Journal of Monetary Economics 147 (2024) 103673

Contents lists available at ScienceDirect

Journal of Monetary Economics

journal homepage: www.elsevier.com/locate/jme

# A research program on monetary policy for Europe*

Carlo Altavilla [a], Matthieu Bussière [b], Jordi Galí [c], Yuriy Gorodnichenko [d], Refet S. Gürkaynak [e,*], Hélène Rey [f]

[a] European Central Bank and CEPR, Germany
[b] Banque de France, France
[c] CREI, UPF, CEPR, and NBER, Spain
[d] University of California at Berkeley, CEPR, and NBER, USA
[e] Bilkent University, CEPR, CESIfo, and CFS, Turkey
[f] London Business School, CEPR, and NBER, UK

ARTICLE INFO

*Keywords:*
Monetary policy
European questions

ABSTRACT

European macroeconomies remain under-researched. There are compelling reasons for this to change. European issues pose significant economic challenges, are theoretically intriguing, and provide ample data for empirical studies. In this call to action, we outline a research program focused on monetary policy questions relevant for Europe.

## 1. Introduction

Europe, stretching from Iceland to the Caucasus, includes some of the world's largest economies and is one of its most populous regions. It also produces some of the finest economists. Despite this, research into European economic issues remains relatively underdeveloped. This paper is a call to action to enhance our understanding of Europe for monetary policy purposes.

To foster research on European monetary economics topics, a conference was held at the Banque de France in September 2023, organized by the Monetary Economics and Fluctuations program of CEPR (Refet Gürkaynak), Banque de France (Matthieu Bussière), and the ECB (Carlo Altavilla). Yuriy Gorodnichenko joined as an organizer and the editor of the JME special issue that hosts this paper alongside some of the papers presented at the conference after a refereeing process. Jordi Galí and Hélène Rey gave keynote speeches (Galí, 2023; Rey 2023) at the "Monetary Policy Challenges for European Macroeconomies" conference, offering research programs in the form of open questions for monetary economics research on European macroeconomies. The paper you are reading presents a unified summary of research topics on monetary economics that are important for Europe, based on the two keynotes and the papers presented at the conference and the discussion around them, as well as the issues identified by its authors.

Many of the questions raised are well known, many are important questions of monetary economics for any country. But our focus here is on Europe, with a desire to see these questions answered in the European context. We hope other researchers will similarly turn their attention to European issues. We are sure that other economists will identify monetary policy questions of importance for European macroeconomies that are not covered here and will work on them. We will be delighted to see that.

* These are the opinions of the authors and may not reflect those of the Eurosystem. We are grateful for ideas and comments to Philip Lane and participants of the CEPR-ECB-BdF Monetary Policy Challenges for European Macroeconomies conference.

* Corresponding author.
*E-mail address:* refet@bilkent.edu.tr (R.S. Gürkaynak).

https://doi.org/10.1016/j.jmoneco.2024.103673
Received 10 August 2024; Received in revised form 18 August 2024; Accepted 19 August 2024
Available online 28 August 2024
0304-3932/© 2024 Elsevier B.V. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

## 2. The euro area as a key unit of observation

Europe is more than just the European Union or the euro area, yet it is understandable that most monetary policy research on Europe centers on the European Central Bank (ECB). A strand of the literature focuses on the heterogeneous effects of ECB policy on member countries. While these are welcome contributions, an exclusive focus on heterogeneity overlooks the euro area as a legitimate unit of analysis. We argue for the importance of treating the euro area as the primary object of ECB policy. Just as analyses of Japanese monetary policy do not focus solely on its differential effects on Hokkaido and Okinawa, analyses of ECB policy should not be confined to its heterogeneous impacts on Portugal and Belgium.

It is instructive that the Euro Area Business Cycle Dating Committee no longer defines a recession as a slowdown in economic activity observable in "most countries of the euro area" but focuses on the euro area aggregate exclusively (EABCDC, 2024). The ECB does policy for the euro area aggregate and monetary economics research on euro area should prioritize this aggregate over the member countries. Individual countries' macroeconomic questions are certainly important and interesting but focusing on these should not come at the expense of correctly affiliating ECB policy with the euro area as a whole.

That effect may well depend on country composition and studies allowing for heterogeneity at the country level may be needed to understand aggregate transmission. In that regard the euro area is a natural candidate to be studied with HANK-type models both theoretically and empirically. The papers by Bilbiie et al. (2024) and Bayer et al. (2024) that were presented at the Paris Conference referenced above are good starting points for this. But heterogeneity is not exclusively at the level of countries. Geographically, regions within countries are worthy of study, as are sectors, bank networks, firms by size, households by wealth and income, and many other dimensions of heterogeneity. Europe provides the variation worthy of study and there are unparalleled data sources at the most granular levels of disaggregation for empirical work.

There are two ways of focusing on heterogeneity for ECB policy purposes. One is to study the heterogeneity arising from ECB policy, be it at the levels of countries, sectors, banks, firms, or household income levels, which treats the policy as essentially exogenous variation and the heterogeneity as the main object of analysis; the other is to study the heterogeneity to help understand the behavior of the euro area aggregate, essentially as an exercise of building up the observed euro area-level effects by aggregating up from the heterogenous units at various levels of granularity.[1] The former is certainly important and useful, but the latter is particularly relevant for our understanding of monetary policy in the euro area.

## 3. The European monetary economics research program

What we propose is a program on narrowly defined monetary policy, but research into European macroeconomies that inform policy in any way is most welcome. (The timely work on rebuilding Ukraine is a good example (Gorodnichenko et al., 2022)). Many of the questions we pose are not unique to Europe but are significant for policymakers globally. Having said that, learning and utilizing the appropriate institutional structures of and terminology for European policy making institutions is an important starting point, helping researchers appreciate the nuances these structures contribute to policy design, implementation, and outcomes. Unlike often assumed, policy and transmission structures elsewhere in the world do not directly translate into European ones.

In every European country and the euro area as a whole, central banks operate under legal mandates that define their objectives. Whether these objectives are optimally defined is an important research question in its own right. Optimal policy questions change as the environment within which monetary policy operates continues to change (e.g. Andrade et al, 2021). We concentrate on three areas of research given the policy mandates.

### *3.1. Policy instruments*

Monetary policy instruments have evolved significantly following the Great Financial Crisis of 2007-2008. Quantitative easing, negative interest rates, forward guidance, long-term refinancing operations, and targeted LTROs, collateral policies, swap lines, and yield curve control are among the monetary policy instruments used in many jurisdictions.[2] These instruments represent a departure from traditional monetary policy tools, such as short-term interest rate adjustments, to measures aimed at addressing the unique challenges posed by the GFC and its aftermath. In the recent past many central banks, including the ECB, conducted strategy reviews to assess and refine their monetary policies and frameworks. The strategy reviews also aimed to evaluate the effectiveness, efficiency, and potential side effects of the monetary policy instruments used in the so-called unconventional times. The same set of instruments were deployed during the COVID-19 pandemic. However, several unresolved questions remain regarding whether monetary authorities should continue using these instruments when lifting policy rates above their effective lower bound.

Some of the research questions we believe are promising include: Should these instruments be used outside of the effective lower bound (ELB)? Do they work symmetrically when tightening? Are monetary policy tools substitutable outside the ELB? At the ELB it was

[1] Cenzon and Szabó (2024), for example, find that past inflation experiences have a lasting impact on Eurozone households' mortgage choices. Chan et al. (2024) also study how household heterogeneity affect the transmission of an energy price shock.

[2] See Bernanke (2020) and Rostagno et al. (2021) for a more encompassing view on unconventional measures. For QE see: Gagnon at al. (2011), Krishnamurthy and Vissing-Jorgensen (2011), Altavilla et al. (2024), Andrade et al. (2016), Blot et al (2024), Odendahl et al. (2024); for forward guidance see: Campbell at al. (2012), Swanson and Williams (2014); for negative rages see: Rogoff (2016), Altavilla et al. (2022), Bottero et al. (2022); for TLTRO see: Benetton and Fantino (2021).

necessary to use a mix of instruments to ease. Should the tightening employ the same mix in reverse? Can one get the same macroeconomic outcomes with different combinations of policy tool deployment? If so, is one better in any sense?

Were we sufficiently imaginative in coming up with unconventional monetary policy tools? Are there other tools that may be used next time the ELB is binding? At what point are these tools of financial repression rather than of monetary policy? Are capital controls ever desirable monetary policy instruments? Does monetary policy have instruments appropriate for addressing supply shocks? Can we think of unconventional tools for this purpose? As an economic history exercise, would business cycles in the past have been smoother and inflation closer to target had we been employing the broad unconventional monetary policy toolkit then?

### 3.2. Policy transmission

Understanding monetary policy transmission at various levels of aggregation is a key component monetary economics research. We need to understand how monetary policy transmits at the level of individual economic agents at the most granular level and how this aggregates up to become the major macroeconomic moments that are in the mandates of central banks. Altavilla, Gürkaynak, and Quaedvlieg (2024) take a step in this direction for the euro area.

Some heterogeneity has only distributional consequences, which is important for political economy reasons as well as welfare, some other forms of heterogeneity may have first order effects that central banks are obliged to take into account. When do we see either kind of heterogeneity? Why? Are there policy options that have better distributional outcomes while having the same effectiveness for aggregate outcomes?

Particularly in the euro area, heterogenous transmission of monetary policy is an important concern. Is heterogeneity a function of households, firms (including banks), or sovereigns? Are these "cultural" effects, for example based on trust, or due to differences in legal systems favoring home ownership or floating rate mortgages, etc.? Are there regulatory decisions to be taken to lessen the heterogeneity? Is the heterogeneity undesirable to begin with?

Is policy transmission different when a central bank is changing policy rates by itself as opposed to concerted rate changes across the globe? Can European central banks outside the euro area have meaningfully different policy cycles than the ECB? Should they? Where exactly do European countries stand in the global financial cycle (Miranda-Agrippino and Rey, 2022)?

On a lower frequency, do demographics affect the transmission of monetary policy? Is money neutral in the long run? Does cyclical monetary policy have long-run effects? Do different systematic policy frameworks have different long-run effects?

### 3.3. Policy interactions

The effectiveness of monetary policy measures can depend on how they interact with actions by other policy authorities. Substitutability or complementarity across policy measures is an area that clearly needs further study.

Monetary policy and prudential policy have grown increasingly intertwined, particularly in light of recent financial crises and economic shocks.[3] Several key aspects of this interaction merit deeper exploration. The first is objective alignment. Low interest rates can stimulate economic activity but may also encourage excessive risk-taking by financial institutions. Understanding whether and to what extent central banks have to balance these concerns is an important policy question. The possibility and policy relevance of bubbles (Galí, 2014) is also under this heading.

The second aspect is macroprudential tools. These tools can complement monetary policy by mitigating the risks of financial instability that low interest rate environments might create. Examples include counter-cyclical capital buffers and leverage ratios. An important avenue of research is the effects of various tools, their interaction with monetary policy and the political economy of which institution should be using various tools, and under which mandates.

The third key aspect is transmission mechanisms. The effectiveness of monetary policy is influenced by the state of the financial system. During periods of financial stress, the transmission of monetary policy may be impaired, necessitating coordinated prudential measures to restore effectiveness. It may also be that using prudential measures for cyclical policy purposes reduces their effectiveness in controlling financial risks. Whether monetary policy works differentially under different financial conditions and if so, how policy should take these into account are questions of first order importance.

Overall, the interplay between monetary and prudential policies is complex and time varying. Effective management requires a nuanced understanding of how these policies influence each other and the broader economy, leading to robust frameworks for coordination between different policy makers. There are still important questions that need to be studied. Is banking regulation and supervision affecting the effectiveness of monetary policy actions? Are macroprudential measures affecting monetary policy transmission? In the euro area, as the capital markets union deepens, is the transmission of monetary policy changing? Does this have implications for the design of financial regulation with an eye towards increasing the effectiveness and optimal use of monetary policy? As a matter of institutional design, should monetary policy making and regulatory duties be under one roof or separated? These are questions that became particularly important first at the GFC then in the Spring of 2023 with the failure of Credit Suisse, as well as stress for other financial institutions.

[3] Some notable contributions include Peek et al. (1999), Freixas et al. (2015), Buch et al. (2017) and associated papers, and Gabarro et al. (2024).

The interaction between monetary policy and fiscal policy also remains a crucial aspect of economic management, with each playing distinct but complementary roles in influencing economic performance.[4] This is an important research avenue in any country but perhaps especially so in Europe, in the aftermath of the European Debt Crisis and the challenges presented by having a single monetary policy for 20 euro area members as well as many Emerging European countries that have fixed exchange rates and hence monetary policy that is external to them. The first and obvious area of study is debt dynamics and sustainability, and how these interact with monetary policy. Fiscal policy involving high public debt may limit monetary policy effectiveness. High debt levels might lead to higher interest rates as investors demand greater compensation for risk, complicating monetary policy efforts to stimulate activity. While these effects are clearly possible, the mechanisms and empirical evidence are to be further studied.

The second policy question is how best to respond at a time of crisis. In times of economic crisis, such as the global financial crisis or the COVID-19 pandemic, monetary and fiscal policy coordination have an urgency that is not present in normal times. How should one think of and model these crisis times? Is there a separate optimal policy mix during these periods? Do differential policy responses at crisis times distort incentives of private agents (and perhaps policy makers) in normal times?

The third area of research under this heading is whether distributional issues manifest themselves as policy questions differentially when fiscal policy is also available as a policy tool. How do heterogenous effects of monetary policy play out when taxes and transfers can be monetary policy dependent? Are there optimal fiscal policy designs that limit heterogeneity (is this desirable?), simple enough to be communicated and implemented, and feasible in terms of political economy? Would such fiscal policy actions also affect the aggregate effectiveness of monetary policy?

A final topic that is of major importance is that of long-term growth and structural policies. This is worthy of study both in terms of possible long-run effects of monetary policy and of implementation of structural reforms, such as labor market adjustments and regulatory changes, which often require a mix of fiscal support and accommodative monetary policy to be effective. Overall, the interaction between monetary and fiscal policy is complex and requires careful balancing to achieve desirable economic outcomes (Teles and Tristani, 2024). Should we be thinking differently about the optimal fiscal and monetary mix at long horizons compared to cyclically?

Other than these topics, the standard monetary-fiscal policy dependence questions remain worthy of research. As long as debt is sustainable, are there any constraints on monetary policy arising from fiscal considerations? What are the welfare and political economy costs of monetary offset of fiscal policy? Are there institutional structures that will minimize such costs? Which policies should react to energy price shocks, supply chain disruptions, and the like? If other policy makers are not rising to the occasion, should monetary policy try to take up the slack? Can social welfare maximizing monetary policy be sub-optimal (Davig and Gürkaynak, 2015) and if so, are there implementable optimal policy mandates for fiscal and monetary policymakers?

## 4. Conclusion

Europe is large and diverse, offering significant and intriguing monetary policy questions. Some of these are theoretical, requiring the application of existing models in ways best suited to European contexts, while others demand new theoretical approaches to understand phenomena observed in European macroeconomies. On the empirical side, the availability and quality of European data, both aggregate and granular, are excellent and conducive to research, aiding in answering applied questions. These questions await macroeconomists who are interested in them. Although there are many excellent macroeconomists with a broad interest in such issues, they often hesitate to explicitly address European matters. This hesitation likely stems from a fear of working alone, a classic example of coordination failure. We hope this call to action for monetary policy research on European questions will serve as a focal point, shifting choices of preferred research questions towards a more efficient and collaborative equilibrium.

## References

Altavilla, Carlo, Burlon, Lorenzo, Holton, Sarah, Giannetti, Mariassunta, 2022. Is there a zero lower bound? the real effects of negative interest rates. J. Financ. Econ. 144 (3), 885–907.
Altavilla, Carlo, Gürkaynak, Refet S., Quaedvlieg, Rogier, 2024. Macro and micro of external finance premium. J. Monet. Econ. *forthcoming*.
Altavilla, Carlo, Rostagno, Massimo, Schumacher, Julian , 2024. Quantitative (liquidity) tightening. mimeo.
Andrade, Philippe, Breckenfelder, Johannes, Fiore, Fiorella De, Karadi, Peter, Tristani, Oreste, 2016. The ECB's asset purchase programme: an early assessment. ECB Working Paper Series 1956.
Andrade, Philippe, Galí, Jordi, Bihan, Herve Le, Matheron, Julien, 2021. Should the ECB adjust its strategy in the face of a lower r*? J. Econ. Dyn. and Control 132, 1–23.
Bayer, Christian, Kriwoluzky, Alexander, Müller, Gernot J., Seyrich, Fabian, 2024. A HANK2 model of monetary unions. J. Monet. Econ. *forthcoming*.
Benetton, Matteo, Fantino, Davide, 2021. Targeted monetary policy and bank lending behavior. J. Finan. Econ. 142 (1), 404–429.
Bernanke, Ben S., 2020. The new tools of monetary policy. Am. Econ. Rev. 110 (4), 943–983.
Bilbiie, Florin O., Monacelli, Tommaso, Perotti, Roberto, 2024. Stabilization vs. redistribution: the optimal monetary-fiscal mix. J. Monet. Econ. *forthcoming*.
Blot, Christophe, Bozou, Caroline, Creel, Jérôme, Hubert, Paul, 2024. The conditionality of monetary policy instruments. J. Monet. Econ. *forthcoming*.
Bottero, Margherita, Minoiu, Camelia, Peydró, José-Luis, Polo, Andrea, Presbitero, Andrea F., Sette, Enrico, 2022. Negative monetary policy rates and portfolio rebalancing: Evidence from credit register data. J. Finan. Econ. 146 (2), 754–778.
Buch, Claudia, Bussière, Matthieu, Goldberg, Linda, 2017. International prudential policy spillovers: evidence from the international banking research network. Int. J. Cent. Bank. 13 (2), 1–4.

[4] Gabriel (2024) finds that winning procurement contracts boosts firm credit, investment, and employment, especially for smaller firms. Enders and Vespermann (2024) finds that a European unemployment benefit scheme (EUBS) has the potential to stabilize consumption and reduce unemployment when a region of a currency area is affected by an adverse shock.

Campbell, Jeffrey, Evans, Charles, Fisher, Jonas, Justiniano, Alejandro, 2012. Macroeconomic effects of Federal Reserve forward guidance. Brookings Papers on Economic Activity 43 (1), 1–80.
Cenzon, Josefina, Szabó, Barna, 2024. Mortgage choice and inflation experiences in the euro area. J. Monet. Econ. *forthcoming*.
Chan, Jenny, Diz, Sebastian, Kanngiesser, Derrick, 2024. Energy prices and household heterogeneity in a Gas-TANK. J. Monet. Econ. *forthcoming*.
Davig, Troy, Gürkaynak, Refet S., 2015. Is optimal monetary policy always optimal? Int. J. Cent. Bank. 11 (4), 353–382.
Enders, Zeno, Vespermann, David A., 2024. Cross-country unemployment insurance, transfers, and trade-offs in international risk sharing. J. Monet. Econ. *forthcoming*.
Euro Area Business Cycle Dating Committee (EABCDC), (2024, July 3), "Methodology", https://eabcn.org/dbc/about/methodology.
Freixas, Xavier, Laeven, Luc, Peydró, José-Luis, 2015. Systemic Risk, Crises, and Macroprudential Regulation. MIT Press, Cambridge, MA.
Gabarro, Marc, Irani, Rustom M., Peydró, José-Luis, Bekkum, Sjoerd Van, 2024. The real effects of borrower-based macroprudential policy: evidence from administrative household-level data. J. Monet. Econ. *forthcoming*.
Gabriel, Ricardo Duque, 2024. The credit channel of public procurement. J. Monet. Econ. forthcoming.
Gagnon, Joseph, Raskin, Mattew, Remache, Julie, Sack, Brian, 2011. The financial market effects of the Federal Reserve's large-scale asset purchases. Int. J. Cent. Bank. 7 (1), 3–43.
Galí, Jordi, 2014. Monetary policy and rational asset price bubbles. Am. Econ. Rev. 104 (3), 721–752.
Galí, Jordi, 2023. Monetary economics and the euro area: Some thoughts on research directions. Keynote Speech presented at Monetary Policy Challenges for European Macroeconomies Conference. Paris, France.
Gorodnichenko, Yuriy, Ilona, Sologoub, Beatrice, Weder di Mauro, 2022. Rebuilding Ukraine: Principles and Policies. CEPR Press, London.
Krishnamurthy, Arvind, Vissing-Jorgensen, Annette, 2011. The effects of quantitative easing on interest rates: Channels and implications for policy. Brookings Papers on Economic Activity 42 (2), 215–287.
Miranda-Agrippino, Silvia, Rey, Hélène, 2022. The global financial cycle. Handbook of International Economics 6, pp. 1–43. Gita Gopinath, Elhanan Helpman and Kenneth Rogoff (eds.).
Odendahl, Florens, Pagliari, Maria-Sole, Penalver, Adrian, Rossi, Barbara, Sestieri, Giulia, 2024. Euro area monetary policy effects. Does the shape of the yield curve matter? J. Monet. Econ. *forthcoming*.
Peek, Joe, Rosengren, Eric S., Tootell, Geoffrey M.B., 1999. Is bank supervision central to central banking? Q. J. Econ. 114 (2), 629–653.
Rey, Hélène, 2023. Monetary policy challenges for European "macroeconomies". In: Keynote Speech presented at Monetary Policy Challenges for European Macroeconomies Conference. Paris, France.
Rogoff, Kenneth, 2016. The Curse of Cash. Princeton University Press, Princeton, NJ.
Rostagno, Massimo, Altavilla, Carlo, Carboni, Giacomo, Lemke, Wolfgang, Motto, Roberto, Guilhem, Arthur Saint, Yiangou, Jonathan, 2021. Monetary Policy in Times of Crisis: A Tale of Two Decades of the European Central Bank. Oxford University Press.
Swanson, Eric, Williams, John, 2014. Measuring the effect of the zero lower bound on medium- and longer-term interest rates. Am. Econ. Rev. 104 (10), 3154–3185.
Teles, Pedro, Tristani, Oreste, 2024. The monetary financing of a large fiscal shock. J. Monet. Econ. *forthcoming*.