Research News 2023

Research Division at Sveriges Riksbank

SVERIGES RIKSBANK

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This newsletter describes the research activities and output of the Research Division at Sveriges Riksbank in 2023.

Staff at the Research Division

Niklas Amberg, senior economist

Christoph Bertsch, senior economist

Roberto Billi, advisor

Marianna Blix Grimaldi, advisor

Cristina Cella, advisor

Daria Finocchiaro, advisor

Anna Grodecka-Messi, senior economist

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Mathias Klein, senior economist

Jesper Lindé, advisor (on leave)

Conny Olovsson, advisor (on leave)

Anna Rogantini Picco, economist (on leave)

Ettore Savoia, economist

Valentin Schubert, economist

Ulf Söderström, head of research

Klara Strömberg, research assistant

Lena Sundvall, assistant

Andreas Westermark, advisor

Xin Zhang, advisor

Reflections by the Head of Research

2023 was an eventful year at the Research Division. At the division we hired three researchers on the job market, a process that is always very stimulating but also time-consuming. We were very happy to welcome Ettore Savoia and Valentin Schubert to the division in September, and also to welcome Anna Grodecka-Messi back to the division. We also hired a new research assistant, Klara Strömberg, and we hosted a total of ten PhD interns over the year.

During the year we organized five research conferences and workshops at the bank, and research staff were involved in organizing several events outside the Riksbank. While it takes a lot of work to organize a research conference, it is always very stimulating to attend the conference and take part of the discussions.

2023 was also another year of successful research publications in top economics and finance journals. Staff at the division had papers accepted for publication in, for instance, the Journal of Monetary Economics, the Journal of International Economics, and the Review of Financial Studies. One of these papers, ”Optimal Monetary Policy with $r^* < 0$”, was written by Roberto Billi together with Jordi Galí and Anton Nakov, and was published in the Journal of Monetary Economics. This is also our featured article in the Research News this year.

In January 2023, Erik Thedéen took over as Riksbank Governor after Stefan Ingves, who spent 17 years as Governor. Staff at the Research Division had several productive meeting with the new Governor over the year, and we are looking forward to working together in the coming years.

As usual, our Research News also features an interview with a prominent researcher. This year we are happy to have an interview with Hélène Rey, Lord Bagri Professor of Economics at the London Business School. Hélène talks about the role of financial markets and globalization for the business cycle and monetary policy, and also about her own work to support other female researchers in the economics and finance professions.

With this, I wish you a good read of our Research News, happy holidays and a happy and productive 2024!

Ulf Söderström

Interview with Hélène Rey

Lord Bagri Professor of Economics, London Business School

A common thread of your work is the role played by financial markets in international business cycles. What are the implications of financial globalization for monetary policy in a small open economy like Sweden?

I have been doing research on the international financial and monetary spill overs of monetary policies of Central Banks of large currency areas. The US Federal Reserve monetary policy in particular has large and global effects due to the international use of the dollar. It contributes to the emergence of a Global Financial Cycle. Countries' exposure to global financial conditions has an important effect on their ability to conduct an effective independent monetary policy. There is no "divine coincidence" which would guarantee that international financial conditions and domestic monetary authorities' objectives are aligned. As a result, central banks in emerging markets and advanced economies alike may face exuberant international investors at a time where they are trying to tighten monetary policy at home. Vice versa, they may be unable to find funding when they are attempting to expand demand domestically. The most appropriate policies to support monetary and financial stability for a small open economy like Sweden seem therefore to complement the existing credible inflation targeting framework with a set of macroprudential policies tailored to the country's circumstances and institutional and legal framework. A wealth of experience has been acquired in the recent years – including in Sweden – on the effectiveness of different tools (from LTV to DSTI ratios for the real estate market, to the activation of sectoral and countercyclical buffers, etc.). We need to take stock, learn from experiences around the world and integrate monetary policy and macroprudential tools in a single analytical framework. Such a set of complementary policies should help increase the passthrough and effectiveness of monetary policy to the corporate, household and mortgage markets as well as guarantee financial stability as much as possible.

In your most recent work, you applied machine-learning techniques to predict financial crises. What are the advantages and disadvantages of using non-structural methods to study such complex phenomena? What can we learn from your work on the economic mechanisms behind systemic risk?

In my recent work, "Answering the Queen: Machine Learning and Financial Crises" (with Fouliard, Howell and Stavrakeva) and "Is this Time Different? Financial Follies Across Centuries" (with Fouliard and Stavrakeva) I use online learning, which is a model aggregation technique to forecast systemic pre-crises. We forecast systemic crises three-year ahead out-of-sample in order to allow time for macroprudential policies to be put in place. Crises have many different causes that may vary over time and across countries. This might explain why the literature on early warning indicators have proved to be not so robust for out-of-sample predictions. Many of our theories of crises have a grain of truth. This is why the online learning methodology which aggregates models with time varying weights to optimize out-of-sample forecasting is very promising. It allows us to outperform the literature "by construction" as if any existing model performs well, its weight will be close to one in the aggregator and therefore we will do at least as well as this model. Another great advantage is that this methodology enables us to "crowd-source" models from the wider community. We can always include new models in our set of experts on which we rely to construct our optimal aggregator. And we can incorporate any type of models, from logits to neural networks to human experts. Our method is designed to produce the best possible forecast out-of-sample in an environment where there can be many non-linearities and structural changes; there is no notion of causality involved. Nevertheless, by looking at which model is assigned a high weight in the forecast, we may get an informal clue of where imbalances are in the economy. If, for example, it is a set of models with real estate variables that give a signal, this should prompt the macroprudential authority to investigate further, with granular data, what is happening in the real estate market. It can then exercise some judgement and possibly take some action.

Many of your seminal papers have challenged conventional wisdom in international economics – with your research you always go after the "big issue". What is the next big economic policy challenge in an interconnected world, and what can researchers do to prepare policymakers for these challenges?

I am currently fascinated by the possible "rewiring" of the world economy due to the climate transition and changes in technologies as well as due to geopolitical changes. I have started some work with Silvia Miranda-Agrippino and Tsveti Nenova on different networks of the world economy, some based on trade linkages, some based on financial linkages. I am exploring which differences changes in these networks may make for international transmission of shocks. My work with Pierre-Olivier Gourinchas on the international monetary system and its structural changes also fits in this theme and may well have something to say about equilibrium real rates. I think researchers have to try to think through the important structural changes of the global economy, which are occurring, or about to occur. They will affect policies. The question is how?

You are leading the CEPR Women in Economic initiative, why do you think is important to address gender imbalance in our profession and what is the CEPR currently doing in this matter?

I am very proud of the CEPR Women in Economic initiative. It is so clear that we need many great minds to navigate the very complex economic policy questions that we are currently facing. And among these great minds we need all the women. We publish on our website the statistics regarding women presence in research institutions, academia and central banks at the junior, associate and senior level. And unfortunately these statistics are not moving much! This has to change. CEPR organizes virtual seminars with junior women presenting their work, hosted by senior women, coaching sessions in collaboration with very vibrant groups at the EEA (WinE), CSWEB (AEA) or the Royal Economic Society. We organise women conferences and we posted on the CEPR website some fantastic videos of top women in many different fields discussing their work, as role models are important. We also track the data on professional progression of women and publicize relevant research. We did an e-book on women in economics and also posted a wonderful video "Sidelined in Science" by Marieke Bos detailing recent research on roadblocks facing women in finance and economics. We want to do more!

Since 2021 you have been involved in organizing the conference "WE_ARE_IN Macroeconomics and Finance". The conference, this year hosted by the Riksbank, brings together female experts to discuss new research on macroeconomics and finance. What is the purpose of such a conference?

We had an extremely successful and wonderful conference at the Riksbank this year, after two great conferences at the ECB (virtual) and the BIS. There was so much positive energy, so many links being created or strengthened and top quality research being presented. There was also a very high-level panel on Central Banking and climate. The feedback given on research was constructive, top notch, and, as a constant in WE_ARE_IN conferences, there was a lot of nice laughing in the audience and a relaxing atmosphere. I think after such a conference, we all feel we know many more amazing women working in economics, policy and academia, we see some great research and we feel recharged. At least this is how I feel. I hope that my young colleagues also find that theses conferences make their professional lives easier and more attractive.

Based on your personal experience, do you have any advice for women in our profession?

Keep working hard on issues that are important for society – many women do just that – and things will work out. The world needs you.

Changes in the research staff

Anna Grodecka-Messi, **Ettore Savoia** and **Valentin Schubert** joined the Research Division in September, while **David Vestin** left to become Deputy Head at the Monetary Policy Department. Our research assistant **Edvin Ahlander** joined the PhD program at Stockholm University, and was replaced by **Klara Strömberg**. **Xin Zhang** returned to the division after one year at the BIS Innovation Hub, **Stefan Laséen** returned to the Monetary Policy Department, and **Cristina Cella** joined from the Financial Stability Department. **Daria Finocchiaro** returned from a leave at the ECB, **Conny Olovsson** is still on leave at the ECB, and **Anna Rogantini Picco** took leave for a position at the ECB. Finally, **Federico Ravenna** and **Roine Vestman** left us after concluding temporary positions at the division.

Featured article

*The following is a summary of the article **Optimal Monetary Policy with r* < 0** by **Roberto Billi** (Sveriges Riksbank), **Jordi Galí** (CREI, UPF and BSE) and **Anton Nakov** (ECB). The article was published in the Journal of Monetary Economics in September 2023.*

Over the past decade, a growing consensus has emerged among academic economists and policymakers pointing to a substantial decline in the *average natural rate of interest*, often referred to as r-star or r^*. Some of the likely sources of that decline include lower productivity growth, demographic factors, greater inequality, and precautionary savings facing higher uncertainty. If the trends in some of the fundamental forces behind the recent decline in the natural rate of interest were to persist or even strengthen further, the relevance of a negative r^*, that is $r^* < 0$, can hardly be dismissed as a real possibility in a not too distant future. Not surprisingly, the evidence of a decline in r^* has been a key motivation behind the monetary policy strategy reviews undertaken by many central banks in recent years.

A low r^* will generally hamper the ability of monetary policy to stabilize the economy during recessions, due to the presence of an *effective lower bound* (ELB) on the nominal interest rate. While the assumption of a negative r^* is at odds with the predictions of the standard macro framework with an infinite-lived representative consumer, it can be microfounded once the latter assumption is relaxed. Thus, for instance, models with overlapping generations, or heterogeneous agents and idiosyncratic shocks, can generate a negative r^* under certain parameterizations. As much of the related literature, we cast our analysis of the optimal monetary policy problem in the context of an otherwise standard New Keynesian model subject to an ELB constraint and a central bank loss function characterized by a conventional dual mandate. A number of interesting results emerge from our analysis.

Focusing first on the deterministic case, that is in the absence of shocks buffeting the economy, we show that in response to an unanticipated decline in r^* which brings the latter *permanently* into negative territory, the optimal monetary policy aims at steering the economy *gradually* towards a new steady state characterized by positive average inflation. The policy interest rate remains at the ELB during the transition to the higher optimal inflation rate. The choice of a gradual transition (rather than an immediate jump to the new steady state) makes it possible for inflation to remain closer to zero – its efficient value – for a longer period, which is welfare improving for society.

Next, we solve for the paths of inflation and the output gap implied by the optimal (second-best) policy in the presence of fluctuations in the natural rate of interest around $r^* < 0$. Not surprisingly, the presence of the ELB constraint prevents the central bank from fully stabilizing inflation and the output gap, so the first-best outcome cannot be attained. Most interestingly, we show that if either the volatility of the natural rate is not too large or if r^* is low enough, then the optimal policy implies a persistently binding ELB constraint. Behind the appearance of extreme passivity of monetary policy as suggested by a near-constant policy rate at the ELB, however, there is still a meaningful optimal policy problem facing the central bank, which yields unique optimal paths for inflation and the output gap.

We describe one particular way in which the central bank can implement the optimal (second best) policy. More specifically, we propose a nonlinear and state-contingent policy rule consistent with the ELB. Such a policy rule calls for one-sided adjustments in the nominal interest rate in response to potential (off-equilibrium) deviations from the desired inflation and output gap paths. In order to establish the implementability of those paths as a unique equilibrium under the proposed rule, we derive and exploit a sufficient condition for local determinacy for a relatively general class of models with *endogenous regime switches*. We believe the latter finding has some independent interest, beyond the application at hand, and complements existing results in the literature for exogenous regime switching models.

Research projects pursued in 2023

CREDIT AND BANKING

Banking Without Branches

Niklas Amberg and Bo Becker

Widespread use of digital retail bank services has dramatically reduced the need for bank branches. However, in business lending, where technology has had less of an impact, branch closures may reduce the availability of bank loans and other services. Using the closing of two thirds of Swedish branches as a laboratory, we document that corporate lending declines sharply and rapidly following branch closures, mainly via reduced lending to small and young firms. We also find large effects on the real economy: employment and the number of firms in a municipality declines substantially after branch closures, primarily as a consequence of lower firm entry. Our results thus suggest that the disappearance of bank branches have far-reaching implications for the economy.

(New project)

Do Credit Lines Provide Reliable Liquidity Insurance? Evidence from Commercial-Paper Backup Lines

Niklas Amberg

Commercial-paper backup lines account for a substantial share of undrawn loan commitments in the corporate sector, but have despite this received scant attention in the credit-line literature. In this paper, I study the liquidity-insurance properties of backup lines using a comprehensive loan- and security-level dataset and the sharp contraction of the Swedish commercial-paper market during the COVID-19 pandemic as an exogenous shock to the supply of market-provided liquidity. I find that backup lines provide commercial-paper issuers with reliable liquidity insurance and that banks' liquidity provision via commercial-paper backup lines in periods of distress does not crowd out lending to other firms.

(Continuing project)

Why Trade Credit?

Niklas Amberg, Tore Ellingsen, Tor Jacobson and Erik von Schedvin

Why do firms rely more on trade credit as they become more financially constrained? Data comprising 21 million invoices from 46 suppliers to 126,000 different business customers largely reject financial pecking-order theories. For example, contracted trade credit duration is independent of the customer's creditworthiness, and overdue payments only account for a sixth of the variance in customers' trade debt. Instead, we find evidence that more financially constrained firms tend to choose ``buying'' over ``making'': (i) The wage share of input costs is increasing in firms' credit rating. (ii) Within-industry purchases are more sensitive to financial constraints than are between-industry purchases.

(Continuing project)

Financing Trade Credit

Niklas Amberg, Tor Jacobson and Yingjie Qi

The increasing maturity of trade credit in recent years puts suppliers under increasing uncertainty and financial constraints. Using novel invoice-, contract-, and firm-level data, this paper studies how a recent financial innovation—Supply Chain Finance (SCF)—reduces suppliers' financial constraints and improves supply-chain efficiency. We compare SCF with traditional factoring and document its effects. Both suppliers and buyers reduce their borrowing of bank debt. While suppliers see an increase in sales and investment, buyers are largely unaffected. Overall, the evidence suggests that SCF increases supply-chain efficiency, but it also raises concerns about hidden debt.

(Continuing project)

Dynamic Credit Constraints: Theory and Evidence from Credit Lines

Niklas Amberg, Tor Jacobson, Vincenzo Quadrini and Anna Rogantini Picco

We use a comprehensive Swedish credit register to document that firms throughout the size distribution have access to fairly large and reasonably priced credit lines, but borrow relatively little from them. We rationalize this using a theoretical framework in which the expected cost of financial distress increases with current borrowing and lower credit-line utilization reflects tighter `dynamic' credit constraints. Consistently with the predictions of the model, firm-level uncertainty is negatively related to credit-line utilization in the data. We also find that firms increase borrowing in response to credit-limit increases, even when their current debt is far from the limit.

(Continuing project)

Is Flood Risk Priced in Bank Returns?

Valentin Schubert

I quantify the costs of realized flood disasters for banks and create a novel measure of bank-level flood risk exposure using expected flood risk estimates and mortgage lending data. I document that banks with large shares of mortgages in affected areas experience lower profits and capital ratios following flood disasters. In the cross-section of stock returns, small banks with high exposure to flood risk underperform other banks, on average, by up to 2.6% per year; this implies that exposure to flood is not fully priced. Underperformance persists when controlling for the negative effects of disasters on realized returns and adjusting for investors' climate change concerns. The findings support regulatory concerns that bank equity is exposed to physical risk from climate change.

(New project)

Recovery Lending after Natural Disasters

Valentin Schubert

This paper examines how banks' incentives to internalize the negative spillovers from natural disasters affect their credit lending. Using data on small business loans and damage estimates from natural disasters, I find that banks with a large lending share in a local market provide more credit to small firms during the recovery periods than other banks. This finding implies that banks recognize the benefits of alleviating liquidity constraints for distressed borrowers, which lowers their default risk and preserves future business opportunities. Furthermore, I document that disaster-affected local areas with high-lending-share banks experience higher employment growth than other disaster-affected areas. The paper underscores the importance of bank lending in disaster recovery and resilience.

(New project)

Exposure to Local Housing Markets and Bank Performance

Valentin Schubert and Martin Waibel

We uncover a robust positive relationship between a bank's share of retained mortgages and subsequent bank performance. This relation is time-varying and depends on the business cycle. During crises, when house prices decline and delinquencies increase, high-retained-share banks report higher profitability than other banks. The relation is reversed during expansion periods when house prices rise and delinquencies are typically low. We provide evidence that banks' internalization of fire sale externalities acts as a main channel with important real effects: high-retained-share banks originate higher loan volumes at more favorable terms and indirectly affect the performance of banks active in the same region. Further evidence confirms that this channel is different from alternative explanations based on market power, relationship effects, diversification, or informational benefits.

(New project)

ECONOMETRICS

Quantitative Easing, Bond Risk Premia and the Exchange Rate in a Small Open Economy

Jens Christensen and Xin Zhang

We assess the impact of large-scale asset purchases, commonly known as quantitative easing (QE), executed by Sveriges Riksbank and the European Central Bank (ECB) on bond risk premia in the Swedish government bond market. Using a novel arbitrage-free dynamic term structure model of nominal and real bond prices that accounts for bond-specific safety premia, we find that Sveriges Riksbank's bond purchases raised inflation and short-rate expectations and the natural real rate, lowered nominal and real term premia as well as inflation risk premia, and increased nominal bond safety premia, suggestive of signaling, portfolio rebalance, and safe asset scarcity effects. Furthermore, we document spillover effects of ECB's QE programs on Swedish bond markets that are similar to the Swedish QE effects only after controlling for exchange rate fluctuations, highlighting the importance of exchange rate dynamics in the transmission of QE spillover effects.

(Continuing project)

FINANCIAL THEORY

Bank Fragility and the Incentives to Manage Risk

Toni Ahnert, Christoph Bertsch, Agnese Leonello and Robert Marquez

Recent bank failures have highlighted the important role played by depositor withdrawals, and by the value of banks' assets at the time those withdrawals need to be met. Using a standard bank run model, we show that negative shocks to the interim value of bank assets lead to greater coordination failures among depositors and, hence, to a higher likelihood of a run on the bank. In this context, we show that, even when shocks are fully anticipated, banks may choose not to engage in any risk management activities, which could increase the interim value of their assets and, in turn, reduce exposure to run risk. These risk management failures are most prevalent when managing risk would be especially valuable, that is, when the realization of the interim asset value and fragility are most extreme.

(New project)

Stablecoins: Adoption and Fragility

Christoph Bertsch

This paper analyzes the factors influencing the adoption of stablecoins and their susceptibility to runs, offering insights for risk assessment and appropriate regulation, as well as new testable implications. When payment preferences are heterogeneous, a wider adoption of stablecoins is associated with a destabilizing composition effect. Positive network effects mitigate the destabilizing composition effect, but may undermine the role of bank deposits in payments. Since the marginal adopter of stablecoins does not internalize these effects, the regulatory concern about excessive adoption is justified. The introduction of a portfolio choice by the stablecoin issuer and moral hazard provide additional lessons for reserve management and disclosure. Factors that increase the issuer's income from fees and seigniorage promote stability, as do congestion effects. A stablecoin lending market promotes both stability and adoption, if it is not undermined by speculation.

(Continuing project)

Optimal Bank Leverage and Recapitalization in Crowded Markets

Christoph Bertsch and Mike Mariathasan

We study optimal bank leverage and recapitalization in general equilibrium when the supply of specialized investment capital is imperfectly elastic. Assuming incomplete insurance against capital shortfalls and segmented financial markets, ex-ante leverage is inefficiently high, leading to excessive insolvencies during systemic capital shortfall events. Recapitalizations by equity issuance are individually and socially optimal. Additional frictions can turn asset sales individually but not necessarily socially optimal. Our results hold for different bankruptcy protocols and we offer testable predictions for banks' capital structure management. Our model provides a rationale for macroprudential capital regulation that does not require moral hazard or informational asymmetries.

(Continuing project)

FISCAL POLICY

Seemingly Irresponsible but Welfare Improving Fiscal Policy at the Lower Bound: The Role of Expectations

Roberto Billi and Carl Walsh

We evaluate super-active fiscal policy rules that cut taxes or increase spending as the government's debt level rises. Using a standard New Keynesian model subject to an occasionally-binding zero lower bound on the monetary policy interest rate and a model-consistent measure of welfare, we show that such seemingly irresponsible fiscal rules can improve economic welfare. While sensible fiscal policy and active monetary policy perform best away from the ZLB, the fiscal rules we analyze significantly reduce the time spent at the ZLB and produce overall welfare gains. Super-active fiscal policies are most effective with a high debt target and when debt is short-term. However, this ranking of policy regimes depends critically on how expectations are formed. When private expectations are characterized by cognitive discounting, the performance of super-active fiscal rules deteriorates. Fiscal rules calibrated to the U.S. response during both the Great Recession and COVID recession, combined with a weak monetary policy response to inflation, outperform a monetary policy that responds strongly to inflation and reduce the frequency of ZLB episodes under rational expectations, but not under cognitive discounting.

(Continuing project)

Inflation Targeting or Fiscal Activism?

Roberto Billi

I study the welfare performance of a policy regime of fiscal activism in which fiscal policy acts as an automatic stabilizer and controls inflation, while monetary policy pegs the nominal interest rate. When evaluated through the lens of a standard New Keynesian model, accounting for price and wage rigidities and for a zero lower bound (ZLB) on the nominal interest rate, fiscal activism can substantially outperform inflation targeting in the face of both demand shocks and technology shocks. Fiscal activism can also eliminate the occurrence of ZLB episodes.

(Continuing project)

Who is Afraid of Eurobonds?

Francesco Bianchi, Leonardo Melosi and Anna Rogantini Picco

The current Euro Area policy framework exposes its members to the opposite risks of deflation and high inflation because it does not separate the need for short-run macroeconomic stabilization from the issue of long-run fiscal sustainability. We study a new policy framework that addresses this deficiency. A centralized Treasury issues Eurobonds to finance stabilization policies, while national governments remain responsible for the country-level long-term spending programs. The centralized Treasury can run larger primary deficits during recessions, followed by primary surpluses during expansions. However, following an exceptionally large contractionary shock, the centralized Treasury can coordinate with the monetary authority to reflate the economy and avoid the zero lower bound. The policy acts as an automatic stabilizer and removes the risk of deflation. At the same time, the proposed policy framework removes the risk of high inflation and fiscal stagflation because it does not require suspending the fiscal rules designed to preserve long-run fiscal sustainability.

(Continuing project)

The Signaling Effects of Fiscal Announcements

Leonardo Melosi, Hiroshi Morita, Anna Rogantini Picco and Francesco Zanetti

Fiscal announcements may transfer information about the government's view of the macroeco- nomic outlook to the private sector, diminishing the effectiveness of fiscal policy as a stabilization tool. We develop a simple model that transparently outlines conditions and key properties of the signaling effect and guides our empirical tests, and we show that results hold in a standard microfounded model. We construct a novel dataset that combines daily data on Japanese stock prices with narrative records from press releases about a set of extraordinary fiscal packages introduced by the Japanese government from 2011-2020. We show that these fiscal stimuli were often interpreted as negative news by the stock market whereas exogenous fiscal interventions that do not convey any information about the business cycle (e.g., the successful bids to host the Olympics on September 8, 2013) fostered bullish reactions. In addition, these negative effects on stock prices arose more commonly when fiscal stimuli were announced against a backdrop of heightened macroeconomic uncertainty. Our empirical findings support the theory of signaling effects.

(New project)

Fiscal Policy, International Spillovers, and Endogenous Productivity

Klein Mathias and Ludger Linnemann

The paper presents empirical evidence on the international effects of US fiscal policy from structural vector autoregressions identified through external instruments in a panel setting for the G7 countries. An exogenous increase in US government spending is estimated to produce sizeable positive responses of output and consumption in the rest of the G7 countries, both about half as large as their domestic US counterparts, while strongly depreciating the US terms of trade and lowering the US trade balance and short-run real interest rates. Moreover, fiscal shocks are estimated to have a strongly positive impact on hourly labor productivity in the private sector. We solve a two-country New Keynesian model in closed form and show that a low cost elasticity of varying technology utilization can simultaneously explain the positive productivity, consumption and international spillover effects as well as the real depreciation resulting from expansionary US government spending shocks.

(Continuing project)

HOUSEHOLD FINANCE AND SAVINGS

Mortgage Shortfall and Financial Constraints: Borrowers' Response under Full Recourse

Anna Grodecka-Messi

In this paper, the causal effect of news about mortgage shortfall under full recourse is evaluated. Around the turn of the 21st century, a large part of U.K. mortgagors holding a specific alternative mortgage product called an endowment mortgage found out that their mortgage will be underwater in the future. I compare their subsequent behaviour to that of unaffected borrowers with repayment mortgages and show that in response to the shock, endowment mortgagors increased their labor supply and reduced alternative investments in an attempt to avoid the realization of the negative equity scenario.

(Continuing project)

Riding the Housing Wave: Home Equity Withdrawal and Consumer Debt Composition

Anna Grodecka-Messi, Jieying Li and Xin Zhang

Using a monthly panel dataset of individuals' debt, we show that house price changes can explain a significant fraction of personal debt composition dynamics. We exploit the variation in local house price growth as shocks to homeowners' housing wealth to study the consequential adjustment of debt portfolio. We present direct evidence that homeowners re-optimize their debt structure by using withdrawn home equity to pay down comparatively expensive short-term non-mortgage debt during a housing boom. The effect is strongest for homeowners with high debt-to-income ratios and in municipalities with high literacy levels.

(Continuing project)

Business Education and Portfolio Returns

Adam Altmejd, Thomas Jansson and Yigitcan Karabulut

We provide evidence of a positive causal link between financial knowledge acquired through business education and returns on stock investments. Using exogenous variation generated by admission thresholds to university business programs in Sweden, we document that early investments in financial sophistication causes individuals to invest significantly more in the stock market, to earn higher portfolio returns, and to end up accumulating higher levels of wealth. Investments in financial sophistication at the launch of economic life thus significantly alters the life cycle wealth profiles of individuals.

(Continuing project)

Wealth Inequality: Opportunity or Unfairness?

Michael Haliassos, Thomas Jansson and Yigitcan Karabulut

This paper presents evidence for a new propagation mechanism of wealth inequality. Motivated by cross-country survey evidence, it uses unique administrative microdata and a quasi-field experiment of exogenous assignment to test the hypothesis that, in the presence of significant opportunities for wealth mobility, the more educated respond to greater wealth inequality at the start of economic life by taking more financial, real, and self-employment risks and achieving higher wealth, thereby propagating wealth inequality. We find no evidence for alternative channels of propagation through labor income, unemployment risk, or human capital investment, nor for inspiration, imitation, or learning from the rich.

(Continuing project)

Individual Investor Behavior and Sustainability

Thomas Jansson and Vicke Norén

This paper investigates whether a change in a company's sustainability performance affects the propensity to hold stocks of the company. Using an administrative panel of individual investors in Sweden allows us to control for a rich set of socioeconomic and portfolio characteristics. We find that the average investor is more likely to offload stocks of companies that have worsened sustainability performance, especially if environmental issues are managed poorly. Investor reaction is particularly strong among less wealthy investors with a lower level of education, as well as for large firms and popular stocks. The findings are robust to plausible alternative hypotheses.

(Continuing project)

LABOR MARKETS

Dynamic Macroeconomic Implications of Migration

Conny Olovsson, Karl Walentin and Andreas Westermark

International migration flows are large, volatile and have increased in the recent period. As one of the first papers, we study the dynamic effects of immigration shocks on the economy within a search and matching framework. Since many of the macroeconomic effects of immigration are largest in the short run, a steady state analysis would be insufficient. To construct a quantitatively relevant general equilibrium framework, extensive Swedish microdata is used. We then study the effect of a large migration shock on various macroeconomic aggregates. The effect on GDP per capita and the employment rate is substantial on impact, and then decreases over time.

(Continuing project)

Skill Loss, Job Mismatch and Slow Recovery from Large Recessions

Karl Walentin and Andreas Westermark

In this project we ask to what degree i) human capital dynamics induced by skill loss during unemployment and ii) decrease in match quality contributed to the slow recovery from large recessions, in particular the low post-2009 growth in GDP, employment, labor productivity and real wages following the Great Recession. Match quality has decreased because of the sullying effect of the recession that follows from reduced hiring activity and the resulting collapse of the job ladder. We find that the increase in unemployment during the initial phase of the Great Recession had long-lasting effects through the skill loss it induced, mainly in terms of increased unemployment and reduced GDP. We also find that persistence is important for the results. An equally sized shock that is less persistent has substantially smaller effects on GDP and employment.

(Continuing project)

MACROECONOMICS

Pension Reform and Wealth Inequality: Theory and Evidence

Torben M. Andersen, Joydeep Bhattacharya, Anna Grodecka-Messi, Katja Mann

A growing literature explores reasons for rising wealth inequality, but is mostly silent on the role of pension systems despite their well-understood influence on life-cycle savings. This paper develops a simple life-cycle model to lay bare the primary theoretical mechanisms connecting pension systems, asset accumulation, and the wealth distribution. Mandated fully-funded plans transform individuals with lower incomes, often characterized as low savers, into asset owners, and may also imply a more equal wealth distribution than pay-as-you-go-based systems. To test the empirical validity of these predictions, the paper explores a pension reform in Denmark, a country that witnessed declining wealth inequality over the last decades. In a calibrated life-cycle model employing unique register data, the Danish pension reform emerges as a key factor explaining the downward trend in wealth inequality.

(Continuing project)

Measuring the Impact of Taxes and Public Services on Property Values: A Double Machine Learning Approach

Anna Grodecka-Messi and Isaiah Hull

How do property prices respond to changes in local taxes and local public services? Attempts to measure this, starting with Oates (1969), have suffered from a lack of local public service controls. Recent work attempts to overcome such data limitations through the use of quasi-experimental methods. We revisit this fundamental problem with a novel dataset of 947 time-varying local characteristic and public service controls for all municipalities in Sweden over the 2010-2016 period. We use two different approaches to deal with the high dimensionality of the set of controls and recover tax capitalization estimates: principal components regression and double machine learning (Chernozhukov et al., 2017). We also exploit the exhaustive coverage of local public services and high degree of time and geographic variation in our dataset to resolve two outstanding questions in the literature. First, we demonstrate that tax capitalization is stronger in areas with greater municipal competition, providing support for a core implication of the Tiebout hypothesis. And second, we measure the impact of education on house prices and show that it is positive for outputs (grades), but negative for inputs (spending per pupil).

(Continuing project)

Not All Supply Curves Slope Up

Edvin Ahlander, Mathias Klein and Evi Pappa

We compile a unique firm-level data set containing information on prices and real output at the monthly frequency for a sample of Swedish industrial firms for more than 20 years and use it to estimate the short and medium run responses of prices and quantities to exogenous demand shocks. Inference on the supply slope is based on an IV regression of cumulative price growth on cumulative sales using global demand shocks as instruments. Not all supply curves slope upwards. The supply curve is flatter for firms with low market shares, low productivity, high unit labor costs and for exporting firms. The slope of the supply curve depends also on the aggregate state of the economy: individual supply curves are steeper in times of high capacity utilization, high inflation and of low financial volatility.

(New project)

The Inflationary Effects of Global Supply Chain Shocks: Evidence from Swedish Microdata

David Finck, Mathias Klein and Peter Tillmann

We compile a unique dataset linking micro price data underlying the official Swedish producer price index with administrative firm level data and provide new evidence on the inflationary effects of global supply chain shocks. For identification, we rely on exogenous shocks to global supply chains obtained through a VAR model that combines conventional sign restrictions and narrative sign restrictions with firm-specific trade intensities. Shocks to global supply chains lead to a significant and persistent increase in producer prices with a peak response two years after the shock materialized. However, average responses mask significant heterogeneity across firms. Relatively larger firms, firms with stronger international linkages, firms with a lower inventory stock and firms selling products domestically increase prices more strongly.

(New project)

Price Pass-Through along the Supply Chain: Evidence from PPI and CPI Microdata

Edvin Ahlander, Mikael Carlsson and Mathias Klein

We examine the pass-through from producer to consumer prices, using product-group data derived from the microdata underlying the official Swedish PPI and CPI indices. We find a robust pass-through, in line with theoretical models emphasizing production inter-linkages between sectors. The results also display important heterogeneity in pricing behavior both along the supply chain, as well as across product groups. That is, upstream pricing seems much more rigid than downstream pricing in the supply chain and the pass-through across CPI products varies substantially with price-change frequencies. The recent COVID- and high-inflation periods do not change the main results.

(Continuing project)

A Traffic-Jam Theory of Growth

Daria Finocchiaro and Philippe Weil

We investigate the growth-finance nexus in an endogenous growth model with search frictions and congestion effects in credit and innovation markets. Financial development eases the financing of innovation but exacerbates bottlenecks in R&D. Once matching feedback effects are considered, the interplay between the two frictions generates a nonlinear relationship between finance and growth. In a calibration close to the U.S. economy, finance has a negative impact on growth. This effect is quantitatively small - consistent with the observation that, in the last century, most developed economies have experienced an expansion of the financial sector and almost constant growth rates of GDP.

(Continuing project)

Macro Uncertainty and Unemployment Risk

Joonseok Oh and Anna Rogantini Picco

Households' income heterogeneity is important to explain consumption dynamics in response to ag- gregate macro uncertainty: an increase in uncertainty generates a consumption drop that is stronger for income poorer households. At the same time, labor markets are strongly responsive to macro uncertainty as the unemployment rate and the job separation rate rise, while the job finding rate falls. A HANK model with search and matching frictions in the labor market can account for these empirical findings. The mechanism at play is a feedback loop between income poorer households who, being subject to higher unemployment risk, contract consumption more in response to heightened uncertainty, and firms that post fewer vacancies following a drop in demand.

(Continuing project)

Greenflation?

Conny Olovsson and David Vestin

What are the real and nominal implications of a green transition to a state with sustainable energy production, and how should monetary policy react during such transition? Using a New-Keynesian model with an energy and a goods sector, we show that a green transition requires the relative price of energy to increase and the relative price of goods, the marginal cost of production, and the real wage to fall. We prove analytically that if energy is not used in production and nominal wages and goods prices are rigid, a flexible energy price and a monetary policy rule that sees through energy-price changes are sufficient for replicating the flex-price economy. If energy is used in production there will be deviations from efficiency but because energy's share of income is small, these deviations are marginal unless the increase in the carbon tax is aggressive and/or monetary policy ill suited. During the green transition, it is optimal for monetary policy to see through the increasing energy prices and focus on core inflation. The result is a modest increase in CPI.

(New project)

Climate Policy in the Wide World

John Hassler, Per Krusell and Conny Olovsson

We construct a dynamic integrated assessment model of climate and the economy with very high geographic resolution: 1^{O}x 1^{O} latitude-longitude cells, with each cell assigned to a country. Migration is free within, but not allowed across, countries. The model parameterization uses a wealth of data, including the distribution of output, population, energy use, and estimates of the local damages from climate change. It implies huge geographic dispersion in damages from warming. We then conduct three kinds of policy experiments. In one, we note that a modest, uniform carbon tax limits global warming and damages around the world substantially. In a second experiment we let the poorest countries not tax carbon, while the rest compensate by setting higher taxes; the efficiency losses are large. In a final experiment we find that fast green technology growth alone is a poor substitute for carbon taxes, whether globally available or not.

(New project)

The Effects of Labor Income Risk Heterogeneity on the Marginal Propensity to Consume

Ettore Savoia

Using detailed micro-data, this paper documents that households with lower income risk (and higher income levels) exhibit a higher Marginal Propensity to Consume (MPC) in response to transitory income shocks, all else being equal. This finding is particularly significant among unconstrained households and supported by models with precautionary saving only if designed to account for the empirically observed negative correlation between income levels and income risk. This interaction generates saving dynamics such that the stationary distribution of wealth among households facing different risk levels is not polarized. Therefore, it is possible to compare their respective MPCs within wealth and identify the reduction in MPC due to labor income risk. Otherwise, the effects of income risk are masked by wealth effects. In neither case, the MPC depends on (permanent, persistent, or current) income levels, whose direct effect on the MPC is always ambiguous. Finally, simulations of targeted fiscal rebates for specific labor categories reveal that governments cannot simultaneously stimulate aggregate demand and mitigate income risk.

(New project)

Labor Income Risk and Monetary Policy: The Within-Wealth MPC Channel

Ettore Savoia

This paper studies how monetary policy affects individual consumption in a Heterogeneous Agent New Keynesian (HANK) model with ex-ante heterogeneity in the income processes. In this model, lower-earning households face higher and more countercyclical income risk. This unequal incidence lowers their Marginal Propensity to Consume (MPC) relative to safer and higher-earning households at the same positive wealth level. In this environment, the effects of a monetary tightening operate along and within the wealth distribution, revealing that income risk heterogeneity amplifies the equilibrium response of aggregate consumption and generates a more persistent output contraction. Unlike standard HANKs, this amplification is driven by the larger elasticities of unconstrained households with higher earnings and lower risk, whose consumption share accounts for the bulk of aggregate consumption.

(New project)

Do We Need Firm Data to Understand Macroeconomic Dynamics?

Ettore Savoia and Michele Lenza

We examine the contribution of heterogeneity in firms' investment for macroeconomic dynamics. To this end, we consider the transmission of a business cycle shock to euro area aggregate variables in two models: a standard aggregate vector autoregression model (VAR) and functional VAR (fVAR). The fVAR incorporates the evolution of the distribution of individual firm investment over time. Our results document that heterogeneity in firms' investment adds relevant information to explaining the aggregate dynamics of GDP and inflation. We interpret this finding as non-negligible evidence against the aggregate VAR, potentially affected by omitted variables bias.

(New project)

MONETARY POLICY AND THEORY

The Impact of Central Bank Transparency on the Decisions of Board Members

Mikael Apel and Marianna Blix Grimaldi

The impact of transparency on the deliberations and decisions of board members of central banks is an important issue in research on policymaking. Increased transparency can have different effects. It can make agents prepare more thoroughly – a disciplinary effect. It can also make agents behave differently due to career concerns, either by making them less inclined to oppose to the majority view – a herding, or conformism, mechanism – or by making them instead want to distinguish themselves more from others – an anti-herding or exaggeration mechanism. It may also make agents more committed to stick to a specific opinion once they have expressed it and less willing to change their mind, even if circumstances change. In this paper, we investigate if the character of the monetary policy meetings, as reflected in the minutes, has changed due to the de-anonymization and, if so, in what ways.

(Continuing project)

Who Said What? Speaker Identification from Anonymous Minutes of Meetings

Daniel Holmer, Lars Ahrenberg, Julius Monsen, Arne Jonsson, Mikael Apel and Marianna Blix Grimaldi

We apply machine learning techniques to identify speakers at meetings from anonymous minutes issued afterwards. We base our analysis on board meetings of Sveriges Riksbank. We combine topic models with other features to analyze prediction accuracies. We use a BERT-based transformer model as a
benchmark.

(Continuing project)

What Drives the Usage of a Security Lending Facility?

Marianna Blix Grimaldi and David Vestin

We investigate the security lending facility (SLF) usage and its potential spillovers to money markets. There are connections between the central bank's large-scale purchases of government bonds and the usage of the SLF. However, the interaction between the facility and the transmission of QE is not well understood. This also makes difficult to understand the potential impact of the recently started QT. In addition, there is a paucity of empirical evidence on the impact of the SLF pricing on the usage of the facility and its implications for repo market pricing and monetary policy transmission.

(Continuing project)

Unconventional Monetary Policy and Bank Lending Behaviour

Marianna Blix Grimaldi and Supriya Kapoor

Though unconventional monetary policy is still new, already there is a conventional wisdom that the impact of monetary policy is related to the composition of the asset mix. This may be incomplete and potentially misleading. We investigate how the impact on similarly QE-exposed banks changes depending on heterogeneity of exposures at bank level.

(Continuing project)

Facts about International Central Bank Communication

Christoph Bertsch, Isaiah Hull, Robin L. Lumsdaine and Xin Zhang

We assemble a large collection of data from 53 central banks around the world. Using state-of-the-art Large Language Models (LLMs), we construct text features from international central bank speeches by measuring semantic textual similarity and by performing zero shot classification. We use the text features to establish novel facts about international central bank communication. The database of text features was made available for the NBER SI 2023 workshop on "International Finance and Macroeconomics Data Sources.

(New project)

Central Bank Mandates and Monetary Policy Stances: through the Lens of Federal Reserve Speeches

Christoph Bertsch, Isaiah Hull, Robin L. Lumsdaine and Xin Zhang

The Federal Reserve has an institutional mandate to pursue price stability and maximum sustainable employment; however, it remains unclear whether it can also pursue secondary objectives, such as financial stability, economic equality, or climate risk mitigation. The academic literature has largely argued that it should not. We characterize the Fed's interpretation of its mandate using state-of-the-art methods from natural language processing, including a collection of large language models (LLMs) that we modify for enhanced performance on central bank texts. We apply these methods and models to a comprehensive corpus of Fed speeches delivered between 1960 and 2021. We find that the Fed perceives financial stability to be the most important policy concern that is not directly enumerated in its mandate, especially in times when the debt-to-GDP ratio is high, but does not generally treat it as a separate policy objective. From a policy perspective, it has, in fact, frequently discussed the use of monetary policy to achieve financial stability and this discussion appears to have consequences. In particular, its discussion of both financial stability and financial crises predicts both monetary policy decisions and movements in asset prices, even after rigorously controlling for macroeconomic and financial variables.

(Continuing project)

Quantitative Easing and Safe Asset Scarcity: Evidence from International Bond Safety Premia

Jens Christensen, Nikola Mirkov and Xin Zhang

Through large-scale asset purchases, widely known as quantitative easing (QE), central banks around the world have reduced the available supply of safe assets. We examine the effects of the European Central Bank's asset purchases in the 2015-2021 period on an international panel of bond safety premia from four highly rated countries: Denmark, Germany, Sweden, and Switzerland. We find statistically significant negative effects for all four countries. This points to a novel and important international spillover channel of QE programs to bond safety premia that operates via changes in the perceived relative scarcity of safe assets across international bond markets.

(New project)

Liquidity, Capital Pledgeability and Inflation Redistribution

Paola Boel, Julian Diaz and Daria Finocchiaro

We study the redistributive effects of expected inflation in a microfounded monetary model with heterogeneous discount factors and collateral constraints. In equilibrium, this heterogeneity leads to borrowing and lending. Model assumptions also guarantee a tractable distribution of money and capital holdings. Several results emerge from our analysis. First, inflation acts as a progressive tax and is detrimental to capital accumulation. Second, expected inflation affects borrowing and lending when collateral constraints are present, thus also inducing redistributive effects through credit. Third, collateralization reduces wealth inequality whereas inflation can increase it.

(Continuing project)

Household Heterogeneity and the Collateral Channel of Monetary Policy

Daria Finocchiaro, Ettore Savoia, Karl Walentin and Andreas Westermark

In standard new Keynesian heterogeneous agent models (HANK), indirect channels of monetary policy transmission linked to general equilibrium changes in labor demand tend to be substantial. In contrast, asset prices movements due to a monetary policy hike have only a small impact on the economy. The existing HANK literature abstracts from several potentially important issues by lumping together business capital and housing while netting out mortgage debt. In this paper, we study how monetary transmission works when we account for household collateral in the form of housing. Specifically, since housing is relatively illiquid, monetary policy shocks can trigger a stronger response of house prices thereby affecting the collateral constraint and borrower consumption. We calibrate the model and then study effects of monetary policy shocks on inflation, output and the distribution of wealth and income

(Continuing project)

The Inflationary Effects of Quantitative Easing

Mathias Klein and Xin Zhang

We provide new evidence on the inflationary effects of Quantitative Easing (QE) using Swedish administrative data at the bank, firm, and product level. For identification, we rely on bank-firm lending relationships and the heterogeneous participation rates of banks in the government bond purchase program by the Swedish central bank. Our results show that the bond purchase program led to a significant and persistent increase in producer prices. Importantly, we find that the degree of financial frictions considerably influences firms' price response: low leverage firms do not change their prices, whereas high leverage firms raise their prices significantly. This divergent pricing behaviour can be rationalized by a significant increase in long-term borrowing and interest rate expenses among high leverage firms. The difference in price responses across high and low leverage firms is less pronounced for exogenous changes in the repo rate implying that the transmission mechanism of QE differs from the one of conventional interest rate policy.

(Continuing project)

Refereed publications accepted in 2023

Turan Bali, Doruk Gunaydin, Thomas Jansson and Yigitcan Karabulut, Do the Rich Gamble in the Stock Market? Low Risk Anomalies and Wealthy Households Journal of Financial Economics

Roberto Billi, Jordi Galí and Anton Nakov, Optimal Monetary Policy with $r^* < 0$, Journal of Monetary Economics

Jiaqian Chen, Daria Finocchiaro, Jesper Lindé and Karl Walentin, The Costs of Macroprudential Deleveraging in a Liquidity Trap, Review of Economic Dynamics

Enzo D'Innocenzo, André Lucas, Bernd Schwaab and Xin Zhang, Modeling Extreme Events: Time-varying Extreme Tail Shape, Journal of Business and Economic Statistics

Ricardo Duque Gabriel, Mathias Klein and Ana Sofia Pessoa, The Political Costs of Austerity Review of Economics and Statistics

Alessandro Ferrari and Anna Rogantini Picco, Risk Sharing and the Adoption of the Euro, Journal of International Economics

Francisco Gomes, Thomas Jansson and Yigitcan Karabulut, Do Robots Increase Wealth Dispersion?, Review of Financial Studies

Anna Grodecka-Messi and Xin Zhang, Private Bank Money vs Central Bank Money: A Historical Lesson for CBDC Introduction, Journal of Economic Dynamics and Control

Mathias Klein and Luder Linneman, The Composition of Public Spending and the Inflationary Effects of Fiscal Policy Shocks, European Economic Review

Working papers

No. 419, Stefan Laséen, Central Bank Asset Purchases: Insights from Quantitative Easing Auctions of Government Bonds

No. 420, Conny Olovsson and David Vestin, Greenflation?

No. 421, Yildiz Akkaya, Carl-Johan Belfrage, Paola Di Casola and Ingvar Strid, Effects of Foreign and Domestic Central Bank Government Bond Purchases in a Small Open Economy DSGE Model: Evidence from Sweden Before and During the Coronavirus Pandemic

No. 422, Niklas Amberg, Tor Jacobson, Vincenzo Quadrini and Anna Rogantini Picco, Dynamic Credit Constraints: Theory and Evidence from Credit Lines

No. 423, Christoph Bertsch, Stablecoins: Adoption and Fragility

No. 424, Anna Grodecka-Messi and Xin Zhang, Private Bank Money vs Central Bank Money: A Historical Lesson for CBDC Introduction

No. 425, Niklas Amberg, Do Credit Lines Provide Reliable Liquidity Insurance? Evidence from Commercial-Paper Backup Lines

No. 426, Edvin Ahlander, Mikael Carlsson and Mathias Klein, Price Pass-Through Along the Supply Chain: Evidence from PPI and CPI Microdata

No. 427, Carl Andreas Claussen, Björn Segendorf and Franz Seitz, Cash for Transactions or Store-of-Value? A Comparative Study on Sweden and Peer Countries

No. 428, Marianna Blix Grimaldi and Supriya Kapoor, Fed QE and Bank Lending Behaviour: A Heterogeneity Analysis of Asset Purchases

Non-refereed publications

Edvin Ahlander, Mikael Carlsson, and Mathias Klein, How Producer Price Changes Transmit into Final Goods Prices, SUERF Policy Brief No. 675

Niklas Amberg, Tor Jacobson, Vincenzo Quadrini, and Anna Rogantini Picco, Are Firms Credit Constrained? Answers from a Swedish Credit Registry, SUERF Policy Brief No. 623

Christoph Bertsch, Adoption, Fragility and Regulation of Stablecoins, SUERF Policy Brief No. 662

Christoph Bertsch, Isaiah Hull, Robin L Lumsdaine and Xin Zhang, Federal Reserve Speeches Meet Transformer Models, SUERF Policy Brief No. 528

Cristina Cella, Taking their Temperature: Swedish Mutual Funds and the Paris Agreement, Sveriges Riksbank Staff Memo, April 2023

Ricardo Duque Gabriel, Mathias Klein, and Ana Sofia Pessoa, Austerity Benefits the Extremes, SUERF Policy Brief No. 531

Daniel Holmer, Lars Ahrenberg, Julius Monsen, Arne Jönsson, Mikael Apel and Marianna Blix Grimaldi, Who Said What? Speaker Identification from Anonymous Minutes of Meetings, in Proceedings of the 24th Nordic Conference on Computational Linguistics

Conny Olovsson and David Vestin, Will a Green Transition lead to Greenflation?, SUERF Policy Brief No. 577

Other research activities

Conferences and Events

The Riksbank hosted the 77th Economic Policy Panel Meeting on 20-21 April, organized by the Centre for Economic Policy Research (CEPR), the CESifo, and SciencesPo. The theme of the meeting was geoeconomics, and proceedings from the conference will be published in the journal Economic Policy.

On 2-3 May, the Riksbank organized a conference on Climate Change and the Financial System: Challenges and Opportunities for Central Banks, jointly with the Sustainable Finance Lab. The conference featured presentations of theoretical and empirical research providing new insights into the economics of climate change and its relation to the financial system at large, including monetary policy and financial regulation. It included keynote lectures by Steven Ongena (University of Zürich) and Laura Starks (University of Texas at Austin), and a policy panel with Anna Breman (Sveriges Riksbank), John Hassler (IIES, Stockholm University) and Glenn Rudebusch (Brookings Institution), moderated by Nicoletta Batini (IMF).

On 28-29 September, the Riksbank organized the 3rd WE ARE IN Macroeconomics and Finance Conference in collaboration with the CEPR, BIS, and ECB. The conference aimed at fostering interaction between junior and senior female economists across academia and policy institutions, and brought together female economists to discuss new research on macroeconomics and finance. The conference included a PhD Poster Session, as well as a policy panel with Anna Breman (Sveriges Riksbank), Megan Greene (Bank of England) and Signe Krogstrup (Danmarks Nationalbank), moderated by Soumaya Keynes (The Financial Times).

On 16-17 November, the Riksbank organized the 2nd Conference on the Economics of Central Bank Digital Currency jointly with the Bank of Canada. The conference featured presentations of theoretical and empirical research providing new insights into CBDC and payment innovations. It included a keynote lecture by Franklin Allen (Imperial College London) on “CBDC’s and Financial System Structure”. It also featured a policy panel on “Digital Money Revolution: Central Bank Digital Currency vs. Stablecoins” with Chris Waller (Federal Reserve Board), Dirk Niepelt (University of Bern) and Rod Garratt (BIS and UC Santa Barbara), moderated by Katrin Assenmacher (ECB).

Together with the Center for Monetary Policy and Financial Stability (CeMoF) at Stockholm University, the Research Division organized the 2nd workshop for PhD students in Money and Finance on 15 May. The Research Division also organized the session “Monetary and Fiscal Policy in Uncertain Times” at the annual meeting of the Central Bank Research Association (CEBRA) in New York City on 5-7 July.

Anna Rogantini Picco was on the scientific committee of the European Economic Association Annual Congress in Barcelona on 28 August to 1 September. Daria Finocchiaro was on the scientific committee of the Norges Bank Research Workshop: Women in Central Banking in Oslo on 10 November. Xin Zhang was on the scientific committee of the ASSA-IBEFA annual meeting in New Orleans on 6-8 January, and on the scientific committee of the 5th Conference on Nontraditional Data, Machine Learning, and Natural Language Processing in Macroeconomics at the Federal Reserve Board on 13-14 November. Xin was also on the organizing committee of the online seminar series Applied Machine Learning, Economics, and Data Science.

Greater Stockholm Macro Group

Together with Per Krusell (IIES, Stockholm University), the Research Division has been organizing a monthly internal seminar series for macro researchers from all major institutions in Stockholm and Uppsala. This series is known as “Greater Stockholm Macro Group” (GSMG) and aims at fostering exchange of ideas and cooperation among macro researchers in the Stockholm area.

Internship Program

The Research Division organises an internship program for PhD students in Economics, Finance or Statistics enrolled at Swedish or foreign universities. The selected interns spend a period of two months at the Riksbank – either at the Research Division or at a policy department – during the periods April to June or August to December, and the application deadline is typically in February each year.

This year, the Riksbank welcomed a total of ten PhD student interns. The Research Division hosted six interns: Narek Alexanian (Princeton University), Lukas Boehnert (University of Oxford), Magnus Hjortfors Irie (London School of Economics), Nika Khinashvili (Geneva Graduate Institute), Alessandro Lavia (Boston College) and Alena Wabitsch (University of Oxford). Three interns were hosted by the Monetary Policy Department: Märta Almgren (Stockholm University), Alexander Czarnota (Uppsala University) and Lina Thomas (Stockholm School of Economics). The Financial Stability Department hosted as intern Nils Landén Mammos (Stockholm University).

Research Seminars

The Research Division organizes weekly research seminars, mainly with international speakers. The seminars usually take place on Tuesdays, and attendance is open to Riksbank employees as well as to academics. Seminars have been in-person and virtual events. The homepage of the Research Division has a complete list of both upcoming and past seminars.

Teaching and Advising

Several staff members taught monetary economics and quantitative methods to PhD students from Stockholm University. Conny Olovsson taught the course “The Climate and the Economy” at Stockholm University, together with John Hassler and Per Krusell, Conny also gave guest lectures on the same topic at Uppsala University. Marianna Blix Grimaldi gave lectures for master students on “Monetary policy and Central Banking" at Linköping University, and gave lectures for bachelor students on “Deposit Insurance, Monetary policy and FinTech” at University West. Christoph Bertsch gave a guest lecture for PhD students on “Central Bank Digital Currency and Stablecoins” at Oxford University. Anna Rogantini Picco gave a guest lecture for PhD students on “Inflation and Monetary Policy Challenges” at the Hertie School in Berlin. Daria Finocchiaro and Ulf Söderström advised PhD students at Uppsala University. Finally, we also organized an internal Riksbank course on central banking.

Miscellanea

Marianna Blix Grimaldi participated in the meetings of the International Banking Research Network, Thomas Jansson participated in the Household Finance and Consumption Network, Andreas Westermark participated in the Central

Bank Network on Historical Monetary and Financial Statistics, while Anna Rogantini Picco and Xin Zhang participated in the Challenges for Monetary Policy Transmission in a Changing World Research Network.

The Research Division started an account on X (formerly known as Twitter) to share information with academics, researchers at other policy institutions and the public on research papers, publications and news from researchers at Sveriges Riksbank.

Upcoming events in 2024

We are planning for the third PhD workshop in Money and Finance, jointly with CeMoF. The Research Division will teach again a second-year PhD course on monetary economics, in cooperation with faculty from Stockholm University. The purpose of the course is to introduce students to modern New Keynesian models for monetary policy and business-cycle analysis. And we are planning to give the internal Riksbank course on central banking also in 2024.

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