

Bruegel

# Research programme

2023-2024



RESEARCH PROGRAMME 2023-2024

31 August 2023

## Introduction

Bruegel's 2023-24 research programme is the result of discussions among Bruegel fellows and members since April 2023. It reflects three main factors.

First, the rise of new topics to the top of the policy agenda in 2022- including economic security, industrial policy, and policy reactions to the accelerated progress of artificial intelligence. In some cases, these are prompting policy actions (or reactions) without a full understanding of the consequences. Part of our agenda aims to address this.

Second, the fact that 2024 is an election year. This requires refocusing on the medium- and longer-term policy agenda. This research programme (particularly the proposed priority topics, see below) seeks to identify this agenda and address some key questions. These answers will be reflected in the **Memos to the new Commission**, a collection of short pieces which Bruegel prepares in every EU election year. Work on the memos will begin in late 2023 and is expected to be launched at the 2024 Bruegel Annual Meeting.

Third, a new approach to how Bruegel thinks about and organises its Research Programme. This establishes a two-tier structure: **priority projects** versus **additional topics**:

- **Priority projects** express a firm commitment. While no priority is immutable in response to unexpected events and demands on Bruegel research, these topics would be crowded out last. The criteria for selecting priority projects - which should be viewed as individually necessary, and collectively sufficient - include:
  - *Impact*: By undertaking research on a priority topic, Bruegel expects to have higher impact than through other topics.
  - *Time criticality*: It would be costly to delay this topic. Initial answers are needed in the next 12 months, if not sooner.
  - *Shelf life*: The question addressed is likely to be important for several years.
  - *Feasibility*: We must be comfortable that we will be able to deliver at least one major publication (normally several) addressing some of the key questions that motivate the project within the time horizon of the 2023-24 research programme. This aspect is critical: several high-impact topics considered did not make the final cut, because we were not confident that we could deliver on them in adequate depth this year, and/or because they would have excessively crowded out other topics.

We must also be comfortable that the *sum* of resource requirements of these projects is well within Bruegel's capacity (in some cases, leveraged by external research capacity and talent), leaving time for additional topics, and creating a buffer that protects the priority topics.

- **Additional topics** reflect bottom-up ideas by Bruegel fellows that are not already reflected in the priority topics (though they are sometimes in related areas). There is no commitment to deliver a project exactly as described, although there is a commitment to undertake research (additional to the priority topics) in the listed areas.

Table 1 lists the proposed priority topics, elaborated in the remainder of the programme (rows), and shows how they relate to Bruegel's traditional research areas (columns). Most

topics have an EU governance dimension and at least one policy dimension. All straddle at least two. The primary area is indicated in bold.

**Table 1. Priority projects and their policy dimensions**

| Priority project   | Macro-economic policy and governance | Banking & Capital Markets | Global economy and trade policy | Digital economy, labour markets, skills and health | Energy and climate policy |
|--|--------------------------------------|---------------------------|---------------------------------|--|---------------------------|
| 1. The design of the EU's proposed economic governance framework   | <b>yes</b>                           |                           |                                 |  | yes                       |
| 2. EU public goods and how to finance them                         | <b>yes</b>                           |                           | yes                             |  | yes                       |
| 3. Making a reality of Capital Markets Union                       | yes                                  | <b>yes</b>                |                                 |  |                           |
| 4. The consequences of Ukraine's accession to the EU               | yes                                  |                           | <b>yes</b>                      |  |                           |
| 5. Europe's economic security                                      | yes                                  |                           | <b>yes</b>                      |  |                           |
| 6. The Chinese economy and its influence on Europe                 |                                      |                           | <b>yes</b>                      |  | yes                       |
| 7. EU digital regulation: what has been achieved? What is missing? |                                      |                           | yes                             | <b>yes</b>   |                           |
| 8. The economic impact of AI                                       |                                      |                           | yes                             | <b>yes</b>   |                           |
| 9. EU climate and energy governance                                | yes                                  |                           | yes                             |  | <b>yes</b>                |
| 10. How to decarbonise the global south                            |                                      |                           | yes                             |  | <b>yes</b>                |
| 11. Electricity markets: beyond short-term patches                 | yes                                  |                           |                                 |  | <b>yes</b>                |

Reflecting the cross-cutting nature of most priority projects, these are motivated and discussed first (Section I). Section II of the paper briefly describes the additional topics, by research area.

Our programme will allow sufficient flexibility to meet new challenges as they arise. Like the policymakers we seek to support, we will try to react to new shocks nimbly and weigh in on new questions, as we seek to promote good economic policies for the sake of Europe and the world.

Jeromin Zettelmeyer, September 2023

## I. Priority projects

### 1. The design of the proposed EU fiscal governance framework

*Lead scholars: Zolt Darvas and Jeromin Zettelmeyer*

**Motivation.** In April 2023, the European Commission published a legislative proposal that aims to replace the preventive arm of the Stability and Growth Pact (SGP) and amend the corrective arm of the pact. Many aspects of this proposal, which is currently under review by the European Parliament and Council, are controversial. Much of the controversy focuses on the central role of the European Commission, its debt sustainability analysis (DSA), as well as design features of the proposal – including features whose quantitative implications are not fully understood, because a full understanding requires replicating the Commission’s methodology.

The purpose of this project is to undertake such a replication and use it to analyse the quantitative implications of the proposal and to evaluate the Commission’s DSA methodology.

**Key questions.** What are the fiscal adjustment requirements implied by the proposal? Which elements of the proposed methodology drive the adjustment requirements? How does the fiscal adjustment and debt reduction that would be required by the proposal compare to fiscal adjustment and debt reduction prescribed by the current fiscal rules? To what extent are these results sensitive to assumptions of the Commission’s DSA methodology that could be decided differently while keeping within the spirit of the proposal and methodological best practices? Based on the answers to these questions (1) what aspects of the proposal merit rethinking during the legislative process; (2) what aspects of the European Commission DSA methodology merit reflection and possibly revision before the proposal comes into effect?

**Modalities.** Expected to lead to at least two policy briefs. The first will present the quantitative implications of the April European Commission proposal, conditional on the Commission’s current DSA methodology, leading to recommendations to change certain elements of the proposal. The second will analyse methodology itself, leading to recommendations to change aspects of the methodology before it is put into practice in the context of the new framework. Work on the first policy brief is well advanced, with publication expected in September.

### 2. European public goods (and how to finance them)

*Lead scholars: Marco Buti, Grégory Claeys, Maria Demertzis, Pascal Saint-Amans, Armin Steinbach, André Sapir, Simone Tagliapietra and Jeromin Zettelmeyer.*

**Motivation.** Some categories of public spending (e.g., on climate action, defence, R&D, connectivity) could have strong intra-EU cross-border externalities. Providing these goods at the EU level could lead to substantial efficiency gains compared to providing them at the national level, and save fiscal resources. To the extent that they benefit firms, EU-level provision would avoid distorting competition.

**Key questions.** (1) What public goods should be provided at the EU rather than the national level; (2) What governance structures would be needed to ensure a good spending allocation, whether inside or outside of the EU budget and MFF structure? How could the EU budget be reoriented towards the supply of European public goods? (3) How should such goods be financed, given treaty and fiscal constraints? Is debt finance legally feasible? Is it desirable? Is there scope for expanding financial instruments that could tap private sector co-investment? What is the scope for taxation at the EU level?

**Modalities.** To be conducted by a team involving 5-6 Bruegel scholars, including one tax expert and one legal expert. Expected to lead to at least 2 policy briefs, backed by background papers.

### 3. Making a reality of EU Capital Markets Union

*Lead scholar: Nicolas Véron.*

**Motivation.** Capital Markets Union (CMU) has long been viewed as critical for EU competitiveness and risk sharing. But since its inception in 2014, the capital markets union has been long on rhetoric and short on achievements, notwithstanding significant efforts by expert groups and the European Commission.

**Key questions.** What has been achieved under the CMU banner so far? What are the key steps the CMU requires, and how should they be prioritised? Why have these steps not been taken in the past? What is the nature of the political and political economy obstacles to taking these steps and how could they be circumvented?

**Modalities.** This is a collaboration between Bruegel researchers, the German Council of Economic Experts (GCEE) and the French Conseil d'Analyse Economique (CAE). It is expected to lead to at least one major Bruegel policy brief by the Spring of 2024, as well as parallel publications by the GCEE and CAE.

### 4. Ukraine's accession to the EU: economic impact and implications for the EU accession process

*Lead scholars: Zsolt Darvas, Marek Dabrowski, Heather Grabbe and André Sapir.*

**Motivation.** Ukraine's accession will impact the EU both directly and through its impact on the accession process. This will likely overlap with Ukraine's reconstruction after the war, in which EU institutions and companies are expected to play pivotal roles. Ukraine's accession provides an opportunity to redesign the EU's accession framework so that it provides hope and motivates reform not only in Ukraine but in all EU-aspirant countries (including the Western Balkans). Moreover, the discussion on the prospects for future enlargements coincides with the 20th anniversary of the biggest enlargement in the EU's history, involving 10 central and eastern European countries, with potential lessons for the enlargement discussion today.

**Key questions.** (1) What impacts could Ukraine's EU accession have on current EU members in economic growth, demographics, migration, terms of trade, energy

security, decarbonisation, and EU budget realignment (for example, related to cohesion and agricultural allocations and budgetary contributions)? (2) How can Ukraine's post-war reconstruction needs be integrated with the accession process? Would the existing EU-Ukraine Association Agreement need to be modified? (3) What would be the impact of Ukraine's accession on other candidate countries and potential candidate countries, directly or through its consequences for the accession process? (4) How can Ukraine's EU accession process be accelerated? Should the accession process be reformed more generally, and what should such a reform look like?

**Modalities.** Likely to involve collaboration with scholars/think tanks in Ukraine and at least one Western Balkan accession country. To lead to at least one policy brief by the first quarter of 2024.

## 5. Europe's economic security

*Lead scholars: Niclas Poitiers, Jean Pisani-Ferry, André Sapir, Simone Tagliapietra and Jeromin Zettelmeyer*

**Motivation.** Following the energy shock induced by Russia's invasion of Ukraine and a growing sense of "strategic dependency" from China, economic security is a hot topic in policy making in Europe and other Western capitals, and a priority topic of the Spanish EU presidency. It is also intertwined with topics such as competitiveness, as well as a new debate on the role of industrial policy. The EU has recently issued an Economic Security Strategy, and several legislative proposals, including the Critical Raw Material's Act and the Net Zero Industry Act, are at least partly motivated by economic security.

**Key Questions.** How vulnerable is Europe to shocks related to trade, supply and FDI, taking into account not just current trade and investment patterns, but also the potential reactions of markets and institutions to such shocks? What are particular areas of vulnerability? What policy instruments should the EU and its closest partners use to reduce vulnerability? Is there a trade-off between higher resilience and growth and how is this trade-off best managed? What are the links between economic security and competitiveness? How should the EU respond to economic nationalism and protectionism in its major trading partners? Is there a trade-off between maintaining a global level playing field between the EU and other trading blocks and maintaining a level playing field inside the EU?

**Modalities.** This project will build on recent Bruegel policy briefs on the US Inflation Reduction Act and the EU Net Zero Industry act, as well as a major Bruegel Blueprint ("A policy for net-zero growth and resilience") published in early July 2023. It will be conducted as a collaboration with Europe's leading academic network, the Centre for Economic Policy Research (CEPR). Its core output will consist in 4-5 analytical and/or empirical papers, written by Bruegel and CEPR fellows, that look at specific aspects of the economic security debate. These pieces will be combined into a joint CEPR-Bruegel report, expected to be published in the first quarter of 2024. The policy lessons from the report and/or some of the individual pieces will also be published as Bruegel policy briefs.

## 6. The Chinese economy and its influence on Europe

*Lead scholars: Alicia Garcia-Herrero and Alessia Amighini*

**Motivation.** The development of the Chinese economy, EU-China relations and the implications of geopolitical rivalry between the US and China are among the most decisive determinant of EU and global welfare in the next several years.

**Key questions.** See below.

**Modalities.** This project is part of [China Horizons: Dealing with a resurgent China](#), a three-year research project (2022-25) funded by the European Commission, in which Bruegel is collaborating with nine other research institutions. Bruegel's focus is on the functioning and future of the Chinese economy, its interactions with the international economic architecture, China's global and regional strategies, and EU-China relations. The main objectives of the project for 2023-24 research cycle are listed below.

**Understanding the factors affecting China's structural deceleration.** China's economic growth is slowing down as a result of an aging population, decreasing returns to assets and endemic misallocation of resources. Building on research published in June 2023, the project will deep dive the drivers for some of these factors. Specifically, we will study fiscal sustainability and the impact of local government indebtedness on growth, misallocation of capital in the context of excess capacity and local policy incentives, scarring effects from Covid-19 on the labor market and deepen our understanding for China's quest for innovation in its various aspects.

**Enhancing the granularity of research on innovation in China.** China has made substantial progress in fostering its innovative capacity, but its translation into productivity growth has fallen short of targets. Excessive involvement of the government, US technology containment and high youth unemployment are creating serious bottlenecks. Building on work conducted in the first half of 2023, we will study the technical impact of Chinese patents and spatial determinants of innovative activities. We will also examine how developments in standard settings affect the increasing tendency of technology bifurcation.

**Industrial policy in China.** This sub-project will examine the role of the state in technological upgrading in detail, with a focus on China's industrial policy strategy. We will analyse the evolution of such by studying the rhetoric and implementation behind Made in China 2025 and the 10,000 Little Giants initiative. Finally, we will analyse the government's strategy to maximise the regional and inter-industry spillover effects of its various industrial policy schemes.

**China's growing global economic dominance.** Following the end of the pandemic, China's foreign policy engagement has evolved from a focus on infrastructure to also encompassing security and political aspects. With its Global Security Initiative and the Global Development Initiative, China has set a new tone that has also influenced the discourse within UN bodies. This sub-project will map the extent to which China has become central to global economic, political and security relations.



**Mapping the evolution of EU-China economic relations.** This sub-project will examine the state of EU-China relations along trade and investment dimensions. By analysing input-output data we seek to understand better where dependencies are most imminent. One focus will be on scientific collaboration and on the EU's prospects of de-risking from China in mining and processing of critical raw materials as well as clean energy technologies, while at the same time moving closer towards decarbonising the European economy. The project will also look at China's actions towards the accession countries and the eastern (including Central Asia) and southern neighbourhood of the EU and their impact on the EU's economic security and development.

## 7. EU digital regulation: What has been achieved? What requires rethinking?

*Lead scholars: Christophe Carugati, J. Scott Marcus, Bertin Martens and Fiona Scott-Morton.*

**Motivation.** Digital regulation is a key policy instrument for effective digitalisation and to preserve competition in the digital space. Adding to an initial set of EU legislation passed in the second half of the last decade, including the General Data Protection Regulation (GDPR), EECR and OIR, the 2019-2024 EU legislative period has given rise to the most comprehensive set of regulation in this area yet, particularly the Digital Services Act (DSA), Digital Markets Act (DMA), Artificial Intelligence Act and the Data Act. The purpose of the project is to provide an initial assessment of this new regulatory framework and identify areas where amendments or additions may be required in the coming legislative period.

**Key Questions.** Are the key regulations achieving their stated objectives? What have been early experiences with their implementation? Is the distribution of benefits among stakeholders as it should be? Who stands to benefit? Who stands to lose? Where are there gaps or overlaps? What needs to change? What should be the next steps in the digital regulation agenda?

**Modalities.** The project will give rise to at least two major policy briefs, devoted to identifying expected impacts (based on a mix of retrospective analysis where there is sufficient experience, and forward-looking assessment of the likely impact of newer measures), identifying gaps and recommending changes. Additional policy briefs and/or shorter analyses are expected on the impact of the GDPR, the applications or extensions of the Data Act and the implementation of the DMA provisions

## 8. The economic impact of Artificial Intelligence

*Lead scholars: Christophe Carugati, Duygu Güner, J. Scott Marcus, Laura Nurski, and Bertin Martens.*

**Motivation.** AI technology is advancing at lightning speed and solutions are being deployed rapidly. AI has the potential to massively alter society, both for good and for ill. The discussion on regulation of AI is in full swing, with an initial AI Act at EU level expected this year.

**Key Questions.** What are the potential economic costs and benefits of AI? How much of a revolution is AI compared to previous innovations? Economic productivity has been going down in many countries for some years now, will this change with the introduction of AI? Can the use of AI enhance the EU's global competitiveness? What sectors are likely to benefit the most from the adoption of AI in general and of generative AI in particular? How will AI impact the labour market: Which jobs will become redundant? What new jobs might be created? How will existing jobs be transformed? Will the impact be different across gender and age groups, education levels, and geography? How will AI affect competition? What are the potential threats associated with AI and what can be done to mitigate them? How great is the risk that over-regulation of AI might hamper the EU's ability for AI innovation, or slow its adoption? What can we expect at international level in terms of standards and of regulation?

**Modalities.** While answering all of these questions is out of reach, the project would aim to address at least three, through a combination of policy briefs and possibly shorter analyses: (1) Building on the existing and past Bruegel projects on the Future of Work, the impact of AI on the labour market; (2) The impact of AI on competition, and (3) The objectives and design of regulation to mitigate potential harms of generative AI content.

## 9. Improving the EU's energy and climate governance

*Lead Scholars: Jean Pisani-Ferry, Simone Tagliapietra and Georg Zachmann.*

**Motivation.** The European Green Deal set clear and ambitious decarbonisation targets. But the actions that are required to implement these targets remain largely in the hands of national governments. The current system might not provide sufficient incentives/commitment for all member states to deliver. Ensuring the success of the Green Deal may require a stronger governance than is currently in place, notably as implementation will likely occur in a less conducive political landscape for climate policy in the coming years.

**Key Questions.** What is the current state of play of EU energy and climate governance? How should this architecture be reformed? What are the externalities to be tackled? What is the fundamental EU energy and climate governance dilemma to solve? Based on all of this, what should be the key pillars of a new and stronger EU energy and climate governance, able to secure the implementation of the European Green Deal and to secure other societal goals such as resilience and competitiveness? Beyond energy, what kind of governance will be needed to advance the Green Deal agenda on bio-diversity, deforestation and nature restoration?

**Modalities.** Expected to result in a major policy brief in September of 2023, followed by at least one additional publication in the first half of 2024.

## 10. How to decarbonise the global south

*Lead scholars: Heather Grabbe, Alissa Kleinnijenhuis, Simone Tagliapietra, Georg Zachmann and Jeromin Zettelmeyer.*

**Motivation.** While the success of the EU Green Deal is paramount, the EU could potentially have an even bigger impact on global emissions reductions by supporting the decarbonisation of the global south, which (even excluding China) is a far larger emitter than the EU at this point. But how exactly?

**Key Questions.** What are decarbonisation targets for the global south that are both fair and realistic? What policy approaches can best implement these targets and how can the EU best channel its support? To what extent do these require reforming or expanding institutional mandates, e.g. of MDBs? Why have the Just Energy Transition Plans had limited success so far? How can public support most efficiently create incentives for private investment in decarbonisation, particularly in large emerging market economies that already are, or a close to becoming, large emitters? Is there a role for international trade of carbon permits, and how could this be implemented institutionally? Do we need a governance framework for future carbon dioxide removals? Will the Carbon Border Adjustment Mechanism effectively carbon leakage? What is the scope for EU-US cooperation in these areas?

**Modalities.** To lead to at least one policy brief in the Fall of 2022, followed by deepening of specific subtopics until mid-2024. Some of this work will be conducted as collaboration between Bruegel researchers and leading academic researchers, in collaboration with the CEPR network.

## 11. Electricity market design: beyond short-term patches

*Lead Scholars: Ben McWilliams, Simone Tagliapietra and Georg Zachmann.*

**Motivation.** Electricity is set to become the main energy vector in the European Union over the next decade(s). Thus, the design of the European electricity market(s) is a core part of the policy architecture to deliver on Europe's energy and climate policy goals. This may require a long-term reform that not only addresses weaknesses that have become apparent during the 2022 energy crisis but also, and principally, focuses on managing ongoing/arising structural shifts in the electricity system.

**Key Questions.** How can the European electricity market be reformed to address demand increase arising from EU's net-zero target; declining operations cost associated with renewable and other low-carbon electricity generation; decentralisation, as more and more modular clean-energy technologies are added to the system; and much greater flexibility needs? How can information and communications technology be used to deal with these challenges, particularly the integration and optimal use of decentralised assets and the demand-side response? Can a more local perspective on the power market transition allow for new efficient solutions and what would be the regulatory tools needed to enable this? What is the role of grid infrastructure and associated assets in meeting these structural challenges?

*Modalities.* To lead to a report on the current market reform proposal in the Fall of 2023, followed by analytical pieces on specific subtopics until mid-2024. Some of this work will be conducted in the framework of a contract with the ITRE committee of the European Parliament and some parts are supposed to be co-authored with European electricity market experts.

## II. Additional topics

### Macroeconomic policy and governance

Scholars: Marco Buti, Grégory Claeys, Zsolt Darvas, Maria Demertzis, Sven Erik Hougaard Jensen, Bertin Martens, Lucio Pench, David Pinkus, Francesco Papadia, Jean Pisani-Ferry, Lucrezia Reichlin, Pascal Saint-Amans, Armin Steinbach, Simone Tagliapietra, Stavros Zenios, Jeromin Zettelmeyer.

### *Fiscal policy and structural reform*

**EU fiscal governance reform.** Beyond the priority project described above, on the European Commission's proposal and debt sustainability analysis, we will continue to analyse and contribute to the ongoing reform of EU fiscal governance. If there is a political agreement at the Council on how to reform the fiscal framework, we will evaluate its expected impacts on the future course of fiscal policy and its possible impacts on green transition and the provision of European public goods. We will also comment on the increased scope for interaction between macroeconomic surveillance and fiscal surveillance.

**Recovery and Resilience Plan implementation.** The implementation of National Recovery and Resilience Plans (RRPs) progresses slower than what was planned in the national recovery plans. We aim to analyse the reasons for the delay, including administrative capacity at national and local levels, possibly burdensome national regulations, the shortage of qualified suppliers, and the difficulty of reporting requirements. Has the RRF altered the incentives of local, regional and national authorities, and how? We will seek to identify best/worst practices, and draw lessons for the next MFF, and for EU cohesion and public investment policy more generally. We will also seek to quantify the impact of the delay on the expected economic benefits of the RRFs.

**Recent trends in pension reform.** How have EU countries reformed their pension systems in the face of demographic change? What could they learn from other experiences (best practices)? Capitalised pensions are on the rise and funded pension systems are becoming more important. What are the implications for workers, public finances and capital markets? Why have countries abandoned pension reform efforts? Are pension reforms taking a long-term view or rather short-term fixes? Who benefits from reform efforts and who might suffer in the future? Is there scope for automatic adjustment of key parameters in pension reform? What are the implications of the trend from defined benefit to defined contribution pensions? To what extent and how

do countries seek to reduce uncertainty about the level of future retirement benefits in defined contribution pension systems?

**The impact of pension investments on the firms in which they invest.** One important set of arguments that is relevant to the pension reform debate relates to the impact of fully funded pensions on investment and growth. This project will contribute to this debate by examining the type of firms that pension funds invest in (do these tend to be more productive or innovative than other firms?) and how pension fund investment affects the productivity and the propensity for innovation of those firms. The project will also explore whether the effects vary among different types of firms, such as private and publicly listed firms, or small and large firms. This research has started and is expected to lead to a Bruegel policy brief and/or working paper by the end of 2022.

**Political Economy of Structural Reform.** This project will investigate empirically whether Jean-Claude Juncker's reported warning: "We all know what to do, we just don't know how to get re-elected once we've done it" can be verified in actual data of the electoral fortunes of reformist governments. A broad array of data on structural reforms will be used, along with political data on electoral outcomes. The basic finding in the data verifies Juncker's hypothesis, but probe a little deeper and it falls apart. Timing is everything. Timing in the electoral cycle; and timing in the business cycle. It is possible to design reforms that avoid Juncker's curse by paying attention to timing along both dimensions.

### *Monetary policy*

**CBDCs and the future of money.** A number of events in the past year raise issues about the future of money. The full bail-out of Silicon Valley depositors may have raised expectations of future such bailouts. The creation of Central Bank Digital Currencies, which are accounts held at Central Banks, provides a tool for eliminating run-risk on banks. What will this mean for the future of money and the future of retail banking?

**Data and platform economics of CBDCs.** This project revolves around Central Bank financial and monetary policy reasons for the introduction of CBDCs. It would approach the subject from a digital platform perspective, explore the potential economic benefits of CBDCs for consumers (both households and firms) in terms of transaction costs for payments and bank risks, and benefits for policy makers in terms of financial markets transparency and risk reduction, and the international currency competition dimension as a result of network effects.

**Policy design under fundamental uncertainty.** Based on previous work done, this will offer a framework for policy design when uncertainty is fundamental, i.e. non-measurable. What is the value of forecasts when the future is so uncertain and what is the value of data when the past is not a good predictor of the future? We will revisit the literature on Knightian uncertainty and provide a policy paper on how to think about it.

**Ongoing analysis of inflation and monetary policy.** As part of the framework contract that we have with the European Parliament, we deliver an average of four papers per

year to the EP's monetary dialogue in preparation for their meeting with President Lagarde. These papers are used by MEPs in their preparations. The topics are typically given to us and they are a very good way to keep up with actual debates in the Parliament on the issue of monetary policy. Occasionally, we are also asked to suggest topics ourselves. In any case, we will continue to monitor and analyse the monetary tightening cycle of major central banks (Euro area, US, UK, Japan). We will continue to draw attention to the link between inflation and inequality.

**Ongoing contributions to the debate on the digital euro.** The digital euro will remain a central topic of debate, both leading up to and following ECB decisions on key objectives and design expected by the end of the year. Building on recent Bruegel work in this area, we will continue to contribute to this debate. In addition to the effect on the euro area, this will consider the potential economic impact of the digital euro on non-eurozone Members States.

## 2. Banking and Capital Markets

Scholars: Rebecca Christie, Luis Garicano, Silvia Merler, Diane Mulcahy, David Pinkus, Elina Ribakova, Nicolas Véron and Stavros Zenios.

**European banking union completion, still critical.** Active negotiations on completing the banking union, triggered by the European Commission's proposal for a European Deposit Insurance Scheme in late 2015, have stalled in mid-2022 but the theme has not lost any of its urgency. Beyond a holistic essay planned for publication in 2023, work in this area could include participation in the ongoing legislative debate on crisis management and deposit insurance (European Commission proposal published in April 2023) and the possible design of an integrated European deposit insurance system. This would seek to draw lessons from recent US banking turmoil, both with respect to supervision (resources, incentives and instruments); and with resolution (liquidity in resolution, links to deposit insurance).

**Financial sanctions against Russia and EU policies to fight kleptocracy.** How can financial sanctions be used to better enforce export controls and other trade measures (oil cap/embargo) and limiting accumulation of Russia's FX revenues (focused on Russia, but also more broadly)? We used to think of financial sector sanctions as the leading measure, but it appears to have changed now, generating a need to think how they can support the leading measures imposed on trade. How can initiatives on AML, anti-kleptocracy and anti-enablers of misconduct can be used to support sanctions implementation – including the forthcoming European Anti-Money Laundering Authority (AMLA)? Do we need to rethink the EU architecture for conduct-of-business supervision? These topics are also of high relevance for EU capital markets integration.

**Banks and Net Zero.** Banks are the gatekeepers of the transition to a more sustainable economy, due to the key role they play in allocating funds across economic sectors. The key metrics for gauging banks' impact on the environment is that of "financed emissions" – also known as Scope 3 Category 15. While there has been significant regulatory and supervisory action to foster transparency of banks' exposures to climate related risk, the environmental and climate impact of banks' asset allocation choices in

allocating are much less explored (let alone regulated). Only few of the banks that respond to the Climate Change questionnaire administered by the Carbon Disclosure Project (CDP) disclose Scope 3 Category 15 emissions. From those disclosures, it is evident that those emissions trump any other direct environmental impact of banks. While the number of banks signing up to the Net Zero Banking Alliance (NZBA) and/or committing to set Science Based emission reduction Targets (SBTs) has increased over the past few years, it is unclear whether these commitments translate into actual changes in lending policies to the most polluting sectors. This paper will take a double materiality approach to answer what we think is a key question: what does it mean for banks to be truly net zero?

**The EU's sustainable finance framework.** Over the past few years, regulators in different jurisdictions have been drafting frameworks to direct capital towards ensuring sustainable economic activities and companies, while building safeguards against the risk of greenwashing. The EU sustainable finance package (including a taxonomy of sustainable economic activities, reporting requirements for companies and reporting requirements for investors) has been at the forefront of these developments, yet many key elements of that framework remain unclear and/or undefined. As the first reporting cycle under the EU Sustainable Finance Disclosure Regulation comes due in 2023, it is the right time to take stock. This project will assess the effectiveness and aptness of the EU current sustainable finance framework, from both the point of view of companies having to report sustainability data and the point of view of investors consuming that data. A comparison with existing sustainable finance frameworks in three major investment jurisdictions (the EU, the UK and the US) will also be performed. In related work, we plan to investigate the impact of ESG criteria using EU and US stock market data.

**Sustainability-linked government bonds for climate adaptation.** The UN's 2022 adaptation gap report estimates that adaptation costs in developing countries could hit \$340bn a year by 2030 and up to \$565n by 2050 and extreme weather events show how this is becoming a concern even in developed countries. Driving investment in climate adaptation requires engineering a careful alignment of incentives to overcome the mismatch that exists between the time at which the investment needs to be made (now) and the time when its benefits will become visible. Properly structured Sustainability Linked GGBs with specific adaptation-related targets may help solving this time inconsistency challenge and lower the cost of adaptation finance. A credible adaptation target (with biting coupon step up in case of target missed) embedded in the issuance of these SLBs could lower future expected credit risk by its impact on mitigating future climate change physical risk and hence allowing the issuers to raise long-term funding for adaptation projects at a cheaper rate. In related work, we also plan to investigate the integration of transition and adaptation risks to debt sustainability analysis.

### 3. Geoeconomics, trade policy, industrial policy, and innovation

Scholars: Alessia Amighini, Shekar Aiyar, Marek Dabrowski, Uri Dadush, Zsolt Darvas, Alicia García-Herrero, Heather Grabbe, David Kleimann, Jonathan D. Ostry, Jean Pisani-Ferry, Niclas Poitiers, Elina Ribakova, Pascal Saint-Amans, André Sapir, Armin Steinbach, Simone Tagliapietra, Reinhilde Veugelers, Jianwei Xu and Jeromin Zettelmeyer.

**Effectiveness of sanctions and export controls.** In reaction to Russia's invasion of Ukraine, the EU has imposed sanctions at an unprecedented scale. At the same time, export controls have become a major tool to slow down China's advances in strategic technologies (chips in particular), while the G7 is concerned over the use of export controls by China for economic coercion. However, the track record of sanctions and export controls provide a mixed picture. Given the increasing application and concern around such tools, this project would take stock of the knowledge around the effectiveness of sanctions and export controls and derive recommendations how to evolve EU policy in this area.

**Evolution of trade relationships between EU, US and China.** The idea is to examine how trade of the three trading powers evolved since the Global Financial Crisis (GFC) and what it might mean for their trade policy generally and vis-a-vis each other. This is a data-intensive exercise, making use of the WITS, TiVA and national source databases. Specific questions as they relate to each of the three large economies: how did total exports and imports evolve since the GFC? Itemise by main sector, origin and destinations and value added. How did bilateral trade flows evolve? (EU-US, EU-Ch, Ch-US) Did the TPs become more competitive or complementary? How did major trade policy departures affect these flows? What are the policy implications?

**The EU-India trade relationship.** This project will look at the evolution of EU-India trade in goods and services over the past 20 years and assess the importance and likelihood of an EU-India FTA to improve the trade relationship between the two partners. Compared to China, India is still a relatively modest partner for the EU. In 2021, total trade (goods and services, exports and imports) between the EU and India amounted to €120 bn compared to €776 bn for EU-China trade. There have been previous unsuccessful attempts towards an EU-India FTA. What may be different this time as far as the EU is concerned is a combination of three factors: India's rapid rate of growth; geopolitics and in particular the de-risking approach towards China and the shift towards the Indo-Pacific; and Brexit, which poises the EU as a competitor to the UK, which is negotiating its own FTA with India.

**Rethinking Global Supply Chains.** (This is a Horizon Europe project as part of a consortium led by IfW Kiel). The goal of the project is to enhance the understanding of GSCs using new measures that can quantify the role of knowledge flows and more generally services inputs and to evaluate the resilience of GSCs to exogenous shocks.

**China's role in the international digital area.** This project would examine China's growing role as an IT infrastructure supplier and standard setter, including: 5G and 6G mobile services; and China's push to upgrade to a more advanced version of the



internet protocol (IPv6) and related global standards. This will contribute to policy recommendation on how the EU can remain or become strong in these areas, while recognising the consequences of the fact that China's role in the digital economy has grown.

**The proliferation of financial sanctions.** Financial sanctions differ from trade sanctions in several dimensions: through market-centric rather than state-centric enforcement; from egalitarian and reciprocal sanction practice to hierarchical and hegemonic exercise of currency power; from multilateralism to unilateralism. At the same time, a 'blind spot' in international economic law leaves the most common types of financial sanctions effectively unregulated. Amid geopolitical tensions, there is a risk that this will give rise to a fragmentation of the financial legal infrastructure order. This project will explain the context and develop ideas for addressing this risk.

#### 4. Digital economy, labour markets, skills and health

Scholars: Anne Bucher, Christophe Carugati, Duygu Güner, J. Scott Marcus, Bertin Martens, Laura Nurski, Miquel Oliu-Barton, Georgios Petropoulos, David Pinkus and Fabian Stephany.

##### *Skills and labour markets*

**Supporting workers during the twin (digital/green) transitions.** This paper, part of Bruegel's Future of Work and Inclusive Growth programme, will investigate private and public initiatives on reskilling and transitioning workers, focusing on reskilling workers in jobs that are at risk from automation or decarbonisation. What are the barriers preventing workers in at-risk jobs from transitioning to future-proof occupations? How can private and public initiatives support workers in overcoming these barriers?

**Tackling labour market inequalities.** This line of research investigates various forms of labour market inequalities, including but not limited to wage disparities, participation gaps and variation in human capital endowments. The analysis also covers discrepancies in physical working conditions, such as hours of work, contract type. It examines the inequalities stemming from labour market segregation and job polarisation on the one hand and labour market discrimination and exclusion on the other hand with a specific focus on disadvantaged groups.

**The impact of the twin transition on the employment opportunities of vulnerable groups.** There is a growing recognition that the green transition is generating more employment opportunities for men compared to women. Moreover, recent studies suggest that AI is more likely to replace jobs traditionally held by women. Youth employment is susceptible to the adverse impact of twin transition as well; evolving skill requirements for entry-level positions frequently elevate the labour market entry barriers for the young. This task seeks to examine these asymmetric effects and assess the potential negative consequences that the increased use of technology and the green transition may have on economic prospects for vulnerable groups. Furthermore, it explores potential policy tools, such as promoting new hiring practices, to mitigate this loss.

**The impact of technical change on regional labour markets.** This project will analyse online vacancy data and evaluate regional dimensions of changing labour demand. Evaluating trends in local labour markets in the past five years and changes in skills composition in demand in these areas, it seeks to determine whether technological progress contributes to regional convergence or exacerbates existing inequalities. Informing targeted policies, this has the potential to ensure a more equitable distribution of economic opportunities across EU regions.

Transferability of occupational pension savings across Europe. Given important labour mobility across Europe, an increasing number of individuals accrue occupational pension rights in multiple EU states. EU regulations mandate that a worker's accrued rights are either preserved or disbursed upon moving to another EU Member State. However, no regulations exist regarding the transfer of savings between the occupational pension schemes of different countries. Does this impede labour mobility? Is there a case for a pan-European occupational pension product?

### *Health and demographics*

**Developing the health data record ecosystem in the EU.** Building on [a 2022 Bruegel report on the European Health Data Space](#) (EHDS) for the European Parliament in 2022, this project will examine the emergence and economic potential of data-driven ecosystems in the health sector. What role do health services providers (doctors and hospitals), health insurance companies, pharma companies and large cloud and AI infrastructure companies and B2C consumer platforms have in the emerging health data ecosystem? How can the service innovation potential of partial health data sets be maximised? How could this ecosystem evolve in future? What factors could trigger the emergence of “orchestrators” in the ecosystem to maximise economies of scale and scope in data aggregation and analytics to improve productivity in health services?

**A review of the Commission's proposals to reform pharmaceutical legislation.** Pharmaceutical legislation, enshrined in the single market acquis, is a powerful structural driver of EU healthcare systems (equal access, innovation, affordability of healthcare). In April 2023, the Commission launched a proposal to overhaul EU pharmaceutical legislation, with a view of moving from a pure single market approach towards a strategy to strengthen access to healthcare and health security. The proposed project would consist in a critical review of the Commission's proposals. Would they contribute to healthcare system convergence, and to more equitable access to drugs? Would they help to strengthen the EU's global competitiveness and to close the innovation gap for medicines between the EU and the US? Can any lessons be learnt from the history of EU financial regulation for the purposes of progressing towards a single market for medicines?

**Intra-EU cross-border work and/or training for health professionals.** Projections show increasing shortages of health professionals in all EU countries. The attractiveness of the health sector as a place to work, the retention of workforce and the well-being of professionals are becoming the number one priority for ministries of health in all Member States and a major risk to the sustainability of European health systems. Given

the high mobility of students and professionals, should health policy at the EU level seek to coordinate national labour markets for health professionals, even if health systems themselves are not an EU competence? What steps would such coordination involve?

**The impact of demographic and health trends on European labour markets.** European countries differ in terms of longevity and health trends, as well as long-term care setups. This project, undertaken as part of a Horizon Europe grant, will characterise these trends and identify (1) potential consequences in care needs, (2) implications for labour supply and productivity, and (3) policy options, including long-term care policies, pension policies, and migration policy.

## 5. Energy and climate policy

Scholars: Heather Grabbe, Alissa Kleinnijenhuis, Ben McWilliams, Miquel Oliu-Barton, Jonathan D. Ostry, Jean Pisani-Ferry, Simone Tagliapietra, Reinhilde Veugelers, Georg Zachmann and Jeromin Zettelmeyer.

**European Energy Market.** Bruegel will continue to monitor the ongoing fall-out from the global energy crisis of 2022 and provide timely analysis on relevant policy decisions. For as long as deemed helpful, Bruegel will maintain its existing databases tracking the energy and economic implications of the crisis. This includes a focus on fiscal implications of government spending to shield consumers, natural gas and oil imports, as well as natural gas demand. This will be complemented by analysis pieces investigating key topics, including a periodic update on the state of the EU's energy security and competitiveness. Precise research topics will be guided by real-world events providing Bruegel researchers with the flexibility to adapt to the fast-moving political and economic reality.

**The Industrial Policy of Europe's Green Transition.** The past year has increased attention on the need to accelerate Europe's green transition and on the substantial requirements for building out and expanding new low-carbon value chains in areas such as electric vehicles, heat pumps and hydrogen. Policy attention has grown both in the US via the Inflation Reduction Act, and in the EU with the Net Zero Industry Act. Bruegel researchers will seek to identify key bottlenecks, policy or otherwise, that are slowing European growth in clean tech deployment and manufacturing, most immediately for energy but in future also for the circular economy and other Green Deal objectives. Will current targets be achieved? How do the temporary state aid rules affect investments and the single market?

**Geoeconomics of the New Global Energy Map.** New clean value chains and the transition away from fossil fuels will reshape global energy dynamics and economics – and define the eventual success of initiatives such as the European Green Deal. Many industries are set to undergo a radical restructuring with high potential for geographic relocation, both within the EU but also externally. Policy decisions in this area will have substantial distributional consequences that are highly region-specific. The process will

also impact the EU's energy and economic relationship with third countries, including Ukraine and the Global South. This research stream will explore key economic variables which may drive pressures for relocation and create new energy value chains as European demand for clean energy and the raw materials for decarbonisation changes trade and investment patterns. The evolution of this new energy map will also have effects on the EU's international relationships. This will complement previous Bruegel work exploring the geopolitical implications of the Green Deal and the role of Europe in fostering the energy development of Africa.

**Political Economy of Climate Mitigation.** Climate policy can be pursued with different instruments, spanning from environmental regulation to subsidies, to carbon pricing. Each of these instruments has its own political economy implications, which might differ among jurisdictions. This project will investigate empirically the relationship between climate policy instruments and electoral outcomes. Question to be investigated include: whether there is a relationship between electoral outcomes and the stringency of environmental policies, whether some type of measures, such as carbon taxes, are particularly costly in electoral terms and whether other escape the wrath of voter altogether. Understanding these relationships might help to identify politically sustainable climate policy mixes.

**Modelling the green transition.** In the framework of three Horizon Europe (Decipher, IAM COMPACT, PRISMA) projects Bruegel participates in international modelling consortia. The model ensemble covers a wide range of time frames, geographic and sectoral resolution as well as economic approaches. Bruegel will, together with the excellent partners, identify relevant policy questions, translate those into sensible scenarios and generate useable policy recommendations. For 2023, work on the energy crisis, global energy price differentials and input to the 2040 target discussions is being planned.

