and tobacco (19.0 percent). By contrast, for product groups such as machinery or minerals and metals, the average MFN tariff rate applied is around 2 percent. These figures point to a strongly protectionist EU trade policy in the agricultural sector and show that the EU could take further steps toward trade liberalization on its import tariffs.

Moreover, imbalances among WTO members go beyond tariffs. For example, subsidies and export-related measures account for over 60 percent of all protectionist measures imposed worldwide (Evenett 2019) and are a growing cause of trade tensions. In principle, subsidies can have an employment-stabilizing effect, for example in times of crisis. However, they often lead to so-called “market-share stealing” strategies, which make market access more difficult for other companies. To avoid market distortions caused by state subsidies, international cooperation is fundamentally important: if such efforts are not coordinated internationally, the subsidized sectors could be the main beneficiaries, as companies can use this as an opportunity for “subsidy shopping” in different countries: companies pick the highest state subsidy offer, with high costs for the countries involved. The EU has also recently adopted a new Foreign Subsidies Regulation (FSR) to be able to take unilateral action against distortions in the EU’s internal market caused by foreign subsidies. An important question in this context is which specific instruments and rules are necessary to create a fair competitive environment without promoting protectionist particular interests. The same question also applies to other trade defense instruments, such as anti-dumping measures. These examples highlight the importance of multilateral cooperation within the WTO system that goes far beyond tariffs and encompasses a multi-layered agenda.

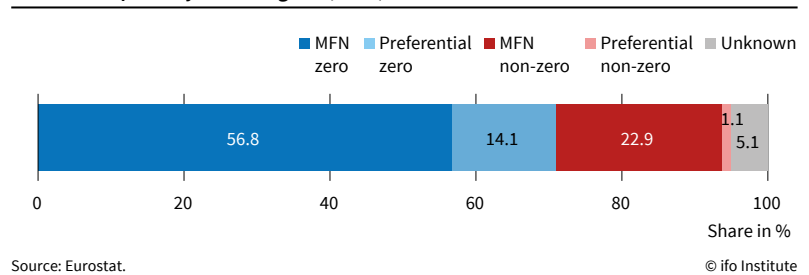
THE EU AS A PIONEER IN TRADE AGREEMENTS

An important development in trade policy since the fall of the Iron Curtain has been the rapid growth of trade agreements. In the first ten years after the establishment of the WTO alone, the number of trade agreements more than tripled from 58 to 188 (Maggi 2014). This number has continued to rise in recent years, with for example the Regional Comprehensive Economic Partnership (RCEP), currently the largest free trade area in the world, signed in November 2020.³

² Op. cit.

³ RCEP, in which the ten ASEAN countries, China, Japan, South Korea, as well as Australia and New Zealand participate, comprises 28 percent of world economic output, 28 percent of world trade, and 29 percent of the world population (Flach et al. 2021).

Figure 1
Extra-EU Imports by Tariff Regime (2022)



The EU is one of the world leaders in terms of the number of trade agreements signed: according to the WTO, the EU has ratified 45 trade agreements with 77 countries, which (excluding the EU) account for over 21 percent of the world’s gross domestic product (GDP).⁴ Among them are several small countries and island states that have signed trade agreements with the EU in the last ten years, such as Botswana, El Salvador, and St. Lucia, but also larger economies, such as Canada, Singapore, South Korea, Vietnam, and the United Kingdom after the event of Brexit. Modern trade agreements have become much more comprehensive over time, as they include not only customs agreements but also other regulations such as the harmonization of product safety and hygiene standards, approval procedures, the recognition of geographical designations of origin, and access to local services markets. Far-reaching trade agreements play a particularly central role for trade in services by reducing non-tariff trade barriers. Economic studies show that they have a greater impact on trade in services than on trade in goods (Dhingra et al. 2023). However, the conclusion of deeper trade agreements is often accompanied by an increased use of unilateral trade protection instruments, which in turn leads to an increase in trade barriers. For example, technical barriers to trade and antidumping measures are often used for classic protectionist motives (Vandenbussche and Zanardi 2008; Nes and Schaefer 2020).

Despite the EU’s success in the number of FTAs by international standards, however, the EU’s recent negotiation and ratification processes have often proved lengthy, as exemplified by the negotiations on the EU-Mercosur Association Agreement or the EU-West Africa Economic Partnership Agreement. At the same time, in other world regions, new economic link-

⁴ Own calculations based on European Commission and WTO data on trade agreements as well as World Bank data on GDP.



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ages are emerging at a rapid pace: one example is the RCEP agreement, which is not deep in terms of trade policy but will nevertheless increase economic integration within the Asia-Pacific region (Flach and Teti 2020). This should be a warning signal for the EU to take a more pragmatic approach to negotiations on free trade agreements and to strive for swift conclusions in current negotiations.

TRADE AGREEMENTS AND RULES OF ORIGIN

Particularly in comparison with multilateral trade liberalization, free trade agreements, despite their name, are not unreservedly conducive to trade. First, bilateral trade agreements benefit mainly the signatory countries, whereas other WTO member states are left comparatively worse off, as their relative market access deteriorates as a result. Due to lower trade costs within the agreement, trade shifts in favor of the respective contracting parties. Second, the actual utilization of trade agreements by firms can also be low, because it is often associated with high bureaucratic hurdles, which are an obstacle in particular for small and medium-sized enterprises (SMEs). Rules of origin are one example. If the preferential tariff rates of a trade agreement are to be used, exporters must usually provide rules of origin that prove domestic production. This is to exclude the possibility that goods previously imported from third countries also benefit from the advantages of a trade agreement. Each trade agreement has its own rules of origin that must be followed in order to obtain preferential market access. Because of the costs associated with rules of origin, they make trade agreements more difficult to use and thus reduce their trade-liberalizing character.

The Trade and Cooperation Agreement (TCA), which was signed between the EU and the UK after Brexit and came into force in January 2021, illustrates the bureaucratic hurdles that rules of origin can create. Under the TCA, all tariffs on trade in goods were basically set at zero percent. However, this preferential market access is conditional on traded products meeting rules of origin. Such rules make market access more difficult, especially for SMEs, because rules of origin usually involve fixed costs that can be potentially prohibitive for SMEs. However, the bureaucratic burden also increases significantly for large EU companies integrated into cross-border supply chains with the UK: for example, if a company in the UK wants to export goods to the EU whose production used inputs from third countries, it is possible that this product will no longer comply with the relevant rules of origin. Instead of zero tariffs, positive MFN tariffs would then be due, if applicable. Hence, despite the far-reaching trade liberalization under the TCA in the form of zero tariffs, considerable trade barriers have been created in the wake of Brexit, which negatively affect trade between the EU and the UK. The fact that positive

MFN tariffs were paid on around 16 percent of imports from the UK in 2021 (Eurostat 2022) illustrates their significance.

TRADE INTEGRATION INTERNALLY AND EXTERNALLY

Brexit marks a turning point in the European integration process, demonstrating that the level of economic integration among EU member states is neither irreversible nor should be taken for granted. The creation of the European single market, which guarantees the free movement of goods, services, capital, and people, has dramatically lowered national trade barriers and contributed to enormous economic interdependencies among EU member states. For example, Head and Mayer (2021) show that the level of EU economic integration in subsectors such as trade in goods is comparable to integration among the 50 US states. Based on a gravity model, they also find empirical evidence that the reduction of trade costs within the EU has been accompanied by a parallel reduction of trade barriers vis-à-vis countries outside the EU.

Several statistical indicators also show that the EU's economic linkages with the global economy have continued to grow in recent years. Even if trade flows between individual EU member states are excluded, the EU is the world's largest exporter as well as importer of goods and services, ahead of the US and China. The importance of foreign markets has increased almost continuously for the EU as a whole: whereas in 1995 around 10 percent of the total value added of the current 27 EU member states depended on demand outside the EU27, this figure rose steadily to 17 percent in 2019 (OECD 2022). For the US and China, on the other hand, the importance of foreign demand is much lower, with a share of 9.2 percent and 13.9 percent, respectively, and has even been declining in recent years. Similarly, imported intermediate inputs play an important role for the European economy. For example, 16.5 percent of EU exports alone are based on value added from countries outside the EU.

MORE RESILIENT SUPPLY CHAINS THROUGH PROTECTIONIST POLICIES?

The EU's trade policy is currently under greater scrutiny than ever before. The massive supply-chain and transportation disruptions during the Covid-19 pandemic have raised doubts about the reliability of international production networks. Moreover, the war against the Ukraine and geoeconomic uncertainty have come increasingly into the public focus. Given this context, the calls for nationalization or Europeanization of supply chains and the economic decoupling from autocratic regimes have gained momentum. Consequently, the question arises whether the EU should pursue a more protectionist policy to en-

hance supply chain resilience and mitigate geo-economic vulnerabilities.

In principle, a large-scale Europeanization of supply chains would come at the cost of considerable economic losses. A simulation study by the ifo Institute shows that shifting value chains back to the EU, Turkey, and North Africa (nearshoring) would lead to considerable long-term decline in the EU's gross domestic product (Dorn et al. 2020).

At the same time, there is doubt about the extent to which a widespread nationalization of supply chains back to the EU would result in more resilient supply chains. From an economic standpoint, international trade works rather as an insurance against country-specific shocks, and hence it allows companies and economies to reduce local risks. If supply disruptions occur at home or abroad, well-diversified trade relations with a variety of countries and regions make it possible to cushion them at least to some extent. A large-scale nearshoring strategy, on the other hand, could lead to greater regional concentration of supply chain risks. For example, several economic studies using various shock scenarios show that economic stability does in general not increase with reshoring and nearshoring, but rather decreases, as the diversification of risks is more limited.⁵

POLICY OUTLOOK

It is questionable to what extent a more protectionist EU policy would lead to a more resilient European economy. A central objective of European trade policy should be to identify foreign trade dependencies and systematically manage the economic and political risks associated with it.

The existence of supply chain risks has been demonstrated not least by the coronavirus pandemic and the economic consequences of the Russian invasion of Ukraine. Critical economic dependencies from China have also recently come increasingly into the public spotlight. For example, a study by the European Commission (2020) shows that around 65 percent of all raw materials required for the production of electric motors are sourced from China. In order to identify such critical economic dependencies at an early stage and increase supply chain transparency, further political efforts are needed, as is an improved exchange of information between the government and the private sector. For example, supply chain stress tests for critical goods organized at the European level could contribute to the identification of potential weaknesses and strategic vulnerabilities in European foreign trade (Simchi-Levi and Simchi-Levi 2020).

The diversification of trade relations is essential for the reduction of critical dependencies and for

the design of resilient supply chains. Particularly in this area, European trade policy plays a crucial role. As shown at the beginning, a large part of European trade is still conducted within the framework of the most-favored-nation principle of the WTO. Despite the political hurdles, the EU should continue to work hard to support an ambitious WTO reform, as a strong multilateral trade order provides the best conditions for well-diversified external economic relations. In addition, the objective of EU trade policy should revolve around advancing the current network of regional trade agreements, thereby improving access for European firms to foreign markets and strengthening bilateral cooperation with partner countries around the world. Here, both the negotiation processes and the ratification and implementation of trade agreements must be significantly accelerated in the future.

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⁵ That the negative impact of the pandemic on the global economy would have been even greater with nationalized supply chains than in a world with global supply chains is shown by Barthélemy et al. (2022). Another relevant simulation study is D'Aguanno et al. (2021).

Michael Christl, Silvia De Poli, Tine Hufkens, Andreas Peichl and Mattia Ricci

The Role of Fiscal Policy Measures in Mitigating the Effects of the Covid-19 Crisis in Germany

KEY MESSAGES

- We use a novel methodology for modeling the socio-economic impacts of economic crisis in Germany, and apply it to estimate the impact of the Covid-19 pandemic
- We estimate that German households lost more than 3 percent of their market income in 2020 due to the Covid-19 pandemic, with the effect being strongly regressive
- However, the fall in market income was largely offset by the tax-benefit system, which softened the reduction in disposable income to a more modest 0.5 percent
- Our study highlights the importance of short-time work and discretionary policy measures (the Covid-19 one-off child benefit and the increase in the tax allowance for single parents) in cushioning the impact of the Covid-19 crisis
- The strong income-stabilizing property of short-time work and discretionary policy measures for low-income earners has also helped overcome a strong reduction in household demand

The Covid-19 pandemic hit Germany hard in 2020. Driven by the need to limit close contact and the resulting strict lockdown measures, economic activity fell sharply. Despite Germany's well-known tradition of automatic stabilizers (including "short-time work," or *Kurzarbeit*), the impact on the labor market was severe. Registered unemployment rose by nearly 430,000 people, from about 2,266,000 to 2,695,000. In addition, the number of people on short-time work (STW) rose from about 145,000 in 2019 to 2,940,000 workers in 2020 – some 2.8 million. The resulting drop in GDP was almost as large as during the 2008/2009 financial crisis, making the Covid-19 crisis one of the most severe economic crises since World War II.

To counter the effects of the Covid-19 pandemic, the German government introduced several policy measures. First, it strengthened and expanded the existing STW scheme, which had already proved its worth during the 2008/2009 financial crisis. Second,

several discretionary policy measures (DPMs) were introduced. Both the STW and the DPMs were aimed at cushioning household income losses and preventing a sharp decline in private consumption. In this article, we focus on the most important (in monetary terms) measures introduced to counteract the impact of the Covid-19 pandemic on household income, namely the STW scheme, the Covid-19-related child bonus, and the tax allowance for single parents. In addition, several measures were introduced for the self-employed and firms, but these are not the focus of our analysis.

While the macroeconomic impact of the Covid-19 pandemic is well documented (almost in real time), evidence on the distributional impact on household income at the micro level is more limited. This is largely due to the lack of real-time microdata. In this article, we summarize the results of Christl et al. (2023), who address this issue by simulating the impact of Covid-19 on the labor market and household income in Germany in 2020, and make a first attempt to provide insights into how STW and DPMs mitigated the increase in income inequality and the at-risk-of-poverty rate (AROP) due to the Covid-19 pandemic.

METHODOLOGY

We use EUROMOD, the European Union's microsimulation model, to analyze the impact of the Covid-19 crisis on households in Germany. In particular, we focus on the role of STW and other DPMs introduced during the Covid-19 pandemic in absorbing the negative effects of the Covid-19 pandemic on labor income. Given that high-quality income data typically arrives with a significant lag, we use a novel nowcasting technique (Christl et al. 2021a) combined with detailed information on the labor market impact of the Covid-19 pandemic to update our microdata and simulate the Covid-19 shock. More specifically, we model labor market transitions using rich information from both administrative data on the use of the STW program from the German Federal Employment Agency and survey data from the HOPP database of the Institute for Employment Research (IAB). This allows us to identify workers who moved into STW schemes and unemployment in 2020, and to control for worker characteristics when simulating labor market transitions in our microdata.

We then examine the impact of the Covid-19 pandemic and Covid-19-related policies on household income across the income distribution in Germany, and thus their impact on inequality and poverty at a time when survey data was not available. In addition, we estimate the income-cushioning effect of the Covid-19-related policies by estimating the income-stabilizing coefficient (ISC), following Dolls et al. (2012). The ISC measures what percentage of a shock to households' market income is absorbed by the tax-benefit system. For example, an ISC of 0.8 would imply that 80 percent of a shock to market income is absorbed by the tax-benefit system. The ISC can be broken down into its main components, including: (i) taxes (including social security contributions), (ii) unemployment benefits, (iii) STW, (iv) DPMs, and (v) other benefits (including pensions). This allows us to assess the cushioning effect of each policy instrument.

In order to assess the impact of the Covid-19 pandemic in general, but also the impact of the policies discussed above, we use microsimulation techniques to distinguish between three scenarios:

1. The baseline scenario (no Covid-19): a completely hypothetical scenario without Covid-19, based on the 2020 tax and benefit policies and excluding any new policies. No Covid-19-related labor market transitions (to unemployment or STW) are modeled.
2. The Covid-19 scenario: based on the 2020 tax and benefit policy, including the STW scheme and the emergency measures (DPMs) introduced in response to the pandemic. We update the microdata using the labor market transition to account for the labor market shock generated by the Covid-19 crisis.
3. The Covid-19 scenario without STW and DPMs: this counterfactual scenario simulates the Covid-19 shock by assuming that the STW program and DPMs were not in place in 2020. Thus, in this scenario we assume the same reduction in working hours as in the "Covid-19 scenario" above, but with workers transitioning to unemployment instead of going on STW. More specifically, it is assumed that an equivalent number of workers on STW, in full-time equivalent terms, move into unemployment instead.

POLICIES IN FOCUS

In this article, we focus on three main household policies that were in place in Germany during the Covid-19 pandemic, namely the STW schemes, the child bonus, and the tax allowance for single parents.

STW consists of a contributory benefit paid by the social security unemployment insurance. The benefit compensates employees for wage losses due to an involuntary reduction in working hours. All employees subject to social security contributions are entitled

to the benefit if the employer requests (and qualifies for) a reduction in working hours. The amount of the benefit is calculated on the basis of the difference in net earnings before and after the reduction in working hours. Specifically, the amount is set at 60 percent of the difference in net earnings for individuals without children and 67 percent for individuals with children. Importantly, the pre-pandemic system of STW was further expanded at the onset of the pandemic, both in terms of access and monthly rates.

The Covid-19-related child bonus is a one-time payment to support families with children. The same eligibility rules apply as for the standard child benefit in Germany. In line with the standard child benefit, the age limit is extended to 24 years for children still in tertiary education and there is a limit on the number of hours the child can work. However, unlike the standard child benefit, the child bonus is not deducted from means-tested benefits. The parents of the eligible child receive EUR 300 per child. As discussed by Beznoska et al. (2020), this instrument is particularly relevant for low-income families.

The tax allowance for single parents already existed before Covid-19, but was increased in 2020 and 2021. Specifically, the allowance was increased from EUR 1,908 per year in 2019 to EUR 4,008 per year in 2020 and 2021. The aim of this policy is to compensate single parents for the higher cost of living during the Covid-19 pandemic.

RESULTS

The Buffering Effect of STW and DPMs

In this section, we analyze the impact of the Covid-19 pandemic on German household income and examine the role of short-time work (STW) and discretion-



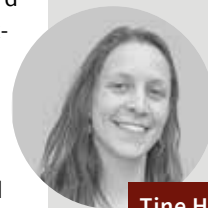
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ary policy measures (DPMs) in mitigating the effects of the pandemic. To measure the impact, we compare the Covid-19 scenarios with a “no Covid-19” scenario, which assumes no DPMs and no labor market shock.

Figure 1 shows the percentage changes in market income and disposable income under the Covid-19 scenario compared to the “no Covid-19” scenario. The crisis led to a significant reduction in market income across the income distribution, with an overall decrease of 3 percent. This reduction was regressive, hitting lower-income households harder than high-

er-income ones. However, when taxes and benefits are taken into account, the impact on disposable income is mitigated, with an average reduction of 0.5 percent. Nevertheless, the regressive effect is only largely reversed.

We then examine the contribution of STW and DPMs in cushioning the impact of Covid-19 on household income. To do so, we construct a counterfactual scenario without these policies and compare it to the Covid-19 scenario with these policies in place.

Figure 2 shows the impact of the Covid-19 pandemic on market income. We observe that its overall reduction is similar in both scenarios. This result is expected, since we assume the same reduction in working hours. However, in the absence of STW and DPMs, the income loss is much higher in the lowest deciles of the distribution. This is because, without STW programs, the same reduction in hours is concentrated among fewer individuals who become fully unemployed (i.e., workers who are laid off cannot have their hours reduced only partially). These individuals are mostly concentrated in the bottom deciles of the distribution.

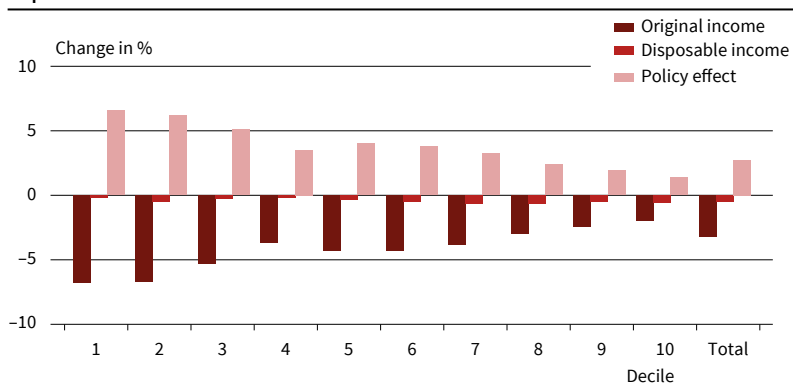
Figure 3 shows the impact on disposable income, taking into account the effect of the tax-benefit system. With the Covid-19 policies in place, the loss of disposable income is much smaller and also better distributed, to the benefit of lower-income households. The tax-benefit system largely offsets the impact of Covid-19 on households, especially when STW and DPMs are taken into account, effectively reversing the regressive impact by cushioning the income of poorer households. Given this strong countervailing effect of the tax-benefit system on poor households, it is not surprising that we also find that the policies counteract the expected increase in inequality and AROP in 2020 due to the Covid-19 pandemic.

Income Stabilization during the Covid-19 Pandemic

Having examined the role of STW and DPMs in mitigating the effects of the Covid-19 pandemic, we now examine the contribution of the German tax-benefit system to stabilizing household income. We calculate the income stabilization coefficient (ISC) for our Covid-19 scenarios with and without STW and DPMs. The ISC allows us to assess the effectiveness of the tax-benefit system and the DPMs as automatic stabilizers.

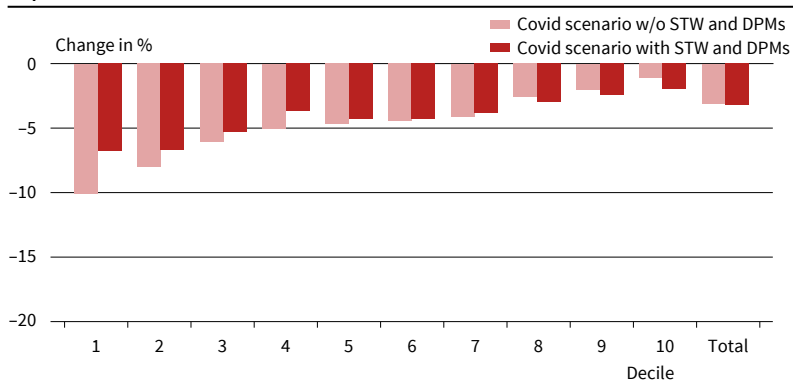
In Figure 3, we analyze the income stabilization capacity of the German tax-benefit system with and without STW and DPMs. With these measures in place (Figure 4), the tax-benefit system absorbs about 85 percent of the income shock caused by the Covid-19 crisis in 2020. This means that a EUR 100 loss in market income resulted in only a EUR 15 loss in disposable income. Income stabilization was stronger for low-income earners, with the tax-benefit system providing more protection to poorer households than

Figure 1
Impact of the Covid-19 Crisis on Household Income



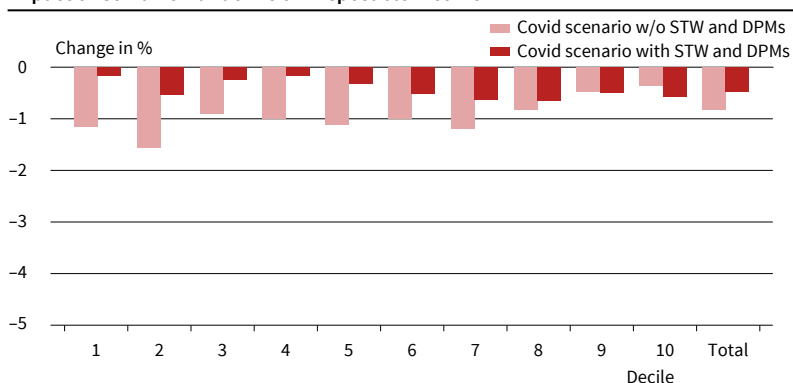
Source: Authors' calculations. © ifo Institute

Figure 2
Impact of the Covid-19 Pandemic on Market Income



Source: Authors' calculations. © ifo Institute

Figure 3
Impact of Covid-19 Pandemic on Disposable Income



Source: Authors' calculations. © ifo Institute

to richer ones. For low-income households, this protection was largely driven by the STW and the DPMs, while for richer households, the progressive income tax played a more important role.

In contrast, in the hypothetical scenario without STW and DPMs (Figure 5), the income stabilization capacity is significantly reduced, especially for low-income earners. The ISC drops to about 69 percent for low-income earners, and for households in the middle of the income distribution, the stabilization effect drops below 80 percent. This is due to factors such as the discontinuous work history of some low-income individuals, which makes them ineligible for unemployment benefits. In addition, the absence of DPMs, in particular the Covid-19-related child benefit, and the relatively lower income stabilization provided by unemployment benefits compared to STW schemes contribute significantly to this effect.

Overall, our analysis suggests that income stabilizers were effective in cushioning the income loss caused by the Covid-19 pandemic in Germany in 2020, with STW and DPMs playing a crucial role for low-income earners.

POLICY CONCLUSION

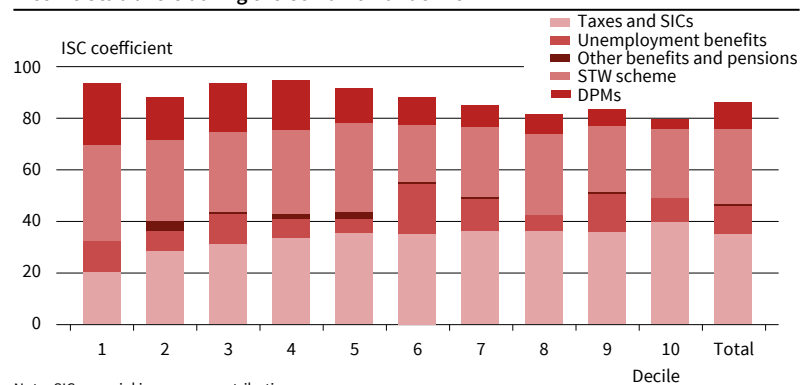
Our analysis shows that German households experienced a loss of over 3 percent of market income in 2020 due to the Covid-19 pandemic. The impact was regressive, with lower-income households being more affected, mainly because they are more likely to participate in STW schemes. However, the tax-benefit system effectively mitigated this loss, reducing the overall impact on disposable income to a more moderate 0.5 percent. Specifically, the German tax-benefit system, together with the DPMs introduced in response to the crisis, absorbed about 85 percent of the income shock, providing a stronger stabilization for low-income earners.

Our study highlights the importance of the STW and DPMs, especially the Covid-19 one-time child benefit and the increased tax allowance for single parents, in cushioning the impact of the Covid-19 pandemic. These policies play a crucial role in stabilizing the incomes of low-income earners, helping to counteract the expected increase in inequality and at-risk-of-poverty rates in 2020. The income-stabilizing properties of STW and DPMs for low-income earners may also help mitigate a sharp decline in household demand, as liquidity-constrained households are typically more prevalent in the lower part of the income distribution.

Comparing our results with similar studies in other countries, we find that discretionary policy measures are slightly less effective in cushioning household income in Germany than in Austria (Christl et al. 2021b), where a similar approach estimated an ISC of 87 percent. The results differ significantly along the income distribution, with Austria providing more

Figure 4

Income Stabilizers during the Covid-19 Pandemic



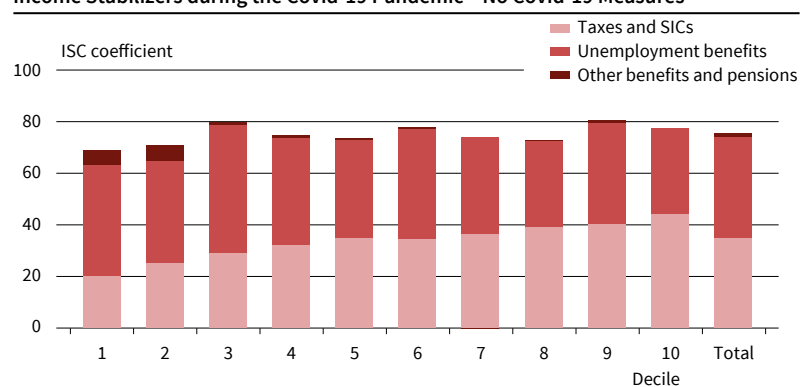
Note: SICs = social insurance contributions.

Source: Authors' calculations.

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Figure 5

Income Stabilizers during the Covid-19 Pandemic – No Covid-19 Measures



Note: SICs = social insurance contributions.

Source: Authors' calculations.

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protection to low-income earners and less protection to high-income earners. Moreover, compared to Spain, Belgium, the United Kingdom, and Italy (Cantó et al. 2021), only Belgium shows a similar protection of households against income loss. The case of Germany highlights the importance of having strong income stabilizers (e.g., STW) in place to mitigate income losses during macroeconomic crises.

Our work contributes to the literature on modeling the socio-economic impact of the Covid-19 pandemic by highlighting the importance of the extended labor market transition approach in estimating the impact of the crisis on highly important policy indicators. From a policy perspective, real-time data is crucial for assessing the impact of an economic crisis, especially with respect to income inequality. Our approach is also valuable for the analysis of future macroeconomic shocks, as it provides policymakers with early insights into the impact of a crisis and allows them to target policies to those who are most affected during an economic crisis.

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Yvonne Giesing, Felicitas Schikora and Geisi Shima

Emigration and Elections: The Role of Emigrants' Missing Votes

The number of migrants is continuously increasing worldwide. One in 30 people is a migrant, which amounts to 3.6 percent of the world's population (World Migration Report 2022). To put this into an economic perspective, data shows that remittances sent by emigrants have increased from USD 126 billion in 2000 to USD 702 billion in 2020 (World Bank 2021). That is a sixfold difference in 20 years, pertaining to a trend of rapid increases in international migration. Economic reasons are not the only factor leading to the decision to migrate. Up to 2019, over 6.1 million students chose to study abroad (UNESCO 2019), and, at the end of 2022, 108.4 million people worldwide were displaced because of conflict, persecution, violence, or human rights (UNHCR 2022). While the economic and social implications of migration for the country of origin have been explored, little attention has been given to its impact on election results.

How election results are influenced depends on the type of emigration. For instance, we could think about a country that has large outmigration of educated and young individuals. If these people have a tendency to vote for left-wing governments, and they are less likely to vote after they move abroad, these left-wing votes would be “missing.” That might make it more likely for a right-wing government to win elections. On the other hand, if low-skilled individuals who are more likely to vote for right-wing parties move out of a country, and their voting turnout is lower as they are abroad, these right-wing votes might be “missing.” While the absolute number of “missing” votes depends on the size of the diaspora, these results could be crucial for governments facing a close election race. One example is the Turkish President Recep Tayyip Erdoğan campaigning in Germany, where the dias-

pورا is largely on his side. Based on the diaspora's political preferences, governments may strategically opt for campaigns abroad as well as certain registration and voting methods to either facilitate or hinder overseas voting.

This report presents the case of Poland, a country with 12.5 percent of its population living abroad. Many of them still have Polish citizenship and thus the right to vote in Poland. It is particularly interesting that migrants' turnout rate in voting from abroad is 5 to 10 percent compared to 50 percent turnout of Polish citizens living in Poland. The reasons behind this disparity are multifaceted, including factors such as the time and effort costs of casting a vote, future plans of living in Poland or abroad, and levels of political engagement. Additionally, Polish citizens residing abroad represent a distinct group in terms of education and

KEY MESSAGES

- **Emigrants typically differ from the origin population in terms of age, education, and political preferences**
- **Emigrants are also voting less in their country of origin even if they have the right to vote**
- **As emigrants are not voting in their country of origin, their votes are missing**
- **This can influence elections if emigration is large, and elections are tight**
- **Policies facilitating voting for the diaspora can ensure better representation**



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age, leading to political preferences that are different from those voters left behind in Poland. Emigration from Poland has thus changed the structure of the voting population, potentially yielding significant effects on election outcomes. Notably, Poland has witnessed a shift in government leadership over the past few decades, transitioning from left-leaning in the early 2000s, to centrist in 2005, and ultimately

to the right-leaning Law and Justice (PiS) party ruling since 2015.

The main question this research answers is to what extent emigration has implications for the origin country's election outcomes. To have a significant effect on election outcomes, three main conditions should be met. First, emigrants should have distinct political preferences that differ from those left behind. Second, emigrants' turnout rates should be lower compared to their hypothetical turnout rates (e.g., if they had not migrated). Third, the group of emigrants should be large enough to make a difference. These three conditions are met in the case of Poland. Thus, the main conclusion of this research is that high emigration rates have increased voting for right-wing parties in Poland, as left-leaning votes have been "missing".

This policy report is based on a recently published academic paper by Giesing and Schikora (2023). Closely related to this paper are studies showing that emigration can affect economic outcomes in the country of origin. Fackler et al. (2020) highlight that emigration fosters knowledge transfers and innovation in the home country, while Rapoport et al. (2021) demonstrate that migrants disseminate cultural values and norms from their destination to their origin countries. Moreover, the role of family members abroad in political activism is highlighted by Paarlberg (2017). The most similar article to our report is the paper by Anelli and Peri (2017). It explores the "exit effect" in Italy, where emigration reduces the influence of liberal-minded voters on domestic politics. In contrast to their work, our study focuses on national parliamentary election outcomes and employs a different methodology. Moreover, the emigrants in our study are not driven by a recession, leading to differences in their self-selection compared to the previous research.

DATA

We utilize data from the administrative records of Statistics Poland, which include information on permanent immigrants and emigrants. The dataset covers the period from 1997 to 2019, aligning with the available election data. Analysis at the county level is made possible due to the granularity of the dataset, which also facilitates merging the data on votes per county. We classify political parties as left, right, or center, drawing from various political party classifications to ensure the robustness of our results. Socio-economic characteristics and attitudes are derived from the Life in Transition Survey (LiTS), a repeated cross-sectional survey run by the European Bank for Reconstruction and Development (EBRD). The combination of these datasets provides comprehensive information on emigrants, voting patterns, preferences, and demographic characteristics.

Emigration has increased strongly in Poland, particularly following its 2004 accession to the EU.

Figure 1
Emigration Flows across Polish Counties in 2006

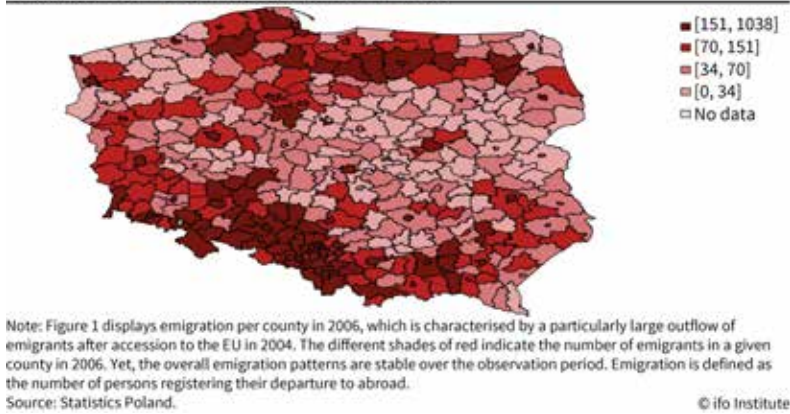


Figure 2
Vote Share for the Right across Counties in 2001

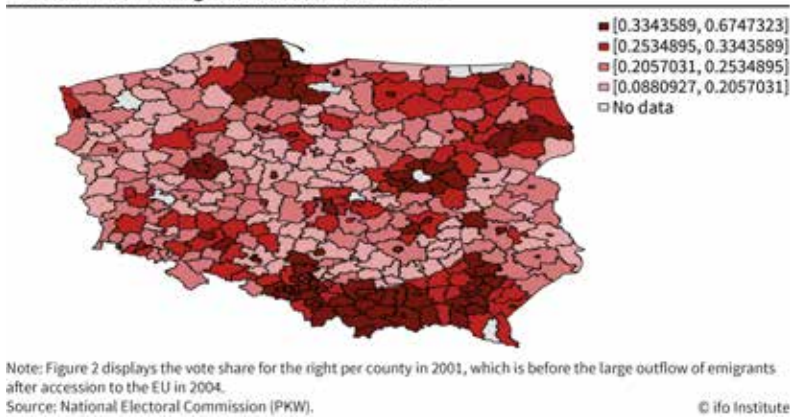
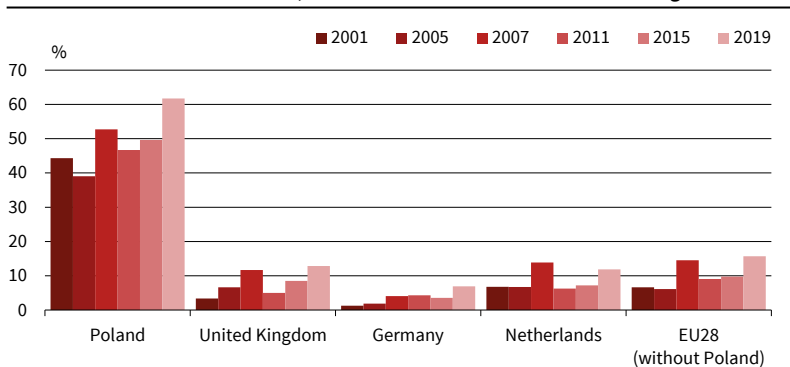


Figure 3
Turnout Rates of Polish Citizens, in Poland and from Polish Citizens Living Abroad



In 2004, an average of 50 emigrants per county were registered compared to 2006 with 124 emigrants per county. Figure 1 shows the map of the 380 counties in Poland and their migration flows in 2006. That year had high migration rates due to the Polish EU accession of 2004. However, the patterns observed here remain similar throughout the years. Darker shades of red indicate stronger emigration.

As expected, emigrants are a selected group of the overall Polish population. When comparing Polish citizens born and residing in Poland to individuals born in Poland and living in OECD countries, the latter are twice as likely to be highly educated and are also predominantly young adults (aged 25–34).

Regarding voting, the proportion of citizens casting a right-wing vote has increased from 17 percent in 2001 to about 50 percent in recent elections. Figure 2 shows the voting for the right-wing parties in 2001. Given these statistics, we plot the correlation of emigrant numbers to right-wing vote shares at the county level. The correlation is highly positive, further supporting our hypothesis. Also in line with our hypothesis is the turnout rate of Polish citizens abroad. While the turnout rate is about 50 percent in Poland, Polish citizens residing abroad have a rate of only about 5 to 10 percent. Figure 3 shows descriptive evidence of how emigrants are less likely to participate in elections compared to people residing in Poland. Given the propensity of highly educated individuals to participate in voting, coupled with the higher educational levels of Polish residents abroad, we deduce that Polish emigrants possess distinct voting preferences, and their absence from the electoral process leads to “missing” votes. For instance, in the 2019 Polish parliamentary election, 43.6 percent of Polish people in Poland voted for the right-wing “Law and Justice” party PiS, while only 24.9 percent of the diaspora voted for PiS.

EMPIRICAL ANALYSIS

Despite this evidence being suggestive, the observed correlation may be caused by a range of factors. To establish a causal connection between emigration rates and right-wing voting at home, we adopt an instrumental variable strategy. For the main specification, the difference in the share of votes for right-wing parties is regressed on the number of emigrants for all years preceding the election. Our main interest is this coefficient, which could be biased due to unobserved characteristics that affect both variables (such as economic, political, and demographic changes). An instrumental variable approach addresses these issues and provides a causal estimate of the effect of a 1 percent change in emigrants per parliamentary term on the changes in political results per county.

We instrument emigration in our setting with the distance from the county’s center to the closest bor-

der to a country with free labor mobility. The underlying premise is that counties near borders that are open for Polish workers experience higher emigration rates. The different timing of opening the borders to Polish workers due to the transitional provisions of the EU accession adds time variation to the instrument. For instance, a county initially closest to the open border with the Czech Republic (i.e., before 2011) may become closest to Germany after the latter opens its borders to Polish workers in 2011. Thus in 2011, there is a change in the way we instrument this county’s emigration. Distance to the closest airport is also used as an extension of the instrument. For this estimation method to give causal estimates, the instrument must be relevant and exogenous. To ensure relevance, we regress the emigration variable on the instrument. The results are negative and significant, meaning that the shorter the distance to a border, the higher the emigration.

To address concerns of endogeneity, we add regional-level controls such as information on employment, GDP, income, the share of female residents, sector structure, age, etc., and performed several validity checks. Thus, we conclude that our instrument can be used in the current setting.

RESULTS

Initially, we examine the share of voting for right-wing parties. In this article, we focus on reporting the causal results derived from the instrument described above. Results from Ordinary Least Squares (OLS) regressions are shown for comparisons. There is a substantial increase in right-wing voting with higher emigration: a 1 percent increase in the number of emigrants in a given county increases the share of right-wing votes by 0.249 percent (see Table 1). When using the left-wing vote shares as an outcome, the result runs in the other direction: a 1 percent increase in the number of migrants causes a 0.569 percent decrease in vote shares for the left-leaning parties. These results are a strong confirmation of our hypothesis.

The instrumental method we use here serves to solve several issues. First, the data may not be complete due to unofficial immigrants not being registered. Second, economic downturns could simultaneously drive emigration rates upward and suppress right-wing voting (as individuals seek job security offered by left-wing parties). Furthermore, if it is the voting share that causes emigration, we could reach the wrong conclusion. If such mechanisms are at play, the inclusion of distance to the closest open border as an instrument gives us the causal effect of emigration on right-wing voting.

To explore additional outcomes that align with the voting results, we examine peoples’ preferences for further European Union (EU) integration, cohesion, and an internal market. Employing the same instrumental variable estimation, we find weak evidence

Table 1
Effect of Emigration on the Share of Right-Wing and Left-Wing Votes

	(1) Share right-wing OLS b/se	(2) Share right-wing IV b/se	(3) Share left-wing OLS b/se	(4) Share left-wing IV b/se
Log emigration per county	0.019*** (0.004)	0.249** (0.126)	-0.050*** (0.010)	-0.569** (0.266)
State*Time FE	Yes	Yes	Yes	Yes
Regional covariates	Yes	Yes	Yes	Yes
Mean	0.635	0.635	0.202	0.202
N	2955	2955	2546	2546
N counties	380	380	380	380

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. The outcome variable in column 1 and 2 (column 3 and 4) is the share of right-wing (left-wing) votes per county and election year. Emigration is measured as the number of emigrants per county in logs. Standard errors are clustered on the county level and are displayed in parentheses. The number of observations drops for the share of votes to left-wing parties in columns 3 and 4, because no left-wing party reached the required 5 (8) percent threshold in the 2015 parliamentary elections. To control for county-level characteristics, we include the following covariates: registered unemployed persons, GDP per capita, per capita average income, share of female residents, percentage working in agricultural sector, share of respondents aged 15–29, aged 30–49, aged 50–64, graduates from tertiary migration, and net internal migration.
Source: Statistics PL and National Electoral Commission (PKW).

that the voters left behind in Poland favor further EU integration. While this may seem counterintuitive, since the people who favor further EU integration the most should be the ones who moved away, this finding can be attributed to numerous factors. First, the people left behind could still have a wish to move to the EU at a later point in time and thus be supportive of further EU integration (Bertoli and Ruysen 2018). Additionally, regions experiencing high permanent emigration are also highly likely to witness temporary emigration, whereby these temporary emigrants potentially support the EU to ensure ongoing job opportunities. Last, the people left behind benefit from remittances and increased wages (Dustmann et al. 2015).

Trust in political institutions serves as another alternative outcome that corroborates the voting results. The analysis here is simpler as preference data is available only in three cross-sections (2006, 2010, and 2016). Thus, we simply perform a regression of the stayers’ social preferences (such as trust in people, trust in government, etc.) on an indicator that equals one in counties with high emigration and zero otherwise. We find that the stayers’ trust in government authorities decreased in 2006 (when there was a left-wing government) and increased in 2016 (when there was a right-wing government). Considering that the voices “missing” from emigration are mostly supporting the left, these results are in line with our voting results. The effect of emigration on trust in people in general is insignificant, affirming that the observed changes are not general trust patterns, but rather specific to trust in government authorities. It is now clear to see that for the stayers, trust patterns follow voting patterns.

Our central hypothesis suggests that emigration affects voting shares through the channel of “missing votes” from the emigrants who left. An alternative mechanism could be that the voting behavior of those left behind changes due to their interaction with emigrants. To rule out this alternative and strengthen

our hypothesis, we perform the analysis before 2014 and for the period from 2014 to 2019. The reasoning goes as follows: before 2014, it was difficult to cast postal votes from abroad. We would expect the positive result on right-wing voting to be stronger in that period since more votes would be missing. This is indeed what the numbers confirm. Before 2014, a 1 percent increase in emigration increases right-wing voting by 0.269 percent, while afterward the number falls to 0.095. This confirms our central hypothesis.

To further reinforce the robustness of our results, we introduce additional tests. The findings remain consistent when incorporating time or state-level fixed effects and their interactions. Alternative ways of measuring the emigrant variable, such as the stock of emigrants since 1997 or the logarithm of the emigrant share, yield similar outcomes.

Additionally, using the distance to the nearest airport instead of the distance to the nearest border as an instrument aligns with previous specifications.

POLICY CONCLUSION

Voting is commonly considered a right, and democratic countries have long fought to facilitate voting for everyone despite characteristics that set them apart. Among the diverse groups of people, migrants stand out as they live outside the country of their birth. However, their inability to vote in either country could be a big challenge to democratic values. Migrants without acquired citizenship usually do not have the right to vote in their country of residence, and voting in their origin country may be difficult. This makes them disenfranchised from voting, and our research has shown that this can have implications for voting outcomes in the country of origin. These migrants play an especially important role when the election race is close. Instances like the Turkish president campaigning in Germany or the Mexican president Andrés Manuel López Obrador visiting major US cities show that governments of origin countries

have realized the potential of the diaspora to influence elections.

Whether emigrants should vote in their country of origin or their destination is a topic of controversy. Some argue that since emigrants no longer reside in their home country, voting outcomes there may not directly impact them, hence they should be excluded from voting. The counterargument could be that these emigrants may return to their origin, they may want to vote regarding their family's well-being, or they might not be allowed to vote in their destination country. Several European countries allow permanent residents to vote in their local elections (e.g., Germany), but forbid non-citizen residents to vote in general elections.

Another issue will be the type of effect emigrants have on voting outcomes. This report has shown that in the case of Poland, the large-scale emigration of young and educated voters causes a negative shift in left-wing voting. More generally, this effect will depend on the selection of migrants and their voting preferences. Based on this, countries might also want to apply different policies to steer the wheel in either direction.

While this research cannot tell in which country migrants should be allowed to vote, it can show that there are implications to either action. If a country wants to facilitate the voting of its emigrants so that their votes are no longer “missing”, some policy actions could be considered. First, voting will become easier if there are more voting stations abroad, if emigrants can vote by post, and if the registration to vote from abroad is not long and complicated. All these options serve to reduce the barriers to voting and reach higher turnout rates from citizens who reside abroad. In combination with postal and in-person voting, some countries also offer “proxy voting”, which enables a person of your choosing to cast your vote in the home country. More recently, the idea of “remote” or “electronic” voting is also being tested (e.g., in Estonia). This would entail a vote through the internet, mobile phone, or with a personal digital assistant. While the latter will be costly if it is not automated, an internet vote could be cheaper than any of the other options in terms of time and administrative burden.

On the other hand, host countries could decide that migrants should be allowed to vote in their destination country. Firstly, voting could be easily facilitated for permanent residents. It is most likely that permanent migrants plan to live in the host country long term, and any voting outcome affects them in a similar extent as citizens. Germany is an example of a country that allows permanent EU residents to vote in local elections. This type of policy could be adopted by more countries and for more types of elections.

Voting is perhaps the most important political right of a person. Whether the host or home country decides to facilitate voting for migrants, it is important that there be a clear policy in this regard. Some of the options are costly, especially in terms of cost per voter, but many countries are taking steps forward in this regard with options like electronic voting. This report has shown that in cases of a selected, large diaspora, the implications of these policies could be crucial.

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Jacqueline Adelowo and Moritz Bohland

It's in the Data – Improved Market Power Mitigation in Electricity Markets

KEY MESSAGES

- **Some electricity markets use automated mitigation procedures against market power abuse**
- **This requires marginal cost estimates, which have to be derived from observed auction bids**
- **Current estimation procedures can be improved by using available auction data more systematically**
- **Our redesign delivers more precise estimates and reduces the risk of strategic manipulation by firms**
- **Precise mitigation allows for welfare gains and transfers to buyers in a simulation**

Limited storage capacities, inflexible demand, and high market concentration render power markets especially prone to market power exertion. Existing counter strategies by market regulators include the implementation of price caps (Wilson 2000), stringent application of antitrust policies (Green 1996; Borenstein et al. 1999), and structural market design measures (Mansur 2007; Bushnell et al. 2008; Allaz and Vila 1993; de Frutos and Fabra 2012). In several US markets, system operators go one step further and monitor and mitigate market power in real time in the wholesale auction markets. To that end, system operators implement automated mitigation procedures (AMPs), i.e., algorithms to screen all supply offers, detect undue market power, and override affected offers.

In electricity markets, market power is typically measured by the difference between observed offers and underlying marginal (variable) cost of power production. Therefore, marginal cost estimates should be as accurate as possible to ensure unbiased measurement of market power (Bushnell et al. 2008) and welfare-improving mitigation thereof. However, cost components and power plant characteristics are private information and firms have an incentive to overstate costs. Instead, system operators thus proxy marginal cost of power plants from past offers of the respective plant, which leaves room for strategic manipulation by firms (Shawhan et al. 2011).

We test the accuracy of this best-practice benchmark approach against multiple suggested alterna-

tive methods.¹ For this purpose, we employ hourly micro-level bidding data from the Iberian day-ahead electricity market. First, we calculate bottom-up engineering estimates of marginal cost of power production to obtain a unit-specific measure for “true” marginal cost. In a second step, we test the benchmark approach based on past offers and compare the outcomes to the true marginal cost we derived in the first step. We then proceed by testing the accuracy of three alternative estimation methods and assess their performance as compared to the benchmark approach. Finally, we use the best-performing approach for a market mitigation simulation and perform a welfare analysis on the data.

The results of our empirical analysis reveal a low estimation accuracy of the currently applied benchmark approach. For the sample of gas and coal power plants that we analyze, we find a mean deviation of EUR 11.53/MWh between marginal cost estimates following the benchmark approach and true marginal cost. All suggested alternative approaches deliver more precise estimates, with the best approach achieving a mean deviation of only EUR 2.77/MWh. This approach not only delivers the most precise estimates, but by design also limits the scope for strategic manipulation of estimates by firms. Applying this approach to an AMP simulation on the data, we find sizeable overall welfare gains and welfare transfers from supplier to buyer surplus.

AUTOMATED MARKET POWER MITIGATION IN US MARKETS

Overview and Procedure

Multiple independent system operators (ISOs) have implemented automated mechanisms for the mitigation of market power exertion in wholesale auction markets. These ISOs include for instance the California Independent System Operator (CAISO), the Independent System Operator New England (ISO-NE), the New York Independent System Operator (NYISO), and the Midcontinent Independent System Operator (MISO), whose network also covers parts of Canada. They use market observations such as historical bids and prices to construct so-called reference levels. Reference lev-

¹ The underlying working paper (Adelowo and Bohland 2022) can be accessed here: <https://www.ifo.de/en/publications/2022/working-paper/redesigning-automated-market-power-mitigation-electricity-markets>.

els serve as unit-specific proxies for marginal cost and simulate a competitive offer bid.

The basic condition for mitigation is a market situation that implies potential for market power. This is defined by the ISOs as a structural situation where supply is (temporarily) structurally constrained, e.g., in cases of inelastic excess demand or behind a transmission congestion. If this structural test fails, supply bids are tested against a conduct threshold in order to identify actual exercise of market power. This conduct threshold is usually defined as exceeding a unit's reference level by a certain margin (MISO 2019; ISO-NE 2020; NYISO 2020). However, to avoid excessive intervention, the bids are then tried against an impact test, which tests for the consequential price impact of the problematic bids. If a certain price impact is exceeded, automated mitigation takes place by overriding the respective bids by the unit-specific reference level.

Reference Levels

Our analysis focuses on the estimation of reference levels, which are crucial for efficient mitigation. The method most commonly applied by ISOs uses previously accepted bids from the past 90 days as a basis for a mean or median calculation and adjusts this for fuel price changes (MISO 2019; ISO-NE 2020; NYISO 2020).

Some ISOs impose additional conditions that narrow down the scope of relevant offers to certain periods or hours (e.g., excluding weekends), which reveals a lack of consistency in the definition of which categories of hourly bids are most appropriate as a basis for reference level calculation. The different approaches among the ISOs generally imply differing calculation results.

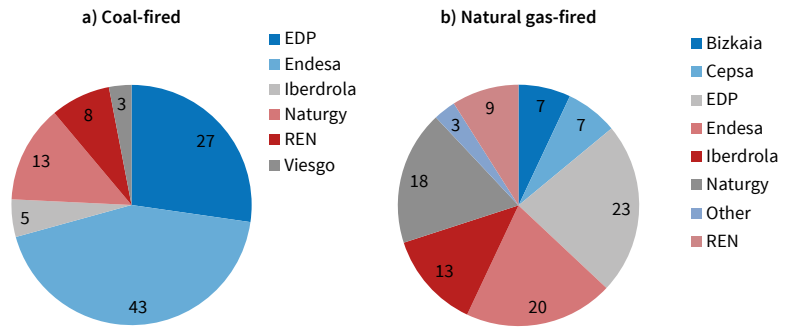
Further, the current approach bears risks of principal-agent problems arising from hidden information. Shawhan et al. (2011) find evidence in an experimental study that, in case of sufficiently high market power, bidders have an incentive to strategically raise their bids incrementally during unmitigated periods and thus manipulate the calculation basis for reference levels – so-called reference creep. Currently, this issue is addressed in none of the analyzed ISO tariffs; consequently, there are no measures in place to detect or account for reference creep.

STUDY SETTING

Market Environment

We carry out our study in the Iberian electricity market, the fully integrated and joint administrative market of the geographical regions of Spain and Portugal. Our study concentrates on the market's day-ahead trading, which in 2017

Figure 1
Distribution of Fossil Power Generation across Firms



Note: Numbers in %. Data from 5th of September 2017 to 10th of December 2017. Source: Authors' calculation.

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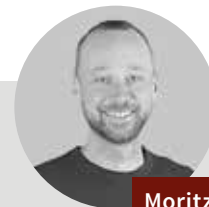
(year of study) accounted for more than 73 percent of the total demand traded. It is managed by the nominated electricity market operator called Operador del Mercado Ibérico de Energía (OMIE).

On the day-ahead market, wholesale agents submit supply and demand (purchase) bids on electricity transactions for the following day. The daily scheduling horizon consists of 24-hour periods, which are all auctioned in a single session. The maximum possible bid price is regulated to EUR 180.30/MWh (OMIE 2015). Bids generally consist of a price and an amount of power for each scheduling period. OMIE then uses a common European algorithm that sorts all demand bids in order of descending price and all supply bids in order of ascending price for each scheduling hour. The intersection of these two resulting stepwise curves sets the uniform market clearing price (OMIE 2015). The day-ahead market is characterized by the presence of a few large players that dominate the market. Roughly two-thirds of generation can be accounted for by only five company groups that are also vertically integrated, i.e., also act as electricity resellers and retailers (Comisión Nacional de los Mercados y la Competencia 2019). Fossil fuel production, which is at the center of our research, is even more concentrated. Only seven companies accounted for 97 percent of natural gas-fired and 100 percent coal-fired generation in our sample period. Hence, market power concerns are well warranted in this market.



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Micro-level Data

The centerpiece of our data set stems from the Iberian market operator OMIE and comprises all hourly supply and demand side bids in the Iberian day-ahead market. Our analysis focuses on gas and coal power generation in an exemplary week in December 2017. As we need input data that stretches back 90 days, our sample includes all hourly bids from September onward and extends over a period of roughly three months. We focus on gas and coal-fired generation as these technologies are often the price-setting bids in the market and have distinct marginal cost.²

Our bottom-up calculation of marginal cost considers individual plant efficiencies and includes fuel costs, cost for carbon emissions, variable O&M costs (Global Energy Observatory 2018; Bloomberg 2019a and 2019b; MIBGAS 2020; Comisión Nacional de Energía 2013; EDP 2018; IEA/NEA 2015; United Nations 2015), as well as all relevant additional taxes and levies (Ley 15/2012 Título I, Título III; Decreto-Lei n.º 74/2013 Artigo 1.º). Generally, marginal cost of coal power plants is subject to less volatility than marginal cost of natural gas-fired plants, which is attributed to the higher volatility of natural gas prices as compared to hard coal prices.

Because part of our analysis is based on company behavior, we account for the company ownership structures behind each plant.

EXISTING AND NOVEL WAYS TO CALCULATE REFERENCE LEVELS

The NYISO Benchmark

To assess the relative performance of our proposed calculation approaches, we first define a best-practice benchmark procedure. To that end, we choose the NYISO method of calculating reference levels of plants' marginal cost, because compared to other ISOs the NYISO provides relatively more information on the composition of the calculation basis (i.e., the set of historical bids that is employed for the estimation of reference levels).

We calculate daily reference levels of fossil plants' marginal cost, which should optimally reflect the bottom-up calculated marginal cost for the respective plant and day. In line with the NYISO procedure, we use historical bids of the plant within the last 90 days as the calculation basis. Within the 90-day period, variation in the underlying fuel costs and cost for carbon emissions is substantial. The reference level calculation therefore includes a daily input price adjustment (for fuel and emission allowances) (NYISO 2020; Fabra and Reguant 2014), which we also empirically control for. Reference levels are

² Unlike, say, hydro power units, whose bids represent the dynamic value of water, which is strongly driven by opportunity cost. For example, hydro plant operators bet on whether higher prices can be achieved if they empty their reservoirs at a later point in time.

then defined as the mean or median (whichever is lower) of all *adjusted* bids in competitive hours within the last 90 days.

Best-response Bidding

The second approach is based on Wolak (2003 and 2007), who derives underlying marginal cost directly from observed bids. We use his model of best-response pricing, which assumes, according to supply function equilibria (Klemperer and Meyer 1989), that a profit-maximizing firm will submit a set of bids that is ex post optimal given any demand shock. Assuming profit-maximizing behavior, we use a firm's hourly profit function to obtain a firm's marginal cost C' for observed residual demand RD , observed bids (optimal offer prices) p^* and its forward contracted quantity QC for any uncertain demand shock η – provided that the forward contracted quantity is known. This contracted quantity may be actual forward sales or resell obligations of vertically integrated retailers (Allaz and Vila 1993; Holmberg 2011; Kühn and Machado 2004; Mansur 2007; Bushnell et al. 2008):

$$(1) C'(RD(p^*, \eta)) = p^* - (QC - RD(p^*, \eta)) / RD'(p^*, \eta)$$

Last, we define daily reference levels for each plant as the mean of all calculated marginal cost estimates for the respective plant and day.

Accounting for Start-up Costs

We now present an extension of the benchmark NYISO method. By following the NYISO approach as presented above, we do not structurally incorporate additional cost components such as start-up costs. Yet, the bids in our calculation basis may partly be driven by the presence of start-up costs. Start-up costs occur when a thermal plant, which is not already running, has to start operation for the next scheduling hour. As our goal is to estimate short-run marginal cost without start-up costs, this is an undesired distortion. From bidding patterns, we can empirically infer which bids are not driven by start-up costs and include only those in the calculation base. Apart from this modification, we use the same calculation basis as in the NYISO benchmark approach and likewise account for changes in input prices.

Clustering

In our final approach, we address several additional shortcomings of the NYISO method, namely the large dispersion of results across power plants,³ the missing calculation basis for a set of plants, and the potential occurrence of reference creep (i.e., strategic manipulation of the calculation base by firms). We tackle

³ This pertains to plants that had been recently inactive in the market, e.g., due to maintenance or to new generating units entering the market.

these problems by departing from the calculation of unit-specific reference levels. Instead, we apply a machine learning algorithm to cluster the 89 power plants in our sample with respect to their two main characteristics relevant for marginal cost, i.e., efficiency (serving also as a simultaneous distinction by fuel type) and size. We use these clusters and calculate reference levels analogously to our start-up cost procedure below, yet not for each power plant individually, but at the cluster level. The cluster reference level is then applicable to all units that fall in the cluster. We thereby solve the problem of large dispersion of estimation errors across plants and receive a more concentrated distribution of results. Moreover, we solve the problem of missing calculation bases for new units entering the market. They can now simply be assigned to one of the clusters.

For the purpose of AMPs, the main advantage of clustering the plants is the prevention, or at least complication, of reference creep. As long as reference levels for mitigation are merely based on the historical bids of a single power plant, strategically inflating these bids may prove to be beneficial for the firm. The incentives and ability to strategically alter the calculation basis decrease when the regulator shifts to a clustered approach. Firstly, strategic bidding would become more apparent as the clusters comprise plants of similar size and efficiency. Strong deviations from the mean bidding behavior of the plants within the cluster would be conspicuous and could hardly be justified. Secondly, plants within a cluster belong to a set of different firms as long as clusters are sufficiently large. Strategies to jointly perform targeted reference creep across peak and off-peak hours would require significant coordination among firms and are therefore less likely. The clustering approach thus solves and mitigates several elementary problems of the existing benchmark approach.

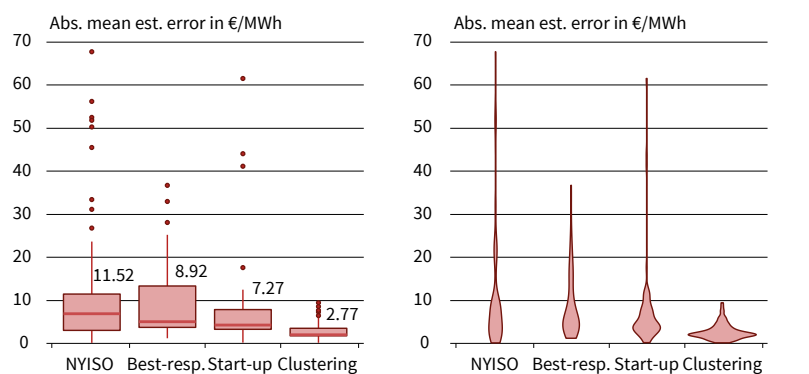
PERFORMANCE RESULTS

Estimation of Reference Levels

As described in detail above, we test the benchmark approach as well as three alternative approaches to calculate reference levels of marginal cost. We assess the performance of the approaches based on two quality criteria. First, we compare the mean absolute error between the derived reference levels and the true marginal cost. We deem absolute values of deviations from the underlying marginal cost to be better suited to assessing the performance of an approach than relative deviations. Ultimately, a regulator applying automated mitigation or a researcher who seeks to receive appropriate estimates of marginal cost is mainly interested in achieving precise estimation. Under- or overestimation are both undesired. The second criterion for the performance of each estimation method is the number of covered plants. The more we restrict the calculation basis within our empirical setting, the lower the number of plants for which we

Figure 2

Accuracy of Marginal Cost Estimation across Approaches in Absolute Terms



Source: Authors' calculation.

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obtain reference levels. To ensure stable operation of an AMP, reference levels should at best be available for all power plants in the market.

The benchmark NYISO approach performs worst in precision, exhibiting a mean absolute error across plants of EUR 11.52/MWh (see Figure 2) and covering 82 plants. The best-response approach delivers smaller mean error terms as well as less dispersed outcomes across the coverage of 85 plants. For the start-up approach, we obtain an even lower mean error. This, however, comes at the price of a reduced set of only 72 covered plants due to the restricted calculation basis.

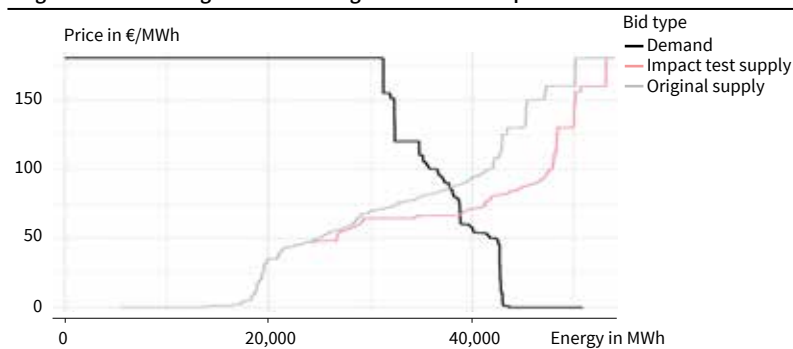
Our last approach overcomes this downside and delivers reference levels for all 89 fossil power plants in our sample. The clustering approach thus covers the broadest set of power plants, which is a crucial aspect for the potential application in AMPs. At the same time, it delivers reference levels that lead to the lowest mean error terms of just EUR 2.77/MWh.

Mitigation Simulation

We have now established the clustering approach as the best-performing way of calculating reference levels due to superiority in precision, coverage, and risk reduction of reference creep. In order to quantify welfare impacts that this mitigation mechanism would have on a previously unmitigated market like the Iberian day-ahead, we apply this approach in a simulation of automated mitigation. For our sample estimation week from December 4 to December 10, we apply the multi-step mitigation procedure laid out above.

Mitigation. For hours in which both the conduct test and impact tests fail, we perform actual bid mitigation of problematic bids to their respective reference levels. For mitigated hours, the new clearing price becomes the one calculated in the impact test, as illustrated in Figure 3. Out of the 168 hours in our weekly sample, mitigation occurs in 4 hours, which appears as a somewhat reasonable incidence of market interference.

Figure 3
Original and Resulting Market Clearing Curves of the Impact Test



Note: The impact test is for an exemplary hour: 2017-12-06 Hour 20. The respective clearing price is at the intersection with the demand curve. In mitigated hours, the supply curve and clearing price of the impact test become effective. Source: Authors' calculation. © ifo Institute

Welfare impacts. For the 4 mitigated hours, we find a notable, deadweight-loss-decreasing rise in market efficiency, amounting to 6.57 percent increased social welfare for these hours. This goes along with sizeable welfare transfers from supplier surplus to buyer surplus.

Welfare robustness. We have to consider, however, that the reference levels to which non-competitive bids are mitigated are only a proxy for marginal cost. This may cause the true supplier surplus and true welfare impacts, based on true marginal cost, to deviate. We therefore calculate the true welfare impacts as a robustness check based on our bottom-up engineering estimates of marginal cost. The resulting true social welfare increase is of similar, sizeable magnitude at 6.51 percent.

POLICY CONCLUSION

Our findings contribute to improved automated mitigation of market power in electricity markets. Automated mitigation procedures (AMPs) find wide application in US power markets and are designed for real-time detection and mitigation of market power abuse. AMPs rely on so-called reference levels, supposed to approximate marginal cost, to evaluate the competitiveness of a bid and to mitigate it by overriding. We design alternative approaches to derive reference levels from producers' supply offers. Improved accuracy of marginal cost estimates allows for both facilitated detection of market power as well as refined and more targeted mitigation. Refined mitigation protects buyers from excessive redistribution of rents to suppliers, but in a given mitigation setting likewise protects suppliers from excessive and unjust mitigation of competitive offers.

By employing a large set of micro-level data from the Iberian day-ahead market, we can show that current best practices of AMPs can be redesigned to substantially improve mean errors in marginal cost estimation from EUR 11.52/MWh to EUR 2.77/MWh. Our suggested redesign builds on already existing instruments, which enhances its implementability.

Our redesign not only delivers higher precision than existing approaches but also counteracts reference creep, i.e., the strategic manipulation of bids to evade mitigation. System operators should hence consider the adoption of this approach for AMP purposes. We finally apply our preferred redesign in a simulation setting of AMPs and find notable transfers from supplier to buyer surplus and overall welfare increases of roughly 6.5 percent. The surplus transfer to the buyer side can, if prices are passed through, allow for lower consumer retail prices.

Our study contributes to potential improvement of policies in electricity markets with market power issues, e.g., related to locational pricing, pivotal supply, and concentrated or integrated market structures. The EU, for instance, has signaled in light of REPowerEU initiatives that it will reassess locational pricing in the EU and “ensure an up-to-date and robust framework to protect against [market power] abuse [...] in periods of high prices and market volatility” (European Commission, Directorate-General for Energy 2022, 11). Any applied frameworks will have to make sure (1) that supply bids are fair and competitive, and (2) that underlying fluctuations in input prices are taken into account to not harm the profitability of producers. AMPs are a suitable tool to achieve both. The recent power crisis due to the Russo-Ukrainian war is just an extreme example of flexible fossil power generation being the marginal technology and causing high uniform clearing prices with high auction profits for cheap inframarginal producers (so-called windfall profits). This can potentially be exploited especially by firms who can strategically deploy a technology portfolio. These constellations will continue to occur in decarbonizing electricity systems, which will depend even more on flexible, quickly dispatchable generators at the price-setting margin to balance increasing shares of cheap, volatile renewables (if storage capacities are limited) – hence, raising the risk of market power abuse in uniform price auction markets. Graf et al. (2021) point out how this will heighten relevance of AMPs to work properly in increasingly decarbonized systems.

Our findings provide system operators with improved, easily implementable estimation techniques of power plants' marginal cost and with more accurate methods for monitoring and real-time mitigation of market power. Equipped with precise marginal cost estimates, system operators can apply automated mitigation more stringently, and achieve increased market efficiency and reduced costs for buyers. At the same time, improved accuracy benefits producers as the scope for unjust mitigation based on flawed marginal cost estimates is reduced. The main use cases for our approaches are automated procedures for market power mitigation in spot, balancing, and reserve electricity markets. Yet, they can likewise find application in other markets, e.g., for monitoring in renewable energy tenders or price and market power surveillance in rail and air traffic.

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