



2018-19 Research Programme



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Introduction

This year's research programme comes at an interesting moment for the European and global political and economic system. First, in line with what we predicted more than a year ago, the US president is radically challenging the nature of previous alliances and the multilateral order that, up to now, was supported by the US. This shift is manifested through global trade – where a trade war has effectively started and through the withdrawal of US cooperation on fighting climate change. It also affects old forums such as the G7. Second, the pool of European leadership itself has seen significant change with a number of national elections that brought substantial change. Old parties were pushed out of power and new political forces came to power in a number of countries. Citizens are asking for change. At the same time, the Brussels based leadership is entering the final year of its mandate as the European Parliament heads towards its next election. Third, the underlying trend of a rising China as not only a strong export nation but also as a technological and political leader is becoming ever more evident. And fourth, the EU will be losing one of its members, the UK.

Against this background, we plan to spend the next research year on analysing long-term trends and reflecting on the medium-term strategic choices for Europe. We also want to be able to react to short term developments (there are bound to be many) but our focus will be on shaping longer-term critical debates. One important milestone in that respect is a set of briefings we will be preparing for the incoming European leadership.

Many questions will be in the dedicated focus of our research team of almost 40 experienced scholars. How should trade policy evolve? How can Europe best defend itself when it is integrated in value chains world-wide? Do Europe's macroeconomic policies need to change? Is European productivity growth doomed to remain relatively subdued? How should the EU's industrial strategy evolve and its car industry adapt? What are the geostrategic implications of the increased use of different raw materials for renewable energy? How will the EU make progress on its governance reforms, improve relations between the euro area and the countries outside and reform the euro area itself? Do we need to reform the European institutions, improve their governance and achieve better regulation? How is public opinion evolving and are national debates taking more or less notice of European policy needs? How should tensions between anti-establishment parties and the European mainstream be managed? What about the future of capital markets and banking in Europe? What about digitisation, trust and data privacy and their economic implications in a European and global context? How should the welfare state evolve as digitisation changes work models? The overarching question is the sustainability of the political, economic, social and environmental models that are applied in Europe and in the world.

We realise that this year's research programme is perhaps even more ambitious than usual – and we do want to reserve the freedom of our scholars to delay some research projects so we can react to

news developments. Yet, we do want to pose these questions – not least because most of our research and thinking will find its way into our memos to the new European leadership. We will address these key questions through a mix of research papers, policy notes and dedicated workshops and events. We will not be able to answer every question in every dimension but we shall contribute with evidence-based, honest, and also provocative research – in order to shape debates and promote solutions.

Guntram Wolff and Maria Demertzis, 27 August 2018

A. Research Area: European macroeconomics and governance

Participants:

- *Scholars: Grégory Claeys, Zsolt Darvas, Maria Demertzis, Silvia Merler, André Sapir, Guntram Wolff, Francesco Papadia, Konstantinos Efstathiou, Jean Pisani-Ferry, Inês Gonçalves Raposo, Giuseppe Porcaro*
- *Non-resident and visiting scholars: Thomas Wieser, Agnes Benassy-Quéré, Stavros Zenios, Emmanuel Murlon-Druol*

Demands to reform not only the structures of national economics but also the governance and the architecture of the euro area continue. The challenges that Europe faces, be it from within or from outside its borders require efficient ways of handling European public goods, like migration and defence, and efficient ways of applying macroeconomic policies.

However, the appetite to pursue reforms is neither uniform across policy areas nor across member states. The level of trust between countries, towards European institutions as well as between citizens and the political and business elite is low, making progress more difficult. The current approach in Europe often leads to just the minimum needed. And it often relies - rightly or wrongly - on intergovernmental mechanisms of making progress.

2019 will be a year of a number of important events for the whole of Europe. The UK will formally leave in March. This means there is little time remaining to agree on the future relations that we will have or on the transition that will take us there. We anticipate that we will be involved in these important debates.

Also, 2019 is the year of the European elections. As at the last election, we plan to shape the debate both in the run-up to the election on key topics (in a non-partisan way) as well as after the election with our “memos to the new Commission”. 2019 may also be the year in which the European budget for the next seven years will be agreed.

In this context, Bruegel scholars will help define which strategies European and national policy makers should pursue. Which public goods are now central at a moment in which the “West” looks divided and old approaches of operating may no longer be working? How should European and national budgets be modernised to meet future challenges? Which trends in European public opinion need to be highlighted and investigated?

We organise our research in this area into four main themes: 1. European Governance; 2. Macro policies in Europe; 3. Factors of growth (inclusiveness, productivity); 4. European public opinion.

A number of projects in European macroeconomics and governance are strongly connected to research in other areas. For example, analysing the EU’s macroeconomic policy stance cannot be done in isolation from an analysis of the financial system and indeed, global issues like trade.

1. European Governance (A1)

We will explore the governance of a wide continent of around 40 countries, an EU under stress and a euro area in process of continuous reform. Different models can be imagined on how the continent’s governance will evolve. One of three circles with the euro area at the core, followed by the EU and an outer circle of friends. Another option is a more club-like structure depending on policy areas. We will

contribute to the debate of European Integration and deepening versus widening in the EU and the issue of euro area reform in particular. Issues like variable geometry, the non-euro area EU and opting in or out of various aspects of governance (e.g. banking union, budget, Eurogroup and/or ecofin) will be the main questions we will examine.

Two important events in the context of the EU in the coming year will be the European elections and meeting the deadline at which the UK exits the EU in March. With regards to the former, we will look in significant detail at accountability and legitimacy issues in the euro area and the European Union: for instance, we will participate in the debate on the role of “Spitzenkandidaten”, the potential reform of the college of Commissioners, the representativeness of the EP, the role of the Eurogroup, the role of a potential finance minister for the euro area, and more.

We will follow closely the Brexit negotiations, as we approach the exit deadline. We will contribute to the debate on the progress made by then as well on what the transition years ought to address and the transition to this long-run relationship.

Moreover, and importantly, we will work on the governance of better regulation – with a view to making concrete proposals to the next Commission on how the “better regulation process” can be structured more effectively.

Finally and as always, we will also evaluate past governance initiatives and their effectiveness. Why and when do countries implement reforms? We will also host a workshop assembling the EU’s productivity boards to understand their effectiveness.

2. Macro policies in Europe (A2)

As in previous years, we will analyse the major macro-policies in Europe and in the euro area in particular, concerning fiscal and monetary, as well as the design and implementation of structural policies to sustain growth. Designing fiscal rules that can increase the efficiency of fiscal policies and the implications of the beginning of the ‘normalisation’ of monetary policy and its distributional effects are two prominent questions in our agenda. Public investment and budget composition is also an important aspect to look at.

Beyond that, dealing with financial crisis’ legacy problems and the need to reform underlying structures, will complement our analysis on macro issues and inform the discussion on which policies to encourage, in order to support convergence between Member States.

Finally, this is a year in which the next Multiannual financial framework, the EU budget, will be negotiated for the next seven years. The loss of the UK as a net contributor and concerns about the effectiveness of the EU budget make these Multiannual financial framework negotiations crucial. We will look in particular at some of the challenges the EU faces (migration, border control, defence), which have grown in political relevance (even though actual migration numbers have come down significantly in the course of the last years), and are having a negative impact on the European political cohesiveness and therefore on the solidity of the euro foundations. For these reasons an analysis of how the EU budget can deliver these European public goods is essential. In this context we will revisit the role of the EIB.

We are also exploring the possibility of creating a pool of European economists whom we can survey regularly on topical issues of economic relevance. The objective is to be able to collect in real time the views across all corners of Europe to identify consensus of what is best practise but also understand

disagreements and how to resolve them.

3. Growth, inclusiveness and productivity (A3)

Two main themes characterise this part of the research agenda: new sources of productivity as well as its measurement in transformative times, and welfare implications of an increasingly digitised economy.

In the era of digitisation, the measurement of productivity needs to be re-thought. Understanding the role of intangible capital and the ways that it allows digital firms to scale up are both issues that can help measure productivity in more accurate ways. This is an important input to explaining what has come to be known as the 'productivity puzzle' and is the first step in identifying new sources of productivity growth. Our aim is to contribute to how policy needs to be designed in order to support productivity growth.

The second theme is the welfare implications of digitisation. This matter can be seen from two directions: how current welfare systems promote or stand in the way of further digitalisation, and how an increasingly digitised world may affect welfare models currently and in the future. The future of work in light of digitisation is a continuing concern – not only the number of jobs, but also how social protection can be maintained as the character of work changes, and full-time long-term employment becomes less and less the norm.

Finally, we will continue to examine distributional issues, particularly as a result of digitisation, linking this to the broader theme of digitisation. The concepts of inequality and inclusiveness will be an important lens through which we will evaluate developments and indeed the appropriateness of policies.

4. European Public Opinion (A4)

The last broad theme in the area of European economics and governance will include an examination of perceptions. In this respect we envisage three broad questions.

First, is there such a thing as a European public opinion, and how does it relate to the various national opinions? We will rely on novel ways (counting methods) of collecting data (similar to what we had done the previous year on national narratives) to extract information on which perceptions grow to a European level and how.

Second, we will examine euro-scepticism more specifically. Recent political developments call for a closer understanding as how the euro is perceived domestically in both euro and non-euro area countries and what are the drivers of that perception.

Third, we will ask how Europeans perceive the process of globalisation, and how such perceptions formulate the European public's readiness to remain open. In this context, we will also investigate how the European public perceives China's Belt and Road initiative and whether these perceptions are evidence of China exertion of global soft power. We will explore differences that emerge between countries.

All three studies go beyond economic issues and have important political and societal implications. We will be conscious to address, therefore, the interdisciplinary nature of such questions.

5. Memos to the incoming European leadership (A5)

The European parliamentary elections in 2019, and the appointment of a new European Commission are an important moment to reflect on strategies, priorities, and approaches to managing the complex European economic and governance system. It is an opportunity for Bruegel to highlight important topics that should be debated in the run-up to these elections, and prepare briefings for the key economic portfolios of the new incoming Commission. This project will involve many Bruegel scholars in all areas and will lead to a publication in the summer of 2019.

B. Research Area: Global economics and governance

Participants:

- *Scholars: Maria Demertzis, Silvia Merler, André Sapir, Alicia Garcia-Herrero, Guntram Wolff, Nicolas Véron, Marek Dabrowski, Jean Pisani-Ferry, Kostas Efstathiou*
- *Non-resident and visiting scholars: Suman Berry, Uri Dadush, Elliot Posner, Jianwei Xu*

The possibility of trade wars is no longer a distant threat. The US administration has implemented a number of measures and has announced a series of additional ones against a number of major trade partners around the world invoking national security considerations. How all this will play out in practice remains a great source of uncertainty. The EU is responding but still struggles with how to deal with the quite new situation in which the transatlantic alliance on trade and many other issues appears to be put into question.

But beyond trade, the multilateral system and the institutions currently in place speak to the way that we carry out international policy coordination. Europe is a globalised continent integrated in global value chains. How will this effectively reversal of globalisation affect Europe and what does it need to do to defend itself? We will engage in discussions on how to best adapt the system to deal with current challenges and trends and to reduce excessive global imbalances.

Also, we will continue our research on China and the close EU neighbourhood. On China the questions range from financial markets issues as well as trade strategies and the effect on Europe's position in the world. On the neighbourhood we will continue ongoing collaborations with neighbouring think tanks and explore developments in third countries at our borders.

Our research in the area focusses on four broad themes: 1. The future of global trade; 2. Global governance: G20, global multilateral institutions; 3. China and the EU; 4. EU neighbourhood.

1. The future of global trade (B1)

We will explore further the options the EU has to defend its own trade while at the same time remain proportional and hopefully minimise the damage that such measures might imply for itself but also the rest of the world. Inaction is a way of enduring all the costs and will effectively destroy the EU's

standing as a defender of free trade. Retaliation in ways that are proportional will send a very clear signal on the detriments of protectionism. But it risks also damaging global trade and hurting others in ways that are not easy to foresee. At the same time the EU will need to actively engage with the rest of the world to salvage international multilateral fora as well as protect trade relations with other countries. Global trade is interconnecting national economic systems in long chains of integrated value – rendering trade discussions complex and divisive.

Can this be the beginning of a reversal of the process of globalisation? How would it change fundamental trade partnerships? These questions will be guiding our research agenda in the course of the coming year.

A dedicated piece will explore how the increasing economic weight of China with its different economic system challenges long-held beliefs and approaches to globalisation. While ten years ago, many were still hoping that China's economic system would converge towards a Western one, this is seen differently now. That raises significant questions for the functioning of trade policy, competition policy and more broadly global governance.

2. Global governance: G20, global multilateral institutions (B2)

Next to trade we will be considering the system of global governance. This will involve the role of international fora like G20, G7 and the role of international institutions like WTO, ILO, World Bank and the IMF.

The issues go beyond trade and also concern the broader international financial system as well as the broader system of international policy coordination – which for all its imperfections is still important and useful.

How should the EU's position evolve in the global stage? In a world of US withdrawal from global leadership and the emergence of China as a defender of multinational agreements, the EU finds itself caught in the middle. Nurturing traditional alliances while at the same time creating new ones will be key to establishing its position.

3. China and the EU (B3)

We will continue to examine the role of China in the global system and its relations to the EU. We will organise our research around three broad themes.

First, China and the EU compete with each other not only in their respective domestic markets but also beyond in third countries. This project aims to describe the competitiveness stance between China and the EU elsewhere, i.e. Latin America, Asia Pacific and Africa. This will help the EU better implement its competition and innovation policy to compete with China.

Second, against the background of increased external pressure, China made a number of announcements to open its financial sector further in banks, securities, life insurance and asset management companies. However, foreign participation remains low still, and virtually all in the form of joint ventures, except for banks. This project looks into opportunities and risks from the perspective of Europe.

Third, the People's Bank of China has announced its plan to build a centralized digital currency system. What will be the impact of the currency on China's global influence, especially through the financial

channel? Will it facilitate the internationalization of the RMB and to what global effect? This project deals with the issue and will shed light on the EU's development of digital currency. How will that affect financial cooperation between China and the EU. What can the EU learn from China in this regard?

4. EU Neighbourhood (B4)

We will continue to work on economic relations with EU neighbourhood countries.

Our research will include monitoring of economic developments in countries that have actual or potential EU candidate status (Western Balkans and Turkey), being EU partners within the European Neighbourhood Policy framework (Southern and Eastern dimensions), Russia, and, to a lesser degree, in the broader Middle East, post-Soviet Central Asia and Sub-Saharan Africa.

We will explore EU economic relations with individual regions, sub-regions and countries, and intra-regional economic cooperation (for example, between Western Balkan countries, Southern Mediterranean countries, countries of the former Soviet Union, etc.), including energy cooperation (see project on energy and Turkey) and managing migration. We will review the EU policy frameworks towards candidate and neighbouring countries.

Last, we will continue previous cooperation with other think tanks on research in the MENA region and broader Africa.

C. Research Area: Finance and Financial Regulation

Participants:

- *Scholars: Grégory Claeys, Maria Demertzis, Silvia Merler, André Sapir, Nicolas Véron, Guntram Wolff, Inês Gonçalves Raposo, Konstantinos Efstathiou*
- *Non-resident and visiting scholars: Alexander Lehmann, Dirk Schoenmaker*

Banking Union, although incomplete, is very much in full force in the euro area. By contrast, we have made less progress towards developing a true capital market union that will provide an alternative source for financing growth. We will consider the progress made, analyse the structural impediments that may bias debt versus equity financing and the development of a new landscape of financial regulatory agencies in the EU. At the same time our research programme will be looking at which issues will define finance in the future and how we can best prepare for them.

We will organise our research in four broad themes: 1. Europe's banking union; 2. Europe's Capital Market Union and the debt versus equity bias in European finance; 3. The future of Europe's financial system.

1. Europe's Banking Union (C1)

Europe's banking union represents a regime change in European financial policy, and its consequences will reverberate for many years to come. This project will contribute both to ongoing debates about implementation, and to the identification of the next steps of policy development, addressing the balance between risk-sharing and risk reduction. One dimension is assessing the workings of the SSM and the interplay between the SSM and the resolution and liquidation processes. Other issues to

address will be the possible creation of a European deposit insurance scheme and the possibility of having limits on banks' sovereign exposures. There will be an assessment of the first five years of the operation of the single supervisory mechanism.

2. Europe's Capital Markets Union (C2)

We will explore how the landscape of EU Financial Regulatory Agencies is evolving. The European Union has created a number of new agencies and financial regulatory or supervisory bodies since the outbreak of the Great Financial Crisis, including the EBA, EIOPA, ESMA, ESRB, ECB banking supervision (aka SSM), SRB, to name only the most prominent ones. While arguably indispensable, this development has greatly increased the complexity of the institutional landscape at the European level, without simplifying structures at the national level. This project will take a holistic look at this new structure, its possible shortcomings in theory and practice, the challenges of efficiency, effectiveness and accountability, and how it addresses the divide between euro-area members and other EU member states and indeed the UK.

One project will assess capital market development in the "new" EU member (EU-11) states, and the likely impact of recent EU capital market regulation and the CMU programme. There will be a quantitative assessment of the growing importance of non-bank finance in corporate funding, and of correlation with bank credit. We will overview compliance costs arising from new capital market regulation in EU-11 with mostly immature capital markets, and a largely SME-type corporate structure.

Also in the context of building capital markets in Europe, we will work on the debt versus equity bias in European finance. This will involve assessing how the composition of finance has changed, quantify the debt bias, and understand the reasons behind it within the regulatory and tax regimes of the euro area countries.

The project will assess the changing composition of corporate funding since the financial crisis based on the ECB and EU Commission Survey on access to finance of enterprises (SAFE) and/or other data sources. We will survey existing empirical literature on the regulatory and framework determinants of the composition of finance in EU enterprises with a view to understanding the impact on deleveraging, the impact of private equity investment on firm performance, operational efficiency and corporate governance. We will enumerate recent reforms in euro area countries in these areas.

4. The future of Europe's financial system (C3)

This part of the research agenda will focus on three issues:

- A. **Sustainable finance.** From an oddity in the banking sector, sustainability criteria are becoming more mainstream in the decision on how to allocate funds. Understanding how this has evolved in the past few years, including with the European Commission's Action Plan on Sustainable Finance will provide a clear picture of the pace at which it is evolving and the impact it has on long term investment. We also intent to host a workshop on long-term finance.
- B. **Venture capital.** In the effort to move away from bank finance to more equity finance, venture capital remains an important but less explored means of finance in Europe. This is particularly important in the era of digitisation where new ideas are not generated in well-established firms, but in new start-ups who are enabled by technology. But it is also relevant in the health sector and elsewhere where start-ups invest in new ideas and patents without tangible collateral (before patent is granted).

- C. **Fintech/Cryptocurrencies.** We will continue our exploration of the digitisation of financial services. Various aspects such as the provision of digital banking, the role of blockchain technology and platforms and the expansion of cryptocurrencies and crypto-assets have important implications for the future of finance in Europe. We will explore the need for regulation and in what form, in order to allow for new technology to develop without compromising consumer and investor protection. Last we will explore the benefits (and risks) that Central Bank Digital Currencies present for the financial system.

D. Research Area: Innovation and competition policy

Participants:

- *Scholars: Georgios Petropoulos, Reinhilde Veugelers, J. Scott Marcus, Simone Tagliapietra and Georg Zachman*
- *Non-resident and visiting scholars: René Arnold, Timothy Yeung*

Digital transformations and the way they empower innovation and technology are crucial elements to understanding the future of growth and development. Our research programme has been steadily expanding over the past few years in this respect. We will talk about issues that refer to Europe's industrial policy, and more specifically on the implications of digitisation.

On rethinking Europe's industrial policy we will examine the merits of the proposal put forward by France and Germany to create a centre for AI excellence in Europe. This will allow us to look at the existing gaps in Europe regarding digital transformation. More generally we will continue our research on R&D concentration issues in European superstar firms and the role that they play in generating innovation and growth. Last, we will also examine the adaptability of the automotive industry in the EU and how prepared it is to meet the challenges that are coming, notably electrification.

On digital issues, we will research issues of transparency and accountability that can help ensure consumer trust. Also, taxing digital services is a widely discussed question and one that needs to establish and protect the level playing field among all firms. Last, as GDPR has come into effect, we will investigate implementation issues that remain and the perspective that GDPR will/may become a global standard.

Our research in the area is focussing on five themes: 1. The EU's industrial policy strategy and its firms' innovative edge; 2. The European automotive industry: Ready for the global electric cars revolution; 3. Evolution of Digital services; 4. Evolution of EU networks; 5. Privacy, security and trust.

1. EU's industrial policy strategy and its firms' innovative edge (D1)

Both France and Germany have put forward a suggestion to create a centre for AI excellence in Europe. We will examine the merits of such a proposal as a way of creating an industrial policy for Europe. We will also examine other aspects of a potential industrial policy. Technological progress, such as robotics and artificial intelligence, are often seen as a culprit for the loss of jobs and rising income inequality of individual citizens. It is also linked to increasing inequality in the corporate landscape as "superstar-firms" forge ahead in "winner-takes-most" industries.

Following previous work, we will examine Europe's position amongst the global corporate R&D "superstars" and implications for growth. What characterises the R&D leaders in their sector in the

EU? How do they succeed in keeping and even expanding their leadership positions? What characterises those that lose their R&D leadership? And how easy is it for new or lagging firms to catch up? EU firms will be compared to their global competitors, including Chinese firms.

We will particularly focus on sectors pivotal to the EU's innovation growth potential. A key question is whether the EU needs its own "industry 4.0" strategy going beyond various national initiatives. What is the innovation framework and policy strategy for high-tech sectors where technological innovation is important, where the speed of change is high, and the changes are drastic? These include biopharma, digital and automobiles. A particular focus will be the AI challenge and electric vehicles.

2. The European automotive industry: Ready for the global electric cars revolution? (D2)

The automotive sector is important for the EU, as it represents four percent of its GDP and employs around eight million people. It also has an important multiplier effect on the economy and ranks among the most important sectors in terms of value added and exports in Europe. The automotive sector is currently undergoing a number of radical transformations that will create both valuable opportunities and challenges for the European automotive industry. This project takes a closer look at one of these transformations – the electrification of passenger vehicles. In particular, it examines the current state of the European automotive sector in order to assess whether the European automotive industry is well-positioned to deal with the costs of transformation and to respond to the electrification trend.

3. Evolution of Digital services (D3)

The ongoing digitisation and digital transformation of the EU economy and society more broadly (including artificial intelligence, robotisation, digital online services, e-commerce, and the Internet of Things (IoT)) raises many ethical and policy questions.

At the same time, the potential productivity gains that this transformation unleashes are immense but also pose risks and uncertainties. Notable among the new concerns are the need for transparency, and questions in regard to who bears legal liability when something goes wrong. This can have important implications for consumer protection and ultimately about the trust that will allow digital services to evolve further.

Similar concerns arise with regards to the taxation of digital enterprises. It is too easy for these firms to shift profits to low tax jurisdictions, thus causing economic distortion. A long-term fix is needed but is elusive in the absence of a global consensus backed by political will. Differing VAT implementation across member states is a source of complexity for e-merchants that operate across borders.

Digital technologies help to make our economy more inclusive, e.g. by facilitating flow of data, but also enables establishment of new barriers. What policy framework is necessary in order to ensure digital technologies promote inclusive growth in both social and geographic terms?

4. Evolution of EU networks (D4)

The next phase in the evolution of EU27 fixed and mobile public networks is expected to be far more expensive than previous phases. European industrial policy calls for build-out of these networks. How much are these deployments realistically likely to cost? How might they be funded? Are there ways to reduce deployment costs so as to make deployment more affordable for the firms that would need to make the investments? At the same time, we intend to assess the potential urban vs rural investment gap that currently exists to guide our understanding of future needs.

5. Privacy, security and trust (D5)

With the effective launch of GDPR this year, the issue of confidence in the data protection provided by digital services is paramount for the public to trust, and thus to use, digital services.

Many questions remain for the next legislative term. How effective will GDPR prove to be? How burdensome is it on firms in Europe? Might GDPR become a de facto global standard and will it be effective on US-based and China-based digital firms? Is sector-specific privacy (as embodied in the e-Privacy Directive) still needed, and if so, what gaps in the GDPR does it really need to address? For example, how to think of health data privacy issues? What could be the impact of the adoption of the e-privacy directive? Will the data protection / data transfer measures with the US under Privacy Shield prove to be effective under Trump? Will a new Privacy Shield be needed for data transfer with the UK post-Brexit?

Our research programme will discuss some of the remaining gaps in the implementation of GDPR, while we aim also to understand its ramification beyond Europe's borders. We will also engage on issues of cybersecurity that come up, with blogs or workshops.

E. Research Area: Energy and climate policies

Participants:

- *Resident scholars: Simone Tagliapietra, Georg Zachmann, Reinhilde Veugelers*
- *Non-resident and visiting scholars: Andrei Marcu, Suman Bery*

Our climate research this year will focus on how to “mainstream” climate policy and ensure that targets set are not in conflict with other objectives, primarily growth and inequality. We will review the increasingly overlapping institutions that oversee the process of meeting targets and bring together a set of (external) experts to reflect on concrete steps that can help push the policy agenda. This year will also reflect on the geo- economic and political implications of the energy transition to renewables.

1. Mainstreaming climate policy (E1)

The objective here is to understand how EU leadership on clean technologies gives us a competitive edge that promotes growth and job creation. We will explore how shifting from a narrow set of targets and the ETS to a more integrated approach that rests on a wider policy set will raise new questions. Two such examples for such mainstreaming are trade policy and financial regulation.

Global trade can be affected in multiple ways. First, climate action by all parties might increase the need to exchange low-carbon technologies, while trade in fossil fuels – which currently represents around 15% of global trade - might vanish. Second, there is a long-standing discussion on trade-measures against laggards. On the one hand the Paris Agreement reduces the need for such measures as now all countries have mitigation commitments. On the other hand, trade measures might still represent a tool to avoid leakage/motivate compliance. Our research will identify the possible impact of the implementation of the Paris Agreement (and global decarbonisation in general) on trade flows and provide policy recommendations on how trade policy can support this process.

Also, we intend to investigate which existing or new financial tools are necessary to ensure that financial markets enable a process of efficient decarbonisation. One question we will address is whether “**Sustainable Finance**” measures (e.g., transparency requirements) can help achieve climate targets or whether they stand in their way. This links naturally also to the future of finance issues to be discussed in our research on the future of finance (C4).

2. Institutions in EU energy markets (E2)

EU energy markets are subject to complex rules that are overseen and developed by increasingly overlapping institutions (regulators, system operators, competition authorities) on a sub-national, national, regional, European and supra-European level. We plan to take a look at the respective competences and discuss whether this division is still appropriate in a more interconnected energy market, and with systems incorporating more decentralised structures.

Also, we intend to bring together a group of external experts, a Brussels reflection group, to discuss relevant policy issues. This reflection group will comprise of leading European energy and climate economists, to discuss the ongoing energy transformation and to reflect on the fundamental lines of a new policy framework to propose to the new Commission.

Finally, we will publish a note looking at fiscal policies aimed at fostering decarbonisation and their distributional effects.

3. Energy policies in the rest of the world: the role of the EU (E3)

Progress in meeting climate targets relies on coordination at the global scale. The EU therefore has a role to play not only in meeting the targets it sets itself, but also by encouraging, helping and monitoring progress in the rest of the world. In this context we will look closely at energy issues in two countries, Turkey and India.

With regards to Turkey will analyse the current cost of capital for renewables in Turkey by type of financier, technology and location. This will allow us to compare the cost of capital for renewables in Turkey with the EU, to identify the reasons for differences with the EU and to outline best practices. We will provide policy recommendations, also to European financing institutions, on how to reduce financing costs for renewables in Turkey.

India is about to overtake China as the largest growing energy market in the world by the late 2020s and will more than double over the next 25 years. In this context, the country’s energy policy is critical

for meeting the Paris Agreement's targets. In this project we will analyse India's current energy situation and future outlook, in view to investigating the potential for stronger EU-India cooperation in the field of sustainable energy.

Moreover, as in previous years, we will look into other neighbouring countries. One short analysis (blog post) on the reform of the Ukrainian energy market will also be written.

4. The geo-economics and geopolitics of energy transition (E4)

For a century, the geopolitics of energy has been synonymous with the geopolitics of oil and gas. However, geopolitics and the global energy economy are both changing. The international order predominant since the end of World War II faces mounting challenges. At the same time, renewable energy is growing rapidly, requiring very different raw materials than oil and gas. Nevertheless, the geopolitics of renewable energy has received relatively little attention so far, especially when considering the far-reaching consequences of a global shift to new clean energy technologies that require specific raw materials. This project investigates how the energy transition might reshape the global geoeconomics and geopolitics of energy, paying particular attention to the past, present and future potential evolutions of Europe's energy dependency and raw materials needed in the energy transition (for example for battery production).