

BOOK OF ABSTRACTS

DEPARTMENT OF ECONOMICS - UNIVERSITY OF CRETE

27th International Conference on Macroeconomic Analysis and International Finance

25 - 27 May, 2023

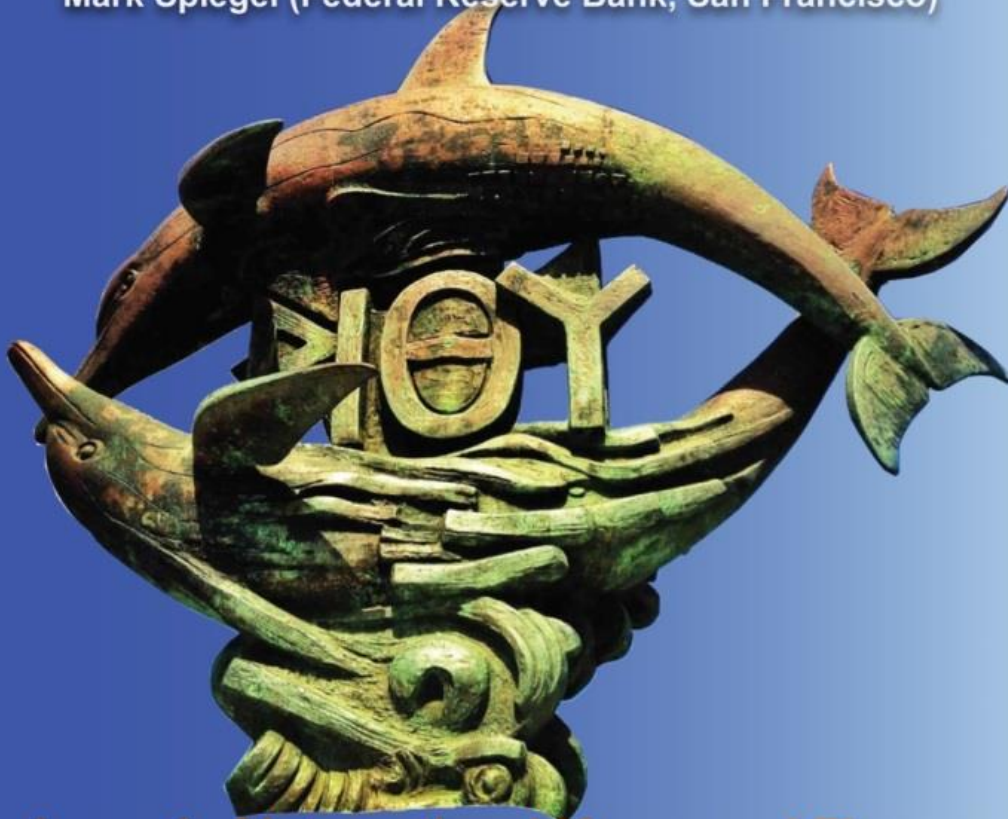
Keynote Speakers:

Kevin Hassett (Hoover Institution)

Loukas Karabarounis (Minnesota)

Kai Li (British Columbia)

Mark Spiegel (Federal Reserve Bank, San Francisco)



Journal of International Money and Finance
Journal of Forecasting

University Campus, Rethymno, Greece

<https://icmaif.soc.uoc.gr>

Gross Capital Inflows, the U.S. Economy, and the Response of the Federal Reserve

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In recent years, there has been a surge in capital inflows to the United States' treasury and corporate bond markets from other countries. How do these inflows affect economic activity in the United States? Does the Federal Reserve respond to such shocks? To address these important issues, we employ a sign-identified structural vector autoregressive (SVAR) model to see the effects of these types of capital inflows. Our results suggest that the U.S. economy and the Federal Reserve's balance sheet respond differently to shocks to these inflows. In particular, gross inflows to U.S. treasuries are contractionary while inflows to corporate debt are expansionary. Moreover, the Federal Reserve shrinks its balance sheet in response to shocks to gross capital inflows to U.S. treasury securities with little to no response to inflows to corporate securities. Interestingly, we find that the bulk of the Fed's response to both shocks is systematic. In this manner, the Federal Reserve's response to these shocks played only a minor role in the evolution of macroeconomic aggregates following such shocks.

Estimating a Time-Varying NAIRU and the Unemployment Gap: Evidence from the Philippines

Vanessa Espano

Bangko Sentral ng Pilipinas

In this paper, the Kalman filter is applied to an expectations-augmented Phillips curve to derive the non-accelerating inflation rate of unemployment or NAIRU and unemployment gap estimates for the Philippines from 1990Q3 to 2022Q1. Model estimates suggest that the NAIRU is sensitive to the measure of inflation used, specifications of the model, and availability of new data

External Wealth of Nations and Systemic Risk

Alin Andries | Alexandra Maria Chiper | Steven Ongena | Nicu Sprincean

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Zurich, Swiss Finance Institute, KU Leuven, NTNU Business School, and CEPR |
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Research, Romanian Academy**

External imbalances played a pivotal role in the run-up to the global financial crisis, being an important underlying cause of the ensuing turmoil. While current account (flow) imbalances have narrowed in the aftermath of the crisis, net international investment position (stock) imbalances still persist. In this paper, we explore the implications of countries' net foreign positions on systemic risk. Using a sample composed of 450 banks located in 46 advanced, developing and emerging countries over the period 2000-2020, we document that banks can reduce their systemic risk exposure when the countries where they are incorporated maintain creditor positions vis-à-vis the rest of the world. However, only the equity components of the net international investment positions are responsible for this outcome, whereas debt flows do not contribute significantly. In addition, we find that the heterogeneity across countries is substantial and that only banks located in advanced markets that maintain their creditor positions have the potential to improve their resilience to system-wide shocks. Our findings are relevant for policy makers who seek to improve banks' resilience to adverse shocks and to maintain financial stability.

Quantifying the Role of Interest Rates, the Dollar and Covid in Oil Prices

Emanuel Kohlscheen

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This study analyses oil price movements through the lens of an agnostic random forest model, which is based on 1,000 regression trees. It shows that this highly disciplined, yet flexible computational model reduces in-sample root mean square errors (RMSEs) by 65% relative to a standard linear least square model that uses the same set of 11 explanatory factors. In forecasting exercises the RMSE reduction ranges between 51% and 68%, highlighting the relevance of non-linearities in oil markets. The results underscore the importance of incorporating financial factors into oil models: US interest rates, the dollar and the VIX together account for 39% of the models' RMSE reduction in the post-2010 sample, rising to 48% in the post-2020 sample. If Covid-19 is also considered as a risk factor, these shares become even larger.

Equity premium prediction: The role of information from the options market

Ekaterini Panopoulou | Antonis Alexandridis | Iraklis Apergis | Nikolaos Voukelatos

Essex Business School | University of Macedonia | Kent Business School | Kent Business School

This paper examines the role of information from the options market in forecasting the equity premium. We provide empirical evidence that the equity premium is predictable out-of-sample using a set of CBOE strategy benchmark indices as predictors. We use a range of econometric approaches to generate point, quantile and density forecasts of the equity premium, and we find that models based on option variables consistently outperform the historical average benchmark. In addition to statistical gains, using option predictors results in substantial economic benefits for a mean-variance investor, delivering up to a fivefold increase in certainty equivalent returns over the benchmark during the 1996-2021 sample period.

Monetary Policy and Income Inequality in the U.K.: A High-Frequency Identification Approach with Local Projections

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In this study, we combine the High-frequency identification approach with the research field of monetary policy and inequality. In particular, we analyze the effects of contractionary monetary policy shocks on income inequality in the U.K. from Jan. 1992 to Mar. 2020. In doing so we extend the high-frequency instrument of Cesa-Bianchi et al. (2020) with the one provided by Mumtaz and Kaminska (2022). Using bayesian local projections we find that a contractionary monetary policy shock of 25 bps leads to a 0.18 per cent increase in the Gini-Coefficient of total disposable income. Additionally, the 50/10 percentile ratio falls significantly while the 90/50 percentile ratio remains insignificantly different from zero. We explain these findings based on the income composition and the earnings heterogeneity channel and also find an indication of a countercyclical behaviour of working hours over the business cycle in the U.K. labour market confirming recent findings in Cantore et al.(2022).

The Marginal Value of Sovereigns' Reputation

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AbstractWe investigate the role of the sovereign borrower's reputation at explaining the length of speculative and investment-grade rating phases using a novel extension of the Weibull model that allows for change points in the duration dependence. Relying on Fitch, Moody's and Standard & Poor's ratings for a large panel of developed and developing countries, we find that until sovereigns acquire an established reputation of bad or good borrowers, the likelihood of losing that status will mainly be driven by factors, such as economic growth, fiscal stance and governance quality. Hence, both rating phases are more likely to end as they grow older, but only until a certain duration. Meanwhile, sovereigns putting forward nominal debt relief measures during defaults or with an history of debt restructuring deals supported by multilateral institutions hardly escape the 'curse' of protracted speculative-grade rating phases. Finally, governments discriminate between domestic and foreign agents, 'prioritising' defaults on foreign currency when unable to fulfill their financial obligations.

Bank Capital Regulation in the Euro Area and the Sovereign-Bank Nexus

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Munich University of Applied Sciences | Deutsche Bundesbank | Deutsche Bundesbank

Abstract We explore how changes in macroprudential capital regulation in the euro area affect the exposure of national banking sectors to domestic government debt, thereby strengthening or weakening the sovereign-bank nexus. To this end, we estimate panel vector autoregressive models for euro area country groups using a measure of macroprudential policy constructed from the Macroprudential Policy Evaluation Database. Our main findings show that banks in peripheral countries increase their holdings of domestic government bonds in response to a restrictive capital-based macroprudential policy shock, suggesting a strengthening of the sovereign-bank nexus. In contrast, in core countries, the reaction is the opposite. We find that differences in capital positions across country groups can explain our results, which are robust to changes in the econometric setup and the macroprudential indicator used.

Consumer and business confidence connectedness in the euro area: A tale of two crises

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In this paper, we analyse the interrelationship and propagation of consumer and business confidence in the euro area during the period November 1987 to February 2022, applying both the connectedness framework and the Time-Varying Parameter Vector Autoregressive connectedness approach. We successively examine static and dynamic spillovers (both within the euro area and central and peripheral countries) between consumer and business confidence indicators, for progressively shedding light on the transmitters and receivers of confidence shocks, with a particular focus on the 2008-2012 global financial, the subsequent euro area sovereign debt crises and the Covid-induced Great Lockdown. Our results suggest that although the GFC and the subsequent debt crisis were marked by the evolution of business confidence, the role of consumer confidence increased in the Covid-19-induced crisis. These findings highlight how crucial it is to control expectations and confidence during crisis situations.

Boosting carry with equilibrium exchange rate estimates

Michal Rubaszek

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We build currency portfolios based on the paradigm that exchange rates slowly converge to their equilibrium to highlight three results. First, this property can be exploited to build profitable portfolios. Second, the slow pace of convergence at short-horizons is consistent with the evidence of profitable carry trade strategies, i.e. the common practice of borrowing in low-yield currencies and investing in high-yield currencies. Third, the predictive power of equilibrium exchange rates may boost the performance of carry trade strategies.

Too-big-to-fail banking in Europe. An enduring challenge.

Dr. Stefanos Ioannou | Panagiotis Iliopoulos | Prof. Dariusz Wojcik

Oxford Brookes University | KU Leuven | University of Oxford

In this paper we discuss too-big-to-fail (TBTF) banking in the context of the European Union. We start by reviewing the public funds committed for supporting European TBTF banks during the crises of 2008 and 2010, and elaborate the evolution of their size. We then provide a critical overview of the most prominent bank reforms implemented since the crisis of 2010, also considering reforms that were debated but never came into fruition. Following, we ask whether financial markets still foresee government bailout support for European TBTF banks if need be. For our analysis we use mixed methods, combining a novel set of evidence from fieldwork research in Europe with quantitative evidence from an analysis of bank credit ratings for a large sample of European banks. Our results suggest that financial markets still expect government support for TBTF banks. Global systemically important banks record a long-term credit rating about three notches higher to what it would be in the absence of the expectation of government support. Overall, while some important steps were taken in the follow-up of the crisis for controlling the challenges associated with TBTF banking, most notably an increase in capital requirements and closer regulatory scrutiny, TBTF banks, particularly those identified as systemically important at the global scale, remain on average as big and interconnected as before the crisis.

Global implications of multi-dimensional US monetary policy normalization

Georgios Georgiadis

ECB

US monetary policy spans several dimensions and has been documented to involve (Delphic) information effects. This multi-dimensional nature of US monetary policy is not adequately accounted for by existing empirical work on spillovers. We estimate spillovers from US monetary policy, accounting for the different dimensions of the Federal Reserve's toolkit and information effects simultaneously in a unified framework. Findings novel to the literature are: (i) forward guidance about the path of future policy rates, large-scale asset purchases (LSAPs) and information effects entail substantial spillovers, while a change in the current Federal funds rate given forward guidance does not (ii) spillovers from forward guidance and information effects transmit predominantly through risk, manifesting instantly in equity prices, spreads, capital flows and the dollar exchange rate (iii) although LSAPs trigger instant international portfolio re-balancing in safe bonds, broader spillovers materialize more gradually through risk rather than term premia (iv) all dimensions of the Federal Reserve's toolkit induce trade-offs for emerging market economy central banks.

Private bank deposits and macro/fiscal risk in the euro-area

**Alexandros Kontonikas | Michael G. Arghyrou | Maria-Dolores Gadea |
Alexandros Kontonikas**

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Department of Applied Economics, University of Zaragoza | University of Essex**

We use a panel of ten euro area member states to examine the link between macro/fiscal risk and private bank deposits relative to Germany. Our main findings are summarised as follows: First, the relationship between relative deposits and macro/fiscal risk factors is not stable over time. Second, the significant time variation characterizing this relationship is driven by aggregate EMU-wide macro/fiscal risk conditions. Third, relative deposits in periphery EMU countries are generally more responsive to macro/fiscal risk. Fourth, the ECB's unconventional monetary policy moderated the effect of the global financial and European debt crises on the relationship between relative deposits and macro/fiscal risk. Our empirical findings can inform the ongoing policy debate regarding the completion of the European Banking Union.

The uncertainty channel of euro area monetary transmission

Daniel Gründler

University of Innsbruck

What is the role of macroeconomic uncertainty in the monetary transmission mechanism? This paper provides euro area evidence that a policy induced increase in uncertainty accounts for a substantial share in the economic contraction following a monetary policy shock. Our results suggest that various groups and sectors of the economy are underlying this uncertainty channel, as tightening effects on financial conditions as well as downward revisions in firm's plans on hiring and production and consumer's plans on major purchases are all smaller if this transmission channel is turned off. Finally, we find evidence that the relevance of the uncertainty channel differs across euro area member countries and thus contributes to cross country heterogeneities in the transmission of euro area policy.

A taste for dim sum: exploring the drivers of financial innovation in the new offshore renminbi bond market

Paul Mizen | Tom Fong

University of Nottingham | Hong Kong Monetary Authority

This paper investigates the emergence of new renminbi (RMB) financial products as China pursues RMB internationalization. Using a novel database of offshore RMB denominated bonds and firm-level accounting data covering the period 2008 to 2018, we present evidence to explore the behavior of issuers in this market finding that firms with strong balance sheets issue more readily, supported by stronger credit ratings but the costs of issuance, favorable swap rates and relative liquidity in the RMB market all influence the decision to issue. Our paper provides an insight into the internationalization process taking place in China and the opportunities that are presented by this new offshore debt market.

Hedging against inflation: Housing vs. Equity

Daniel Fehrle

Kiel University

To which extent do equity and housing hedge against inflation? Despite the extensive literature, there is only little consensus. This paper presents evidence on this question from the Jordà-Schularick-Taylor Macroeconomy Database covering 16 countries from 1870 to 2020. The results depend on the time horizon and period considered. Within a one-, five-, and ten-year horizon, housing at least partially hedges against inflation. The nominal return-inflation relation is higher in the post-war period. In the long run, housing hedges excessively in the whole sample and perfectly in the post-war period. Equity provides no hedge within one year in the entire period, and the returns tend to decrease with inflation in the post-war period. The hedge improves slightly with a longer time horizon and is perfect in the long run in the post-war period. Thus, housing is at least weakly superior in hedging against inflation. The results are robust to a non-housing consumption price index and an asset price appreciation approach.

Global Value Chains and Equilibrium Exchange Rate: Evidence from Central European Economies

Kamila Kuziemska-Pawlak | Jakub Mućk

Narodowy Bank Polski | Narodowy Bank Polski

Abstract This paper proposes an extension of the fundamental equilibrium exchange rate (FEER) model that accounts for the trade linkages within the Global Value Chains (GVCs). In the modified FEER framework, both backward and forward linkages are taken into consideration. To demonstrate the empirical relevance of the complex nature of existing trade linkages, the proposed FEER model is applied to analyze exchange rate fluctuations of the selected Central and Eastern European countries against the euro. It is documented that in Czechia, Hungary, and Poland the standard FEER framework predicts rapid appreciation of the equilibrium exchange rate after 2010, which implies deepening undervaluation of the actual real exchange rate towards the end of the analysed period. Instead, when the GVCs' linkages are taken into account in the framework, actual real exchange rates are broadly in line with the fundamental equilibrium exchange rates, and hence the missing real appreciation of the Czech krone, the Hungarian forint and the Polish zloty is to a large extent an equilibrium phenomenon.

Uncertainty and Crisis in Sovereign Bond Markets: A Threshold Regression model for Greek sovereign spreads

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A threshold regression model is estimated for Greek sovereign risk for the period ranging between the onset of the EMU and the first months of the COVID-19 crisis. The purpose of the model is to endogenously determine the critical threshold of uncertainty, above which Greece enters the so-called “crisis regime”. Below some critical threshold for uncertainty (“normal regime”), Greek sovereign risk pricing is driven by fundamentals. Above this critical threshold for uncertainty (“crisis regime”), market sentiment effects and uncertainty are shown to drive Greek sovereign risk. Months between the onset of the EMU and December 2020 are classified into two regimes: “Crisis” regimes correspond to the following months: August 2010, December 2010- January 2011, May 2011- September 2013, May 2015-June 2015, March 2016-April 2016. All other months, including the end of the Second Economic Adjustment Programme in 2014 and the end of the Third Economic Adjustment Programme in 2018, are classified as “normal”. Highlights

- Greek sovereign risk pricing is shown to be volatility-driven. Regimes are distinguished according to a level of uncertainty derived via a T-GARCH model for the Greek sovereign spread.
- The derived measure of uncertainty is shown to be a good proxy of the so-called “unknown unknowns”.
- Principal Component Analysis is performed to derive one of the data inputs to the threshold regression, capturing the relative riskiness of the Eurozone periphery to core countries.
- The ECB’s unconventional monetary policy in response to the Eurozone debt crisis is shown to have worked to the detriment of Greek sovereign spreads in periods when most needed by Greece (during “crisis” periods).

Switching-track after the Great Recession

Francesca Vinci | Omar Licandro

European Central Bank | University of Nottingham

We propose a theoretical framework to reconcile episodes of V-shaped and L-shaped recovery encompassing the behaviour of the U.S. economy before and after the Great Recession. In a DSGE model with endogenous growth, negative demand shocks destroy productive capacity, moving GDP to a lower trajectory. A Taylor rule policy designed to reduce the output gap can counterbalance shocks, preventing the destruction of economic capacity and inducing V-shaped recoveries in line with past episodes. However, when shocks are deep and persistent enough potential output measures get revised down (switching-track), weakening the recovering role of monetary policy, and inducing an L-shaped recovery.

The Dark Shadow of Benefit Reforms in a Monetary Union

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Lower unemployment benefits increase firms' incentives to post vacancies due to lower wages, but reduce workers' insurance against unemployment. Under incomplete insurance, this stimulates precautionary savings and reduces the equilibrium interest rate. We analyze the consequences of a benefit reform under incomplete asset markets in a two-country model. The increase in precautionary savings in the reforming country leads to a permanently higher debt level in the non-reforming country and increased debt service. We discipline our quantitative model to the estimated reaction of the tradable versus the non-tradable sector in the aftermath of the German Hartz reforms and analyze the implications in the European Monetary Union. The calibrated version of the model generates substantial negative long-run consumption spillovers, which we call the dark shadow of labor market reforms.

Spillover effects of sovereign bond purchases in the euro area

Anna Samarina

De Nederlandsche Bank

This paper investigates cross-border spillover effects from the Eurosystem's Public Sector Purchase Programme (PSPP) on euro area government bond returns. We distinguish between the direct effects of domestic bond purchases by national central banks and the indirect effects from bond purchases by national central banks in other euro area countries over the period March 2015 - December 2018. The results reveal substantial spillover effects across the euro area, providing evidence for arbitrage within euro area sovereign bond markets. These spillover effects are particularly large for longer-term bonds and for bonds issued by non-core countries. The larger impact of spillovers in these cases can be explained by investors rebalancing toward higher yielding government bonds.

Emotion in Euro Area Monetary Policy Communication and Bond Yields: The Draghi Era

Dimitrios Kanelis | Pierre L. Siklos

**Westfälische Wilhelms-Universität Münster | Wilfrid Laurier University, Balsillie
School of International Affairs, and CAMA**

We combine modern methods from Speech Emotion Recognition and Natural Language Processing with high-frequency financial data to analyze how the vocal emotions and language of ECB President Mario Draghi affect the yield curve of major euro area economies. Vocal emotions significantly impact the yield curve. However, their impact varies in size and sign: positive signals raise German and French yields, while Italian yields react negatively, which is reflected in an increase in yield spreads. A by-product of our study is the construction and provision of a synchronized data set for voice and language.

Taming the tides of capital - Review of capital controls and macroprudential policy in emerging economies

Anni Norring

Bank of Finland

This paper gives an overview on the use of macroprudential policy measures (MPMs) and capital flow management measures (CFMs) by emerging economies, and reviews literature on the effectiveness of these measures in containing the effects of large and volatile capital flows. The goal of the paper is to inform a wider research agenda on how, when, and why emerging economies (EMEs) use MPMs and CFMs. The main findings of the paper are the following: First, major EMEs tend to use both MPMs and CFMs more than AEs. Second, the empirical evidence on the effectiveness of CFMs remains mixed. Third, there is indicative evidence that MPMs can contain the effects of capital flow volatility. Lastly, there is still little research into the interaction of CFMs and MPMs.

Evaluating Fiscal Forecast Accuracy over Time

Peter Claeys

Universidad Pontificia Comillas

Budget forecasts have become increasingly important as a tool of fiscal management to influence expectations of bond markets in a timely way, yet the inherent difficulty in projecting macroeconomic variables – together with the alternations of political life – thwart the accuracy of budget forecasts. I propose updating fiscal forecasts regularly, and evaluating its performance with recent forecast stability tests. I use real time data and a combination of private and public forecasts for Italy over the period 1993-2019 to test and compare predictive accuracy over time. Although a weighted combined forecast is robust to breaks, it does not significantly improve over a simple RW model.

The asymmetric effects of weather shocks on euro area prices

Catalina Martinez Hernandez | Matteo Ciccarelli | Friderike Kuik

European Central Bank | European Central Bank | European Central Bank

This paper assesses the impacts of weather shocks on sectoral prices in the four largest euro area economies. The effects are estimated using highfrequency weather data and monthly data on prices and output, within a set of Bayesian Vector Autoregressions which explicitly consider the seasonal dependence of the shock. Our results suggest that temperature-related shocks have significant effects on prices. The response of aggregate prices to temperature shocks occurs mainly via food, energy and service prices, and is heterogeneous across countries and over seasons. An increase in monthly mean temperatures increases prices in summer and decreases prices in other seasons of the year, with a stronger response in warmer euro area countries. An increase in temperature variability has significant upward impacts on prices beyond the impacts of changes in means. Our results suggest an important role of future weather shocks - increasingly frequent and intense in a changing climate - on price and price volatility dynamics.

On the Identification of Fiscal Policy Rules

Peter Claeys | Giovanni Bardone | Hugo Mayca

College of Europe | College of Europe | College of Europe

We demonstrate how the use of weak instruments invalidates the identification of the cyclical response of spending. Conventional IV methods therefore fail to pin down the degree of cyclicity. We propose a new instrument, based on development aid flows. A test with recently developed robust IV estimators indicates that spending may be quite procyclical. The finding that governments in developed economies destabilise spending over the cycle has an important bearing on political economy theories, and the calibration of DSGE models of fiscal policy.

The effects of uncertainty in the euro area

Arne Gieseck | Carlos Canizares Martinez

European Central Bank, retired | National Bank of Slovakia

This paper estimates the effects of uncertainty shocks on economic activity in the euro area. To carefully identify the effects of uncertainty, we take the following approach. First, we build a large macro dataset with euro area wide data which we summarize by principal components. Second, we estimate a FAVAR model using four prominent measures of uncertainty and our large dataset. Third, we identify an uncertainty shock by imposing sign and narrative sign restrictions, borrowing from standard uncertainty literature and from recent monetary policy literature on information shocks, respectively. We find that uncertainty has a significantly negative effect on economic activity measures in the euro area, while having a muted effect on savings.

A latent weekly GDP indicator for Germany

Sercan Eraslan

Deutsche Bundesbank

This paper introduces a latent GDP indicator at a weekly frequency based on week-on-week growth rates of the GDP in Germany. To this end, I use a mixed-frequency dynamic factor model with quarterly, monthly and weekly indicators to extract a weekly factor approximating the latent weekly GDP growth rates. In addition, the employed methodology enables to create a weekly GDP series in levels, which is also of paramount interest for practitioners interested in analysing the current state of the economy at high-frequency. In a recursive nowcasting exercise for the German GDP growth I show that (i) the proposed index may provide a timely and data driven assessment of the GDP and (ii) may be beneficial to the nowcasting performance (iii) while its forecast performance weakens beyond the current quarter.

Financial Crises and Public Debt Sustainability

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University of Alicante

This work documents a historical disconnect between government debt and the unit cost of servicing the debt, $r - g$, for advanced economies over the last 150 years. Building on this novel evidence, this paper studies the relationship between financial crises and public debt sustainability. First, we show that neither public debt nor $r - g$ is successful to predict future financial crises. Second, we consider the interaction between the level of public debt and $r - g$, i.e., the total cost of servicing the debt, to study whether the severity of financial crises depends on the initial public finance conditions. We find that financial crises that coincide with initial vulnerabilities in the public sector balance sheet have a longer and deeper footprint on economic activity. Finally, we show that financial crises are not only followed by periods of higher public debt, but also by increases in $r - g$. The latter finding suggests that episodes of public debt instability following financial crises are not isolated, but systematic events in the history of advanced economies.

Green management, access to credit and firms' vulnerability to the COVID-19 crisis

David Aristei | Manuela Gallo

University of Perugia | University of Perugia

This paper investigates the consequences of the COVID-19 crisis on firms' performance and financial vulnerability. Exploiting longitudinal firm-level data from the World Bank's "Enterprise Surveys follow-up on Covid-19" for 20 European countries, we assess whether green management quality and pre-pandemic credit access difficulties affect firms' ability to withstand the negative impact of the pandemic. Our empirical results indicate that environmentally friendly firms are less vulnerable to the pandemic shock. In particular, the probabilities of pandemic-induced drops in sales and liquidity shortfalls significantly decrease as the quality of green management improves. Conversely, prior financing constraints strongly exacerbate the negative impact of the COVID-19 outbreak on firms' performance and amplify liquidity stress and financing problems. Credit-constrained enterprises are not only more likely to experience liquidity shortages and delays in payments and financial obligations, but they also face higher difficulties in accessing bank credit during the pandemic. Finally, we show that the COVID-19 crisis has hampered the beneficial role that green management exerted on access to credit in the pre-pandemic period. During the pandemic, the quality of green management does not affect the probability of obtaining credit and firms with sound environmental management have a lower demand for credit, possibly suggesting a slowdown in their green investment activity.

Credit ratings and investments

Razvan Vlahu

Dutch Central Bank

We study experimental coordination games to examine how inflated credit ratings affect bond market investment decisions. Upon observing a private signal about a firm's fundamentals (and potentially a credit rating), investors decide whether to finance a firm that can default or undertake a risky investment, choosing between low-risk and high-risk projects. We find that inflated ratings act as a coordination device and lead to more investment, affecting firm's project choice. Enhanced access to external funding bears positive economic effects as it allows for more firm investment in the efficient low-risk project but not necessarily in the high-risk project. Our findings suggest that inflated ratings strongly impact investors' beliefs, in particular the beliefs about the behavior of other investors.

How do macroprudential authorities set the countercyclical capital buffer?

Sophia Döme | Michael Sigmund

Financial Market Authority Liechtenstein | Oesterreichische Nationalbank

Since the introduction of Basel III, several countries have implemented the countercyclical capital buffer (CCyB) for the banking sector as part of their macroprudential framework. The Basel Committee on Banking Supervision (BCBS) suggests in its guidelines for national authorities to activate the CCyB in case of excessive credit growth as measured by the credit-to-GDP gap. We empirically analyze authorities' CCyB decision-making process with linear and non-linear models. We find that authorities in European countries neither follow the BCBS guidance nor the recommendations by the European Systemic Risk Board when setting the level of their CCyB rate. However, we show that if the BCBS guidance had been in place before the global financial crisis of 2007/2008, the capital requirement of the European banking sector would have been increased by approximately EUR 289 billion. We find evidence that the CCyB decision is driven by a positive cycle-neutral CCyB framework in normal times and the supervisory funding structure.

US Monetary Policy Spillovers To Emerging Markets: The Trade Credit Channel

London | Silvestrini

Aix-Marseille University, CNRS, Aix-Marseille School of Economics - European Commission Joint Research Center | Banque de France - Paris-Dauphine University

We analyze the effects of exogenous US monetary policy shocks on trade credit towards emerging markets, using a proprietary database on insured trade credit amounts. We show that a US monetary tightening leads to an increase in trade credit use in Mexico. Thanks to the granularity of our database, we are able to identify a higher demand for trade credit to substitute to other financial tools themselves restrained. This substitution effect is even larger for buyers who are more financially constrained. As we distinguish between the intensive and extensive margins, we show that the use of trade credit as a substitute only holds in a context of pre-existing relationships. Finally, we find a larger impact of US monetary shocks on trade credit denominated in US dollar relative to other currencies, arguing for a specific role for the dominant currency.

What shapes spillovers from monetary policy shocks in the United States to emerging market economies?

Erik Andres Escayola | Peter McQuade | Marcel Tirpák

European Central Bank | European Central Bank | European Central Bank

This paper studies the impact of the US Federal Reserve's tightening of monetary policy on EMEs and analyse the factors shaping these spillovers. We analyse the response of EME macroeconomic and financial variables to high frequency identified pure monetary policy shocks originating in the United States, building on the analysis of Jarociński and Karadi (2020) and Georgiadis and Jarociński (2022), and using a local projections empirical framework. The baseline results confirm that a surprise tightening of US monetary policy is associated with an immediate tightening of EME financial conditions, after which industrial production and inflation decline, with a peak effect after around a year and a half. We find that heterogeneity across EMEs is shaped by macro-financial vulnerabilities and domestic monetary policy actions. Domestic macro-financial vulnerabilities clearly matter, amplifying the sensitivity of EME to monetary policy shocks. Our findings also suggest that maintaining a prudent and responsible monetary policy stance, in line with the Taylor rule, helps to mitigate spillovers from US monetary policy.

Does Fiscal Policy Affect the Current Account? A Meta-Analysis

Josef Hollmayr | Jan Kuckuck

Deutsche Bundesbank | Deutsche Bundesbank

This paper offers a review of the literature on how fiscal policy affects the current account balance. Therefore we establish a purpose-built meta dataset which allows a systematic comparison of the results of all studies. Controlling for a variety of variables, in particular government investment can lower the current account balance. Furthermore, combining the meta dataset with additional data we find that openness and indebtedness are major drivers that influence fiscal policy to have an effect on the current account balance.

Under pressure: The impact of Euro Area sovereign stress on the Swiss franc and SNB policy

Martin Meier | Martin Gächter | Nicolas Tschütscher

University of Salzburg | University of Innsbruck | University of Liechtenstein

During the global financial and the European sovereign debt crises, the Swiss franc (CHF) experienced substantial appreciation pressure, which was associated with deflationary developments complicating the Swiss National Banks (SNB) mandate to guarantee price stability. In this paper, we examine the impact of euro area sovereign stress on the EUR-CHF and the real-effective exchange rate, and we analyze the SNB's policy response and its effects on foreign exchange markets. Our findings suggest that an increase in euro area sovereign stress leads to a highly persistent appreciation of the CHF in relation to the EUR and in real-effective terms. We also demonstrate that the SNB's foreign exchange interventions are closely linked to sovereign stress in the euro area and the movements in the exchange rate. While the SNB's foreign exchange interventions are effective in reducing the appreciation pressure in the short and medium run, the effect remains transitory.

A single monetary policy for heterogeneous labour markets: the case of the euro area

Sandra Gomes | Pascal Jacquinot | Matija Lozej

Banco de Portugal | European central Bank | Central Bank of Ireland

Differences in labour market institutions and regulations between countries of the monetary union can cause divergent responses even to a common shock. We augment a multi-country model of the euro area with search and matching framework that differs across Ricardian and hand-to-mouth households. In this setting, we investigate the implications of cross-country heterogeneity in labour market institutions for the conduct of monetary policy in a monetary union. We compute responses to an expansionary demand shock and to an inflationary supply shock under the Taylor rule, asymmetric unemployment targeting, and average inflation targeting. For each rule we distinguish between cases with zero weight on the unemployment gap and a negative response to rising unemployment. Across all rules, responding to unemployment leads to lower losses of employment and higher inflation. Responding to unemployment reduces cross-country differences within the monetary union and the differences in consumption levels of rich and poor households. We find that when monetary policy responds to unemployment developments, then this results in stronger unemployment decrease after expansionary demand shocks and lower unemployment increase after a contractionary supply shock. While this does lead to a faster and stronger increase in inflation, it also results in a fast return of inflation to lower levels after the supply shock. Responding to unemployment tends to lower inequality between and within countries of the euro area. If monetary policy ignores unemployment and responds only to inflation, this leads to larger fluctuations of output and (un)employment. Moreover, these fluctuations increase divergence between the euro area economies as well as within-economy divergence among households. The effect on between-household consumption differences is, however, different for expansionary and contractionary shocks. When the central bank does not respond to unemployment, the difference between consumption of different types of households goes in favour of the poor households after an expansionary demand shock, while after an inflationary supply shock this difference goes in favour of richer households.

Reshoring production in small open economies

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Central Bank of Ireland University of Limerick | European Central Bank |
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We analyse the macroeconomic effect of (partially) reshoring production. We focus on the case of small open economies in customs or currency unions, who do not have independent trade or monetary policy. We show that substituting imported with domestically-produced inputs can boost aggregate output in the long run, albeit after an economic slump during the adjustment process. Tradable production is greatly reduced during this transition, due to the impact of increased costs and prices on external competitiveness. The adjustment is quicker when reshoring is also pursued abroad, and is substantially longer if favoured firms increase their market power. While increased resilience is often touted as a motivation for reshoring, we demonstrate that a (partially) reshored economy has almost the same sensitivity to global shocks and is substantially more exposed to local shocks. Finally, fiscal policy can help mitigate the negative effects of the transition, in a way that is (ex-ante) budget neutral.

The impact of ownership structure on the market value of companies in response to COVID-19

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The paper focuses on the valuations of privately held companies and the differences with publicly traded companies in the EU market as a result of the first year of the COVID-19 pandemic. This exercise is done by employing a unique dataset of individually assessed companies' valuations from the brewing industry over the years 2019-2020. The results confirm the existence of a private company discount for different valuation multiples and indicate its increase during the pandemic. Also, a significant difference between the multiple related to the entire market capitalization of the industry and the median multiple is identified. This provides more detailed data on the differences with respect to ownership structure, but also information for practical use of certain multipliers for the valuation of privately held companies.

Monetary Policy and Inequality: a Two-way Relation

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We study the transmission of monetary policy in the presence of heterogeneous households and examine the implications when the share of constrained households is a function of monetary policy. We build an analytically tractable heterogeneous agents New Keynesian model (THANK) with an endogenous share of hand-to-mouth households. The transmission of monetary policy on aggregate demand is amplified in this setup by inequality between saver and hand-to-mouth households. The amplification effect depends on monopolistic rents (enhancing) and redistribution (mitigating). In difference to most THANK models, we refrain from the assumption of a full insurance steady state.

Trade liberalization, wage inequality, and monetary policy

Mariya Mileva | Wolfgang Lechthaler

California State University. Long Beach | Oesterreichische Nationalbank

We build a dynamic model of two countries, two sectors and two factors with firm heterogeneity and price rigidity to analyze the short-run and long-run consequences of trade liberalization for nominal and real wages and its interaction with monetary policy. We find that trade liberalization raises the real wages of all workers but might reduce the nominal wages of unskilled workers. The stance of monetary policy has a big impact on real wages in the short run and nominal wages in the long run.

Giving up the euro: good or bad idea?

Thomas Coudert | Blandine Zimmer

Large, EM Strasbourg Business School | Large, Sciences Po Strasbourg

This paper investigates whether Denmark, Sweden and the UK made the right choice in giving up the euro by examining the consequence of this decision on their GDP per capita. We use the synthetic control approach to create a counterfactual scenario of how their GDP per capita would have behaved if they had joined the euro area. Our estimates suggest that until 2010 only Denmark would have benefited from the adoption of the euro. In contrast, the non-participation of the UK and Sweden in the euro does not seem to have had an effect on their GDP. From 2010 onwards, however, we observe a significant divergence between their GDP and the counterfactual, revealing that Sweden and the UK would have lost out with the euro. Similarly, for Denmark, the potential gains from the euro appear to fade from 2010 onwards, as the gap between its GDP and the synthetic counterfactual begins to narrow.

The ECB's strategy review – gauging effects of target symmetry and forward guidance

Stefan Hohberger | Marco Ratto | Beatrice Pataracchia | Luca Onorante | Lukas Vogel | Lucian Briciu

Munich University of Applied Sciences | European Commission - Joint Research Centre | European Commission - Joint Research Centre | European Commission - Joint Research Centre | European Commission - DG ECFIN | European Commission - DG ECFIN

This paper analyses two central elements of the ECB's 2021 monetary policy strategy review through the lens of an estimated open-economy structural macroeconomic (DSGE) model of the euro area. These elements are (1) explicit symmetry of the (2%) inflation target (as opposed to less sensitivity to target undershooting), and (2) commitment to persistent monetary accommodation in a low interest rate environment (here interpreted as forward guidance). Both elements improve the ability to match the inflation target on average and reduce the risk of hitting the effective lower bound (ELB), although the magnitude of the gains in our scenarios is small. Results are qualitatively robust to departures from the assumption of rational expectations (RE) that reduce the responsiveness of households and firms to expectations about future shocks and policies.

A Decentralized General Equilibrium Model for International Trade Network

Ioannis Papastaikoudis

University of Cambridge

We study an international trade network model for one good among many economies (countries) from the social welfare viewpoint. We formulate the social welfare problem of the economies as a distributed optimization problem and we solve it with the use of a primal dual algorithm. The dual variables can be interpreted as the different prices of the good among different economies and the evolution of the prices is actually a decentralized tatonnement process. The overall problem can be viewed as a decentralized general equilibrium model for international trade network.

The puzzling effects of dissent in monetary policy committee

Blot Christophe | Hubert Paul | Labondance Fabien

**OFCE-SciencesPo & Université Paris Nanterre – EconomiX | Banque de France
Sciences Po – OFCE | CRESE - Université de Franche-Comté**

This paper investigates the financial market effects of dissenting voices in the ECB Governing Council meetings. We construct an index of dissent based on the ECB President's responses to journalists during press conferences. The ECB communication framework provides a clean identification strategy to analyze the effects and characteristics of dissent. We find that dissent has a negative effect on stock prices. We document that dissent is correlated to ex ante higher financial stress and high sovereign spreads and that when there is dissent during a meeting, the outcome decision of that meeting tends to yield more restrictive monetary policy surprises.

The role of digital technology in sustainable finance. New trends in macro financial linkage

Małgorzata Pawłowska

Warsaw School of Economics SGH

The aim of this paper is to investigate the impact of digital technology and sustainable finance on the relations between the financial sector and the real economy in EU. The IT revolution brought new factors that influenced the traditional banking market. Banks were forced to compete not only with other players from the banking sector but also with unregulated FinTech companies. Finally, based on the quantitative analysis this paper confirms that new technology has had an impact on bank lending especially our findings confirm the leading role of loans for households in the use of new digital technologies. Also, we confirm the impact of FinTech on profitability of traditional banks in the context of sustainable finance.

Normal Countries?

Jan Fidrmuc

Université de Lille

Some 30 years after its beginning, can we consider post-communist transition over? In this paper, I argue that *normalcy* should assess whether the post-communist countries stand out when set against other countries at similar levels of socio-economic development. To this effect, I propose a new measure of progress in transition – index of normalcy – which allows comparisons of progress in different socio-economic areas. The results suggest that the most advanced post-communist countries are already *normal*, that is, not much different from industrialized democracies at similar levels of development. However, more than half of post-communist countries still rather far from the benchmark of *normalcy*. Moreover, their performance across the indicators included in the analysis is very heterogeneous too.

Stock Market Bubbles and Monetary policy: a Bayesian Analysis

Arthur Galichère

University of Warwick

This paper develops and estimates a DSGE model with stock market bubbles and nominal rigidities using Bayesian methods. Bubbles emerge through a positive feedback loop mechanism supported by self-fulfilling beliefs and their movements are driven by a sentiment shock. This paper shows that stock market bubbles have significant importance to explain volatility in investment, output and also in inflation. Moreover, this paper shows that a monetary policy rule that targets changes in stock prices can help to diminish the impact of bubble sentiment shocks, and thus reduce volatility of the aggregate bubble and stabilise the economy.

BAYESIAN MULTIPLE-INDICATOR MIXED-FREQUENCY MODEL WITH MOVING AVERAGE STOCHASTIC VOLATILITY

Boriss Siliverstovs

Bank of Latvia

We suggest a Bayesian mixed-frequency multiple-indicator model with moving-average stochastic volatility that nests 1) U-MIDAS model of Foroni et al. (2015), 2) U-MIDAS model with MA-component of Foroni et al. (2019) and 3) multiple-indicator model with stochastic volatility of Carriero et al. (2015). The general models as well as its restricted versions can be efficiently estimated using the precision-based algorithm of Chan and Jeliazkov (2009) and Chan (2013). We re-examine the evidence presented in Foroni et al. (2019) on the usefulness of including a moving-average component in the mixed-frequency forecasting models. Our results provide additional information on the informative content of the MA-component in mixed-frequency data models based on out-of-sample model evaluation using either point or density forecasts.

Dynamic connectedness between credit risk and liquidity in EMU sovereign debt markets

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Universitat de Barcelona | Erasmus School of Economics | Universidad Complutense de Madrid

We examine the dynamic interconnection between sovereign credit and liquidity risk in ten euro area countries at the 5-year maturity with high-frequency data from MTS from January 2008-December 2018 using the extension of the TVP-VAR connectedness approach of Antonakakis *et al.* (2020). Our results indicate that for most periods net connectedness is from credit to liquidity risk. Still, this indicator is time-dependent, detecting some episodes where it goes from liquidity to credit risk. We set up an event study and found that the latter episodes can be related to several unconventional monetary policy measures of the ECB. Then, we examine the drivers of the connectedness indicator by means of a Probit model. Our results suggest that monetary policy shocks and economic policy uncertainty increase the probability of risk transmission from liquidity to credit, while global funding liquidity, tensions in financial markets and surprises in inflation and GDP are factors that reduce the such probability.

The impact of countercyclical bank capital release on lending rates

Grégory Levieuge | Cristina Jude

Banque de France | Banque de France

At the height of the COVID-19 crisis, banks in many countries were allowed to reduce their countercyclical capital buffer (CCyB) for the first time since its implementation. This experiment makes it possible to gauge the effect of a massive decrease in bank capital requirements on bank lending rates. In this paper, we first theoretically assess the transmission of a CCyB release in a Dynamic Stochastic General Equilibrium model with a banking sector and financial frictions. We show that such a measure effectively lowers bank lending rates, independently and also by reinforcing the impact of monetary policy easing. Then, relying on a dif-in-dif approach, we empirically confirm that releasing the CCyB in March 2020 had significantly, albeit modestly, lowered the bank lending rates to firms, partly due to the favorable indirect effect of the CCyB on the transmission of monetary policy. In contrast, this policy had no significant effect on the mortgage rates.

Public and private risk sharing: friends or foes?

Demosthenes Ioannou

ECB

Well-functioning risk-sharing arrangements are essential for the shock absorbing capacity and resilience of an economy, even more so for countries in a monetary union where the single monetary policy is unable to address asymmetric shocks. The common shocks that euro area member states have been facing over the past years are just that: common. Yet their impacts are far from equal across countries, implying that risk sharing remains an important issue. This paper discusses the different forms and channels of risk sharing and reviews the main arguments in favour and against the development of different forms of public and private risk sharing in the euro area, focusing in particular on whether they act as complements or substitutes. It proposes a stylised theoretical model of a monetary union to test the complementarity or substitutability between public and private risk sharing. While the model calibration finds that substitutability prevails, the model also contains an interesting complementarity whereby a central fiscal capacity makes private risk sharing more efficient, especially in crisis times. Our findings are relevant for the ongoing policy discussion on EMU deepening as the provision of public risk sharing as well as the overall degree of risk sharing are still comparatively low in the euro area.

Cross-Border Bank Flows and Monetary Policy: A Sectoral Perspective

Lorenz Emter | Peter McQuade | Swapan-Kumar Pradhan

European Central Bank | European Central Bank | Bank for International Settlements

This paper examines how the effect of monetary policy on cross-border bank flows varies by counterparty sector. We confirm the existence of a cross-border risk-taking channel, whereby relatively tighter monetary policy in source countries prompts banks to reallocate their lending toward safer foreign counterparties. Our analysis, utilising a confidential version of the enhanced sectoral breakdown of the BIS locational banking statistics, suggest that this holds for bank-to-bank flows, in a large sample of advanced and emerging market economies, during the post-GFC period (Q1 2014 to Q2 2021). However, the result for the non-bank financial intermediary sector shows the opposite sign, as tighter monetary policy leads banks to reduce the cross-border claims on NBFIs. We relate this to the differing effect of monetary policy on the riskiness of NBFIs compared to banks, as low rates and central bank asset purchases prompt NBFIs to reach for yield.

Information Acquisition ahead of Monetary Policy Announcements

Michael Ehrmann

ECB

How do financial markets acquire information about upcoming monetary policy decisions, beyond their reaction to central bank signals? This paper hypothesises that sharing information among investors can improve expectations, especially in the presence of disagreement or uncertainty about the economy. To test this hypothesis, the paper studies monetary policy-related content on Twitter during the “quiet period” before European Central Bank announcements, when policymakers refrain from public statements related to monetary policy. Conditional on large disagreement about the economic outlook, higher Twitter traffic is associated with smaller monetary policy surprises, suggesting that exchanging private signals among investors can help improve expectations.

Sustainable Investing Goes Mainstream: A Shift In Investor Behavior Toward Sustainable Mutual Funds

Camille Baily | Jean-Yves Gnabo

University of Namur | University of Namur

This study investigates the behavior of investors in sustainable investment funds in the United States over the past few years. Previous research has suggested that these investors are less sensitive to financial performance compared to investors in conventional funds. However, the growth of both demand and supply for sustainable investment products in recent years may challenge this assumption. Using data on 2,103 U.S. active equity mutual funds from August 2018 to December 2021, we provide evidence that investor sensitivity to past performance of sustainable funds has increased as sustainable investing becomes mainstream. In contrast to prior research based on earlier periods, we show that investors in sustainable funds are more sensitive to past performance than investors in conventional funds. We show that this strong sensitivity is driven by poor performance, indicating that sustainable investors are more likely to sell losing investments than their conventional peers. Our results also reveal that the flow-performance relationship is not convex for U.S. sustainable funds over the sample period, meaning that investors in these funds do not exhibit the typical behavior of chasing winners more intensely than selling losers. Furthermore, we find evidence of a "smart money" effect for sustainable funds, in which past money flows enhance fund performance. This result suggest that sustainable investors are financially smart in their investment decisions. Overall, our findings indicate that financial performance and sustainability are now complementary rather than substitutes for investors, contrary to traditional beliefs, and should therefore be considered jointly by fund managers when selecting assets.

Identifying Government Spending Shocks Using Government Shutdowns: A Narrative Restrictions Approach

Matija Lozej | Laura Moretti

Central Bank of Ireland | Central Bank of Ireland

We exploit US government shutdowns to identify government spending shocks and investigate their effects on output, private consumption, and investment. To identify government shutdown shocks, we apply narrative sign restrictions on shocks for the episodes when US government has shut down. We find that a government shutdown leads to a persistent and statistically significant reduction in real federal government compensation of employees. We interpret it as an indication that a government shutdown induces public-sector employees to move out of the sector following a shutdown. We also find that a government shutdown tends to have, after a delay, expansionary effects on private consumption, investment, and output, and that it tends to increase prices. These findings are consistent with an interpretation that the shift of employment away from the public sector increases private production, investment, and consumption.

Global Spillovers of the Fed Information Effect

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Bank of England

This paper sheds light on the open economy dimension of the Fed information effect, by evaluating its international spillovers on exchange rates, capital flows, and global economic activity. We provide empirical evidence that in response to unexpected increases in the Federal Funds rate associated with Fed information shocks, the dollar depreciates instead of appreciating. We provide evidence in favor of the hypothesis that this phenomenon occurs because FOMC announcements affect investors' risk appetite. Expansionary Fed information shocks increase investors' risk appetite and drive capital towards foreign markets in pursuit of higher yields. Conversely, contractionary Fed information shocks decrease investors' risk appetite and drive capital towards the US, causing an appreciation of the dollar vis-à-vis foreign currencies. We provide evidence that the Fed information effect is associated with large spillovers onto risk premia, global equity prices, cross-border credit, and ultimately, on global economic activity. These findings highlight the presence of global spillovers of the Fed information effect.

Phillips Multipliers in the Eurozone

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This paper provides new evidence on the inflation-unemployment trade-off both at the aggregate Euro Area and the individual member country level. We estimate dynamic Phillips multipliers using a local projection-instrumental variable approach where changes in inflation are regressed on exogenous changes in unemployment using well-identified monetary policy shocks as instruments. At the aggregate EMU level, we find a Phillips multiplier around -1.5, i.e. an exogenous increase in Eurozone unemployment by 1 percentage point leads to a fall in Eurozone inflation by 1.5 percentage points. Importantly, we find only small differences in Phillips multipliers between member states implying that by how much higher national unemployment transmits into lower inflation is relatively similar across EMU countries.

The Elasticity of Substitution between Native and Immigrant Labor: A Meta-Analysis

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Speaking of the labor market, immigration is one of the most debated topics, especially the effect of immigration on wages and employment rates. This paper summarizes the existing literature dealing with the elasticity of substitution between native and immigrant labor. We correct the average estimate for publication bias and examine the heterogeneity. Publication bias is likely in the literature estimating this elasticity as the literature provides all types of results. Contribution to the existing literature is enormous as there is no recent meta-analysis dealing with native and immigrant labor, especially with the elasticity of substitution between those two groups. Uncorrected mean implied elasticity from the existing literature is 12. The implied elasticity of substitution corrected for publication bias is around 20. In other words, immigrants and natives are imperfect substitutes but more substitutable than the existing literature assumes. Moreover, we will use the recently developed techniques which are all based on the Lombard effect to some extent to test for publication bias. We will implement a new p -uniform technique that uses the distribution of p -values. For examination of sources of heterogeneity in the literature, we will be presenting Bayesian model averaging as a baseline model accompanied by complementary frequentist model averaging as a robustness check. Please, take into consideration that by the Final Paper Submission Deadline (15 April 2023), I assume to have published this study at least as a working paper.

Financial integration dynamics and the role of inflation in the euro area

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In this paper, we study financial integration dynamics in the euro area with particular attention given to the role of state dependency and inflation. To measure different aspects of financial integration, we use the ECB's monthly financial integration indicators. Results from our regime-switching model suggest that financial integration trends change over time and financial disintegration periods are less persistent than other periods. Inflation, however, intensifies segmentation, especially during times of financial disintegration. The euro area is especially vulnerable to inflation spillovers when it comes to money, equity, and banking markets. Money and equity market integration proxies drop by roughly 4% and 5% with every percentage point increase in inflation. Additionally, inflation causes euro area ten-year sovereign bond yields to widen during disintegration periods.

Simple Analytics of the Government Investment Multiplier

JORDAN ROULLEAU-PASDELOUP

National University of Singapore

What are the aggregate effects of investing in public infrastructure? In this paper, we use a standard New Keynesian model to answer this question. We recast the model as a Markov chain and provide equivalence results with respect to existing solution methods. Our framework allows us to derive a simple matrix expression for the contribution of public capital. We show that this expression provides a unified framework to think about the effects of public investment in three scenarios: (i) normal times (ii) a short-lived liquidity trap and (iii) a long-lived liquidity trap.

How important are foreign banks in stabilising lending?

Jacopo Cimadomo

European Central Bank

This paper explores whether foreign banks stabilise or destabilise lending to the real economy in the presence of sovereign stress in the domestic economy and abroad. The presence of foreign intermediaries poses a fundamental, yet unexplored, trade-off. On the one hand, domestic sovereign shocks are broadly inconsequential for the lending capacity of foreign banks, given that their funding conditions are not hampered by such shocks. On the other, foreign intermediaries may react more harshly than domestic banks to a deterioration in local loan risk and demand conditions, or import shocks from their own sovereign. We exploit granular and confidential data on euro area banks operating in different countries to assess this trade-off. Overall, it is found that, under certain conditions, the presence of foreign lenders stabilises lending, thus mitigating the sovereign-bank nexus.

GOOGLE TRENDS IN NOWCASTING – EVIDENCE FROM THE OECD COUNTRIES

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Abstract This study examines Google Trends data's ability to nowcast GDP among the OECD economies. Google Trends data has the potential to be superior in nowcasting real-time GDP without lags since it offers efficient and up-to-date information about the current economic situation based on households' searches in Google. We verify the Google Trends forecasting power, which is model and country specific. The consumer confidence model was superior in nowcasting the Finnish GDP, "Grants & Financial Assistance" searches nowcasted the Japanese GDP during the Covid-19 pandemic, and the DFM outperformed other models in the US. We also got evidence that nowcasting indicators are connected. Consumer confidence was related to the "Social Services" category searches in the US. In sum, Google searches provide nowcasting information about the future

Currency choices in international trade: are services different from goods?

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NIPE/Universidade do Minho**

Despite the increasingly important role of services in international trade, the literature studying the determinants of currency choices in these transactions focuses exclusively on trade in goods. Relying on a novel dataset detailing the currency used by Portuguese firms in extra and intra-EU services and goods trade, we offer new evidence about currency choices in services transactions and assess to what extent there are meaningful differences relative to goods trade. Our results are consistent with a key role of complementarities in price setting and input-output linkages in shaping currency choices both in goods and in services trade. Moreover, our findings indicate that those two mechanisms contribute to a less prevalent role of the US dollar in services trade that does not involve the US than in goods trade.

Consumption Taxation to Finance Pension Payment

Matthias Schön | Nikolai Stähler | Kilian Ruppert

Deutsche Bundesbank | Deutsche Bundesbank | Deutsche Bundesbank.de

This paper assesses how a permanent shift from financing a public pay-as-you-go pension by direct (labour income) taxation towards financing it by indirect (consumption) taxation affects the economy (in the short and long-run) and welfare. To this end, we use an overlapping-generations-augmented two-region general equilibrium framework with search frictions on the labour market. The analysed tax reform partially shifts the tax burden from domestic to foreign producers and lowers marginal costs of domestic production and generates positive domestic macroeconomic effects. In addition, the partial postponement of a household's tax burden to retirement leads to higher savings and increases domestic assets. However, for some time after implementation of the tax reform, the policy-induced increase in consumption costs makes retirees and households close to retirement worse off. Moreover, the increase in domestic net foreign assets implies that consumption of foreign households eventually falls, which stands in contrast to what is commonly found in models without an endogenous savings motive.

Forward Guidance in a Liquidity Trap Under Alternative Monetary Regimes

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This paper examines how the effectiveness of central bank forward guidance depends on the monetary policy regime in a liquidity trap. It argues in theoretical literature that alternative monetary regimes amplifies the positive benefits that central bank creates for forward guidance. Recent switching to a new monetary policy strategy by the Federal Reserve makes it possible to compare empirically the effects of forward guidance under flexible average inflation targeting and inflation targeting in a liquidity trap. Specially, inflation expectations in US respond more favorably to forward guidance with alternative monetary regime than inflation targeting, which can help the short-term interest rates to move away from the zero lower bound. However, with a significant increase in short-term proinflationary risks, attempts to contain inflation expectations by forward guidance is rather ineffective under the average inflation targeting. Moreover, switching from inflation targeting may additionally contribute to a de-anchoring of long-term inflation expectations under considerable uncertainty.

The Impact of Carry Trade Activity on the Transmission of Monetary Policy

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Currency markets are shaped by a variety of puzzles and influenced by the current monetary policy stance. This gives rise to carry trade strategies that seek to exploit existing global interest rate differentials. In this paper, we study how carry trade activity affects the transmission of monetary policy on currency markets. After monetary and non-monetary news from the central bank, investors may quickly unwind their positions in currencies featuring high-carry trade activity. To infer these effects from data, a threshold vector autoregressive model is fitted to discriminate between different regimes of carry trade activity and estimate the effects of monetary policy shocks for a large set of currencies vis-à-vis the US-dollar. Empirical evidence shows that carry trade activity indeed impacts the transmission of monetary policy to exchange rate markets, causing different adjustment dynamics. Thus, we conjecture that the exchange rate channel and its behavioral component is an important dimension for monetary policy and needs to be taken properly into account.

The Effect of Pandemic Crises on Fertility

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**International Monetary Fund, University of Palermo | University of Palermo |
University of Palermo**

This paper examines the dynamic effects of pandemic crises on fertility rates for a large, unbalanced sample of 186 developed and developing countries, during the period 1996-2019. We find that major historical pandemics have been associated with significant and persistent declines in fertility rates of about 2 percent, on average. These effects are larger for more severe pandemics, in advanced economies, and for younger female cohorts.

Institutional Framework of Monetary Integration in West Africa

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Institutional Framework of Monetary Integration in West Africa ObjectivesThe aim of this paper is to examine the core institutions underpinning the creation of the Eco currency and how they can best be shaped to achieve the objectives of the single currency. By analysing the political, legal, and cultural institutions of Eco, the paper assesses the impact of these institutions in the creation of the common currency. BackgroundEconomic Community of West African States (ECOWAS) is in an advanced stage of establishing a single currency with several setbacks and challenges encountered in the launch of the Eco currency. A lot has been written on economic considerations and benefits of the single currency. Mindful of the fact that the different ECOWAS countries have different objectives for establishing a single currency, and the mistrust in the region after the unilateral announcement by West African Economic and Monetary Union (WAEMU) states of their intention to change the name of the CFA Franc to Eco, an effective institutional framework is pertinent for a successful launch of the single currency. Whereas economic and monetary factors are pertinent for a successful creation of a single currency and have been extensively researched, socio-legal and political factors are also pivotal for the success of the single currency and the reason for this paper focus on institutional drivers of the common currency. Methodology/approachThe paper utilises a normative approach to analyse monetary institutions of ECOWAS to decipher the strength of Eco institutions in sustaining the single currency. This is done through institutional perspective of monetary unification and its application in ECOWAS. Findings/ResultsLegal, political, and cultural divergence can be managed with effective institutions by ECOWAS member states. Nigeria argued by scholars to pose disproportionate risk to the common currency can effectively be contained with efficient monetary policy and effective institutions. Research/policy implicationWhile economic factors are pertinent to the creation of the Eco single currency, this paper highlights the importance of effective political, legal, and cultural institutions to harness economic considerations if the common currency is to be successfully launched in 2027.

GVC exporter performance during the COVID-19 pandemic: the role of supply bottlenecks

Laura Lebastard | Marco Matani | Roberta Serafini

European Central Bank | European Central Bank | European Central Bank

We quantify the causal impact of the COVID-19 pandemic and the ensuing disruptions to Global Value Chains on exporters. Specifically, we compare the export performance of the firms involved in GVCs - i.e. that both import and export - and simple exporters during the pandemic, using monthly data at the firm-product-partner country level for all French exporters during the period January 2018-December 2021. The monthly frequency of the data gives us a detailed picture of the trend in obstacles to GVC firms in obtaining a timely supply of foreign imported inputs. We use difference-in-differences and event-study methods to distinguish various phases since the outbreak of the pandemic. The first phase was characterised by lockdowns, in France and abroad, between February and April 2020. During this period, exports among GVC and non-GVC firms alike dropped abruptly, mainly as a result of a contraction in global demand. However, we find that GVC firms performed significantly worse than simple exporters, as GVC firms also had to contend with a global negative supply shock. The second phase (May to August 2020) was characterised by the reopening of economies across the world. For both GVC and non-GVC firms, this period recorded some level of export recovery, though much less so for GVC firms. In the third phase, from September 2020 to December 2021, supply bottlenecks emerged and gradually intensified. While exports among non-GVC firms benefited from the pent-up demand and accumulated savings, GVC firms remained constrained due to the persistent non-availability of imported inputs. This explains the sizeable difference in the export performance between GVC and non-GVC firms during the supply bottleneck phase compared to the first lockdown phase. The probability of firm survival followed a similar trend to that observed for export performance. The results also suggest that firms relatively more downstream in the value chain were hit harder, particularly during the first lockdown and the supply bottleneck phase. At the same time, sourcing key imported inputs from more than one country reduced the negative effect of the pandemic, suggesting that more diversified sourcing networks for core inputs partially shielded companies from shocks.

The financial effects of carbon price shocks

Pablo Anaya Longaric

European Central Bank

This paper studies how carbon price policies affect stock prices and investment fund flows in the euro area, the United Kingdom and the United States. I use a series of carbon price surprises resulting from regulatory changes in the European Union Emission Trading Scheme, which is the European carbon emission cap and trade system. I find that an exogenous increase in carbon prices increase low emissions stock price indices in the euro area, while it decreases high emissions stock price indices. Similarly, flows into sustainable investment funds domiciled in the euro area increase as a response to the shock. These two results, taken together, provide some evidence suggesting that carbon price policies could lead investors to reallocate their portfolio towards sustainable assets. Moreover, the carbon price shock has no effect on stock prices in the United Kingdom and the United States, but it increases flows into environmental funds in these two countries.

Prescriptions for Monetary Policy when Inflation Is High

Ales Marsal

National Bank of Slovakia

Inflation in most western advanced economies has been rising at a fast pace since the middle of 2021. The necessary condition for central banks to maintain price stability is to prevent temporary shocks to inflation from feeding into the mechanisms of wage and price formation (Bernanke 2007, Draghi 2014). The monetary theory prescription to avoid these self-fulfilling inflation expectations and prevent long-term inflation expectations to de-anchor is to follow Taylor principle, according to which the nominal interest rate should rise more than proportionally with inflation. We show that once the inflation is high, the distribution of prices across products widens and inflation uncertainty rises, the Taylor principle is no longer sufficient for inflation stability. The anchoring of inflation expectations instead calls for strict inflation targeting and abstaining from virtually any aim to stabilize the real side of the economy.

Economic Policy Uncertainty in Europe: Spillovers and Common Shocks

Tomáš Šestořád | Jaromír Baxa

Czech National Bank | Charles University

This paper aims to estimate the spillovers of economic policy uncertainty in Europe and to compare the effects of common and country-specific uncertainty shocks on economic activity, prices, and monetary policy. We first estimate the spillovers and total connectedness from generalized forecast error variance decompositions of a time-varying parameter VAR model, in which we include the EPU indices of European countries. We show that about half of the variation of the EPU indices is explained by uncertainty spillovers, although the assessment of spillovers from individual countries has not been robust across the specifications we have considered. However, based on the panel VAR estimates, we show that only the common shock has quantitatively large effects on all macroeconomic variables, and this result appears in all specifications, despite some uncertainty regarding the contributions of countries. Our results imply that policymakers should not limit their attention to domestic uncertainties.

Density forecasts of inflation: a quantile regression forest approach

Michele Lenza | Ines Moutakacher | Joan Paredes

European Central Bank and CEPR | ENSAE | European Central Bank

Assessing the future implications of economic shocks for the inflation dynamics is a fundamental challenge for medium-term oriented central banks, such as the European Central Bank (ECB). We show that a random forest, capturing a general non-linear relationship between euro area inflation and a large set of determinants, performs well in an out-of-sample evaluation of point and density forecasts over the last two decades. The random forest performs similarly to state-of-the-art linear benchmarks over the full sample under analysis and, hence, it complements rather than substitutes more conventional techniques. Remarkably, however, the random forest proves particularly competitive in capturing the long period of low inflation in the pre-COVID decade and combining its forecasts with those of linear models leads to gains in forecasting accuracy.

Joint quantile models to decompose the scale and shape dynamics of stock return distributions

Jim Griffin | Gelly Mitrodima | Jaideep Oberoi

**UCL, Department of Statistical Science | LSE, Department of Statistics | SOAS
University of London, School of Finance and Management**

We explore time variation in the shape of the conditional return distribution using a model of multiple quantiles. We propose a joint model of scale (proxied by the interquartile range) and other quantiles standardised by the scale. The model allows us to estimate the conditional scale and shape of the distribution, which are both time varying, in one step. We find that, once we capture the dynamics of the scale effectively, the time variation in the shape allows a simpler interpretation.

Trust and Labor Laws

Shashitha Jayakody | David Morelli | Melania Nica | Jaideep Oberoi

Kent Business School, University of Kent | Kent Business School, University of Kent | Queen Mary, University of London | SOAS University of London

We investigate the influence of generalized trust on labor regulation. Our findings show that OECD countries with a high level of trust chose to implement less stringent labor dismissal laws, suggesting that trust acts as a substitute for labor laws. We find that in a within-country analysis, trust acts as a substitute for labor laws in countries that are exposed to a low level of expropriation whilst trust acts as a complementary for labor laws in countries that are exposed to a greater level of expropriation. Furthermore, we validate the substitution effect by showing that trust positively relates to higher foreign direct investment flows. Our findings imply that having strong political institutions that protect the workforce through informal institutions could improve economic outcomes.

The impact of Russia's invasion of Ukraine on the Swiss economy - a SVAR approach

Jonas Bruhin | Rolf Scheufele

University of St. Gallen, Swiss National Bank | Swiss National Bank

We quantify the impact of Russia's invasion of Ukraine on the Swiss economy using data on historical geopolitical events. Applying a structural VAR approach based on sign and narrative sign restrictions, we find that the war has exerted a significant drag on foreign and domestic demand and has pushed inflation up substantially. A counterfactual exercise suggests that annualised Swiss GDP growth were 1.2 and 2.4 percentage points higher and annualised quarter-on-quarter Swiss inflation 3.6 and 2.8 percentage points lower in 2022Q1 and 2022Q2 if Russia would not have attacked nor threatened Ukraine. Sidemark: We are about to apply our methodology to other European countries.

Non-linear dimension reduction in factor-augmented vector autoregressions

Karin Klieber

Oesterreichische Nationalbank

This paper introduces non-linear dimension reduction in factor-augmented vector autoregressions to analyze the effects of different economic shocks. We argue that controlling for non-linearities between a large-dimensional dataset and the latent factors is particularly useful during turbulent times of the business cycle. In simulations, we show that non-linear dimension reduction techniques yield good forecasting performance and help to improve inference. In an empirical application, we simulate a monetary policy as well as an uncertainty shock before and during the COVID-19 pandemic. Those two applications suggest that the non-linear FAVAR approaches are capable of dealing with the large outliers caused by the COVID-19 pandemic and yield reliable results in both scenarios.

Bank Lending and Firms' Internal Capital Markets following a Deglobalization Shock

Björn Imbierowicz | Arne Nagengast | Esteban Prieto | Ursula Vogel

**Deutsche Bundesbank | Deutsche Bundesbank | Deutsche Bundesbank |
Deutsche Bundesbank**

Deglobalization and market fragmentation are increasing since the global financial crisis of 2007 to 2009. This paper investigates the implications of a deglobalization shock for bank lending and ensuing effects for the real economy. Using the outcome of the Brexit referendum, we find that after the shock (more prudent) banks in Germany decrease their lending to (less profitable) firms located in the UK and lend more to firms outside the UK, in particular to firms which are owned by German multinational corporations (MNC). The credit supply shock to UK firms causes a reduction of employment compared to non-UK firms unless UK firms are subsidiaries of an MNC. MNC shield their equity investment in these firms by providing funding through their internal capital markets what alleviates the negative real effects of the credit supply shock. Our results highlight both the positive as well as the negative effects of international integration as they suggest that a deglobalization shock increases international financial frictions which exacerbate the negative real effects for affected firms but are mitigated when firms are internationally integrated.

Forecasting market returns with implied correlation: The benefits of using horizon-specific information

Jaideep Oberoi | Xiaohang Sun | Nikolaos Voukelatos

School of Finance & Management, SOAS University of London | Kent Business School, University of Kent | Kent Business School, University of Kent

Option-implied correlation has been shown to be an efficient predictor of market returns. We decompose implied correlation into a high-frequency and low-frequency component to examine whether its informational content is horizon-specific. We show that the high-frequency component is a robust predictor of market returns at shorter horizons, outperforming the original series of implied correlation. Similarly, the low-frequency component optimally predicts market returns at longer horizons. Decomposing implied correlation substantially improves the out-of-sample predictability of market returns at horizons of up to one year.

Forecasting GDP growth: the economic impact of COVID-19 Pandemic

Ioannis Vrontos | John Galakis | Ekaterini Panopoulou | Spyridon Vrontos

Athens University of Economics and Business | Iniohos Advisory Services | Essex Business School | University of Essex

The primary goal of this study is to effectively measure the impact of a severe exogenous shock, such as the COVID-19 pandemic on aggregate economic activity in Greece and other five Euro Area economies, namely Germany, France, Italy, Spain and Belgium. The class of linear and quantile predictive regression models is proposed for the analysis of real GDP growth, and a Bayesian approach for model selection is developed, by using a computationally flexible Markov chain Monte Carlo stochastic search algorithm that explores the posterior distribution of linear and quantile models, and identifies the relevant predictor variables. Our analysis confirms that the outbreak of the pandemic had a profound effect on the economies under study, and reveals that different predictor variables are able to explain different quantiles of the underlying real GDP growth distribution for the six Euro Area countries, suggesting that the quantile modelling approach improves the ability to adequately explain real GDP series compared to the standard conditional mean approach that explains only the average the relationship between real GDP growth and several predictor variables.

Regional Fiscal Spillovers: The Role of Trade Linkages

Davide Furceri

IMF

This paper examines how fiscal shocks in a given economy affect foreign regions through regional trade linkages. Applying the local projection method to a panel of 132 NUTS-2 regions in 15 European countries during the period 2001-2020, we find that countries-to-regions fiscal spillovers are positive, statistically significant, persistent, and non-negligible in size. In addition, fiscal spillovers tend to be larger when the recipient region experiences a recession, when monetary policy of the recipient country is at the zero-lower-bound, and when the recipient region and the source country are both part of the European Monetary Union (EMU).

What Drives Labour Supply in the Long-Run?

Atanas Hristov

DG ECFIN, EU Commission

I use a broad-range set of labour market models and out-of-sample forecasts to assess their predictive ability among 29 market economies (EU27 plus UK and US) at different horizons (1,5 and 10 years ahead) with annual data over the period 1960-2021. I use univariate and multivariate autoregressive models (autoregressive [AR], vector autoregressive [VAR] and vector error correction [VEC] specifications, estimated using frequentist methods), including information about post-tax wages, macroeconomic developments, and income inequality. I find, in general, that the VEC specifications consistently outperform its standard competitors—based on the root mean squared prediction error (RMSPE) and on the accuracy in predicting the direction of change. Often, the RMSPE and directional accuracy gains of the VEC model are shown to be statistically significant. I argue that the VEC model with heterogeneity is successful because it correctly estimates the income effect.

Sectoral shocks, labor mobility and heterogeneity in price/wage stickiness

Ernil Sabaj

University of warwick

In this paper, I use a Bayesian likelihood approach to contribute to the debate on the origins of business cycles. I estimate a multi-sector New Keynesian model for the US economy and provide support for the idea of the importance of studying sectoral shocks. I incorporate real and nominal frictions and focus on sectoral and aggregate structural shocks. The findings from the estimation, suggest that the assumption of price/wage heterogeneity across sectors leads to better estimates on sectoral parameters such as labor mobility in an economy. The version of the model with sectoral data explains more of the variability in output from sectoral shocks compared to the version of the model with aggregate data and aggregate shocks. This result brings forward further evidence in support of using multi-sector models versus one-sector model for macroeconomic analysis.

The Policy Mix in a Monetary Union: Who Bears the Burden of Asymmetric Shocks' Stabilisation?

Christos Mavrodimitrakis

University of Reading

We utilise a standard reduced-form neo-Keynesian model in a monetary union, in which the monetary authority and the fiscal authorities strategically interact, to explore who, under alternative institutional arrangements (strategic and fiscal regimes) and shocks' configurations, bears the burden of asymmetric shocks' stabilisation. We show that in the core/periphery fiscal regime, described by an asymmetry in the sequence of moves between the core and the peripheral member-states, asymmetric shocks pass through at the union level when there are strategically significant spill-over effects and the monetary policy's and fiscal policy's instruments are not perfect substitutes in the stabilisation process. The monetary authority reacts to asymmetric shocks, but does not succeed in fully offsetting them. The first best implies the coordination of fiscal policies. A second best might be achieved by the fiscal leadership strategic regime (a form of implicit coordination), when there are strong interconnections in the union, and/or inducing the fiscal authorities to use fiscal policy instruments that directly decrease inflation, such as taxes, production subsidies or public investment, when there is a strong cost channel of monetary policy.

Uncertainty and innovation in renewable energy

Luca Bettarelli | Davide Furceri | Pietro Pizzuto | Nadia Shakoor

**University of Palermo | International Monetary Fund, University of Palermo and
RCEA | University of Palermo | University of Palermo**

This paper investigates the impact of economic and policy uncertainty on green innovation for a sample of 64 advanced and emerging market economies during 2000-2021. Our results show that increases in uncertainty lead to a long-lasting decrease in green innovation, measured by the number of new renewable energy patents. This effect holds for a wide set of technologies, it is larger during recessions and periods of higher financial stress, and in countries with less stringent environment protection regulations.

Capital Flow Liberalization and Bank Credit Risk

Athanasios Andrikopoulos | Kexin Li | Zhongfei Chen

University of Hull | Peking University HSBC Business School. | Jinan University

Using a panel of annual data for 5695 banks from 72 economies and every continent, during 1998–2018, we study the influence of liberalization on capital inflows. We find that capital inflow liberalization has a robust and positive impact on bank credit risk, proxied by non-performing loans and loan loss provisions. By further exploring this relationship, we find that the positive effect is evident when bond, money, and financial credit markets, which broaden firms' financing channels, are liberalized. Emerging markets mainly drive this positive effect. Capital inflow liberalization intensifies banks' competition and risk appetite and eventually increases bank credit risk. Specifically, openness reduces banks' credit growth and net interest rate margin and improves non-interest income. As expected, this positive effect is mitigated within large and competitive banks, banks with more assets, or branches. Furthermore, tightening macroprudential policies help to mediate the positive shock of capital inflow liberalization on bank credit risk.

Environmental policies and innovation in renewable energy

Luca Bettarelli | Pietro Pizzuto | Davide Furceri | Nadia Shakoor

University of Palermo | University of Palermo | IMF | University of Palermo

This paper investigates the effect of Climate Change Policies (CCPs) on green innovation, for a sample of 40 economies, during the period 2000-2021, across 5 economic sectors. We measure green innovation by counting the number of new renewable energy patents at country/sector/year level, while the degree of stringency of CCPs at country/year level is retrieved from the OECD. We employ a dynamic setting showing that CCPs successfully foster green innovation, with the positive effect that gradually increases over time. We test the robustness of our baseline results through an Instrumental Variable (IV) approach. Moreover, we shed light on different sources of heterogeneity potentially mediating the link between CCPs and green innovation, e.g. type of policy and political and economic conditions of countries. Finally, we fully exploit our 3-dimensional dataset to further improve our identification strategy, thanks to the inclusion of a comprehensive battery of fixed effects: country-sector, country-year and sector-year.

Changing Patterns of Risk-Sharing Channels in the United States and the Euro Area

Massimo Giuliodori | Jacopo Cimadomo | Andras Lengyel | Haroon Mumtaz

**University of Amsterdam | ECB | University of Amsterdam | Queen Mary
University of London**

In this paper, we assess how risk-sharing channels have evolved over time in the United States and the euro area, and whether they have operated as ‘complements’ or ‘substitutes’. In particular, we focus on the capital channel (income from cross-ownership of productive assets), the credit channel (interstate bank lending), and the fiscal channel (federal or cross-country transfers). We offer three main contributions. First, we propose a time-varying parameter panel VAR model, with stochastic volatility, which allows us to formally quantify time variation in these risk-sharing channels. Second, we develop a new test of the complementarity vs. substitutability hypothesis, based on the time-varying impulse responses to idiosyncratic shocks. Third, for the United States, we explain time variation in the risk-sharing channels based on some key macroeconomic and financial variables.

Bank Manager Sentiment, Loan Growth and Bank Risk

Frank Brueckbauer | Thibault Cézanne

ZEW Mannheim | University of Mannheim and ZEW Mannheim

We build a textual score measuring the tone of bank earnings press release documents. We use this measure to define bank manager sentiment as the variation in the textual tone score which is orthogonal to bank-specific and macroeconomic fundamentals. Using this definition of sentiment, we present evidence on how bank managers' systematic over-optimism affects the amount of credit that they supply to the real sector. Our empirical evidence suggests that decisions on the volume of new loans partially depend on past realizations of economic fundamentals, implying that loan growth and contemporaneous economic fundamentals might be systematically disconnected. Furthermore, we show that over-optimism on the part of bank managers spills over to their equity investors, who seem to perceive banks with high bank manager sentiment as having a lower systemic risk.

Tax competition and socio-spatial segregation

Michael Graff

ETH Zurich, KOF Swiss Economic Institute

This paper discusses the theoretical justifications of Swiss *internal* tax competition, addresses its normative justifications and questions some of the assumptions that are widely accepted as certainties and the validity of some of its premises. An analysis of a data set on tax rates, house prices and poverty indicators for the 26 Swiss cantons since the mid-1980s shows that inter-cantonal tax competition (notwithstanding the intended impact on prudent management of public expenditure, taking into account the preferences of taxpayers) has reinforced the socio-spatial segregation between the cantons. Since Swiss tax competition takes place not only at the cantonal but also at the intra-cantonal community levels, the findings reported here are likely to underestimate the relationships rather than overestimate them. Last but not least, to complete the picture, the paper will summarize Switzerland's role in *international* tax competition.

E pluribus plures. Shock dependency of the USD pass-through to real and financial variables

Johannes Gräb | Massimo Ferrari Minesso

European Central Bank | Exchange rate, USD, pass-through, VAR

This paper quantifies the pass-through of a US dollar appreciation on trade variables and domestic financial conditions in a panel of 34 countries. Pass-through coefficients are highly shock-dependent: if the appreciation is driven by a US expansionary shock, the positive effects of stronger global demand -the "real" channel- dominate the negative effects of a stronger dollar -the "exchange rate" channel. As a result, a positive US demand (supply)-drive appreciation expands global trade and stock valuations up to 2.2 (2.5) and 8% (15%) respectively, while if the appreciation is driven by a monetary policy shock the sign is opposite, leading to a contraction in the order of 2.5% (3%) depending on the country. The coefficients also exhibit a large degree of cross-country heterogeneity, we find that financial and trade exposure to the US, trade openness and USD invoicing shares explain up to 60% of the USD pass-through after demand and supply shocks. Cross-country differences, instead, are not explained by dollar invoicing if monetary policy or risk shocks determine USD movements. We explain this finding with the endogenous policy reaction of monetary authorities in emerging markets that stabilizes the exchange rate against the dollar and weakens the invoicing channel of dollar shocks.

CBDC Policies in Open Economies

Michael Kumhof

Bank of England

We study the business cycle and welfare implications of introducing an interest-bearing retail CBDC, competing with bank deposits as medium of exchange, into an estimated 2-country DSGE environment. CBDC issuance of 30% of GDP increases output and welfare by around 6% and 2%, respectively. Financial shocks account for around half of the variance of aggregated demand and inflation, and the bulk of the variance of financial variables. An optimized CBDC interest rate rule that responds to a credit gap achieves maximum welfare gains of more than 0.3% over and above the gains of 0.4% available from a Taylor rule for the interest rate on reserves, and significantly more if accompanied by automatic fiscal stabilizers. CBDC policies can significantly reduce the volatilities of domestic and cross-border banking flows and of the exchange rate. A Ramsey optimal policy requires a steady state quantity of CBDC of over 40% of annual GDP.

Uncertain Spillovers: The Effect of Global Tail Risks on Monetary Policy Transmission

Maximilian Schröder

BI Norwegian Business School

We extend the FAVAR model of Bernanke et al. (2005) and develop a quantile FAVAR (QFAVAR) model and an efficient estimation algorithm. The quantile factors and mean factor share vector autoregressive (VAR) dynamics, thus, allowing for rich dynamics in a very parsimonious way. This framework allows us to not only revisit the role global shocks play for the transmission of monetary policy to the U.S. economy, but also to investigate how the transmission depends on the distribution of these global shocks. While allowing for a larger degree of flexibility, our modeling framework preserves computational tractability and is hence particularly suitable for analytical work at policy making institutions.

Corporate taxes, productivity and business dynamism

andrea colciago | Vivien Lewis | Branka Matiska,

Dutch Central Bank and University of Milano Bicocca | Bundesbank | CERGE-EI

We identify three key facts in response to an unexpected corporate tax rate reduction in the United States: (i) labor productivity displays a persistent increase (ii) firm entry displays an initially muted response to the shock, and it then increases persistently (iii) expansionary uses of labor increase by more than production labor. To rationalize these empirical findings, we build a New Keynesian dynamic model where the pool of heterogeneous producers is endogenous, and the creation of new firms requires labor. Lower corporate taxes attract new firms to the market by increasing the discounted value of future profits. This leads to a higher demand for labor for expansionary purposes, and to a higher real wage. The latter dampens the initial response of entry and entails higher fixed operational costs. As a result, just firms with higher productivity will break even on their costs, inducing an increase in aggregate productivity.

Loan Market Dynamics and Housing Prices: A SVECM Application

Vance L. Martin | Elias Oikarinen

University of Melbourne | University of Oulu & Aalto University

A 6-variate structural vector-error correction model is specified to investigate the contributions of loan supply and demand shocks together with housing market shocks, on housing loan expansion and housing prices. Demand and supply shocks in output markets as well as monetary policy shocks are also identified, with identification of all shocks based on a combination of short-run and long-run restrictions. Using Finnish data from 1985 to 2020, the results show that loan supply shocks play a major role in loan and housing price cycles over time, whereas loan demand shocks are important in the 1980s, but have limited impact thereafter.

Time-Varying Effects of ECB Policy Announcements

Max Breitenlechner | Daniel Gründler | Johann Scharler

University of Innsbruck | University of Innsbruck | University of Innsbruck

We use a factor-augmented VAR with time-varying parameters to study the transmission of monetary policy shocks and central bank information shocks associated with ECB announcements. We find time-variation in the volatilities of monetary policy shocks and information shocks and in the transmission of these shocks to industrial production and prices. Monetary policy shocks and information shocks both exerted temporarily weaker effects on industrial production around 2010, at the height of the European sovereign debt crisis. The effect of information shocks on prices remained relatively stable, while policy shocks gave rise to increasingly larger price responses until 2015. Moreover, our results suggest that the time-variation in the transmission of monetary policy shocks is linked to changing strengths of the interest rate channel, the credit channel, and the exchange rate channel.

Macprudential Policies and Bank Risk-taking under Persistently Low-interest-rate Environment

Jose David Garcia Revelo

Universidade Catolica Lisboa

This paper investigates whether macroprudential policies could effectively mitigate the banks' risk-taking behaviour under scenarios of extended periods of accommodative monetary policy. To some extent, attempts to determine what kind of macroprudential tools are better suited for this task. By exploiting an unbalanced panel data set covering 1074 commercial banks from 38 countries from 2010 to 2018, this research finds that there has been indeed a worsening of the banks' risk-taking behaviour in the last decade, which might be offset by more stringent instruments targeting borrowers, bank capital and banks' credit management policies. Borrower-based instruments and measures targeting banks' credit management policies are the most effective instruments to counteract the effects of (extreme) scenarios of persistent monetary accommodation. Accounting for bank-specific characteristics, it appears that capital-based and borrower-side instruments are more effective on banks weakly capitalized or with limited liquidity, while instruments targeting banks' credit management policies are more effective on heavily capitalized banks with abundant liquidity. Finally, it comes out that the three groups of macroprudential instruments are more effective in less concentrated markets. The article provides meaningful insights for policymakers on how, when, and on which instrument to take policy actions or implement.

“Crime and Punishment”? How Banks Anticipate and Propagate Global Financial Sanctions

Mikhail Mamonov | Anna Pestova | Steven Ongena

CERGE-EI | CERGE-EI | University of Zurich, KU Leuven, and CEPR

We study the impacts of global financial sanctions on banks and their corporate borrowers in Russia. Financial sanctions were consecutively imposed between 2014 and 2019, allowing targeted (but not yet sanctioned) banks to adapt their international and domestic exposures in advance. Using a staggered difference-in-differences approach with in-advance adaptation to anticipated treatment, we establish that targeted banks immediately reduced their foreign assets and actually increased their international borrowings, compared to similar other banks. Once sanctioned, however, these banks not only further reduced their foreign assets but also turned to decrease their international borrowings while facing considerable outflow of domestic private deposits. The introduction of government support prevented the banks' disorderly failures and resulted in credit reshuffling: the banks contracted their lending to the domestic corporate sector by at least 4% of GDP and increased household lending by almost the same magnitude, which mostly offset the total economic loss. Further, we introduce a two-stage treatment diffusion approach that flexibly addresses potential spillovers of the sanctions to private banks with political connections. Using unique hand-collected board membership and bank location data, our approach shows that, throughout this period, politically-connected banks were not all equally recognized as potential sanction targets. Finally, using the syndicated loan data, we establish that the real negative effects of sanctions materialized only when sanctioned firms were borrowing from sanctioned banks. (E65, F34, G21, G41, H81.)

Experience and Firms Financing Behavior: A Behavioral Perspective

Jarko Fidrmuc | Florian Horky

**Zeppelin University Friedrichshafen, Germany | Zeppelin University
Friedrichshafen, Germany**

We analyze the role of experience on firms' external financing decisions on the example of European firms. Using multinomial logit methodology for application decisions for main sources of external finance, we show that firms' lending behavior is driven by their experience in the previous period. Moreover, the optimism and pessimism mood of surveyed firms (animal spirit) is another important determinant. Our results stress the importance of experience for all types of external financing. Finally, our results have possible implications to understand the dynamics of external financing behavior during the Covid-19 Pandemic.

Financial System Structure and Business Cycles dynamics

Alessandra Centinaio | Fausto Pacicco | Massimiliano Serati | Andrea Venegoni

**LIUC - Università Carlo Cattaneo | LIUC - Università Carlo Cattaneo | LIUC -
Università Carlo Cattaneo | LIUC - Università Carlo Cattaneo**

We investigate the impact of countries' financial structure – bank-centred or market-centred credit market – on the business cycle fluctuations and on the shocks' propagation. To do this, we perform a Bayesian-FAVAR focusing on France and Germany, which are characterized by different financial systems. Results suggest that where there is a higher incidence of bank credit (Germany), financial shocks increase the left-side skewness of the business cycle distribution, thus generating a higher left tail risk. When considering shocks on energy prices bank-centred credit markets help in absorbing the shock, while countries with market-centred credit markets display an increase in the left-side skewness. Finally, demand and total factor productivity shocks do not show significant differences among different credit market structures. These findings provide relevant policy indications. First, there is not a most efficient system but both kind of credit market structure present strengths and weaknesses and are vulnerable to shocks that can generate significant economic activity downturns. Second, countries which credit market is mostly set on the banking system have to apply a strong financial market monitoring and have to put in place a set of policies and interventions aimed at preventing and quelling financial market shocks, while economic systems in which market credit plays a more relevant role have to strengthen their industrial system and improve its resilience from supply side shocks coming from increases in production prices and, generally, procurement costs.

Financial Institutions and Renewable Energy Adoption in EU and ASEAN Countries

Florian Horky

Zeppelin University

The path to green energy production and consumption is crucial in tackling the challenges of the ongoing climate change and energy crisis. However, this path is an expensive one and financial availability is a necessary precondition for the green transition. In the present paper, the role of financial institutions and financial markets gets investigated by using a heterogenous sample of 32 EU and ASEAN countries, covering a period from 2000 to 2020. The results show, that banking financial institutions favorize well-known, carbon intensive energy production and therefore exhibit a negative effect on renewable energy consumption. Well-developed financial markets show a positive effect on green energy production and consumption in high-income and EU countries.

Macroeconomic shocks, credit and the German housing market in the 2010s

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Deutsche Bundesbank | Deutsche Bundesbank

We analyse the role of macroeconomic shocks in the sustained increase in house price and loan growth in Germany in the 2010s. We use a Bayesian vector autoregressive model extended by variables from the housing market and identify structural shocks using sign restrictions. We find that monetary policy shocks have been important drivers of house price and loan growth in some episodes, in particular, during the acceleration of house price growth between 2014 and 2017. However, housing demand and housing supply shocks were of a similar importance as monetary policy shocks. Overall, our results do neither support the view that an overly loose monetary policy was behind the increase in house price growth in Germany nor that it was caused by banks loan supply behaviour.

Augmented Coincident Index: Using soft information to track the economy

Milos Ciganovic

Sapienza University of Rome

The transition to a digital economy and the shift from manufacturing to services has significantly impacted how we do business and measure economic activity. These changes have challenged traditional macroeconomic theory and econometric methodologies commonly used for economic research and forecasting. To respond effectively to these challenges, policymakers and forecasters need access to real-time data that reflects the current state of the economy. However, the most important economic statistic, GDP growth, is often provided with a one to three-month lag. One way to overcome these limitations is to create coincident indexes that monitor financial and labour market factors in real-time. These indexes provide a current understanding of the economy and can help decision-makers act promptly. However, it can be challenging to develop a coincident indicator that can accurately capture the direction and drivers of economic activity due to a lack of high-frequency data. To address this issue, we propose using "soft" information from social media and major newspapers in Italy to create a real-time understanding of the economy. Our approach involves collecting articles from the top five newspapers in Italy based on their distribution throughout the country and using Twitter as a data source. We then use state-of-the-art machine learning models known as transformers to analyze the articles and classify them according to different topics. After performing natural language inference to calculate the sentiment of each newspaper, we use a Kalman filter to create a unique, augmented, coincident economic index. Our results show that our approach is more accurate than traditional coincident indices, such as the Bank of Italy's ITA-coin. In addition, our index can anticipate the direction of GDP development and provides a more current understanding of the economy than ITA-coin. We also find that our index tracks the current state of the economy more closely than GDP growth, as it is available at a higher frequency. Our approach offers a promising solution for improving economic modelling and forecasting timeliness and accuracy.

News is Risky Business

Kari Heimonen | Heikki Lehkonen | Vance Martin

University of Jyväskylä, Finland | University of Jyväskylä, Finland | University of
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Abstract Tests are conducted to determine whether news from media attention are priced in asset markets. Environmental, Social and Governance risk factors are all investigated, together with a combined ESG risk factor. The approach is based on a dynamic multivariate intertemporal capital asset pricing model by testing the covariation between portfolio returns and the news having conditioned on market returns. Using daily US data from 2007 to 2020 on portfolio returns the empirical results show that unexpected news is priced, with investors prepared to forgo higher expected returns on stocks that have higher ranked ESG factors. There is also evidence that firms who attach lower risk to ESG factors, assign higher risks to market factors. The empirical results yield economically sensible relative risk aversion parameter estimates with values ranging between 3 and 6.

Financial markets and legal challenges to unconventional monetary policy

Stefan Griller | Florian Huber | Michael Pfarrhofer

**Vienna University of Economics and Business | University of Salzburg |
University of Vienna**

We investigate how legal rulings on the conduct of unconventional monetary policy affect financial markets in the euro area. Several unconventional monetary policy measures of the European Central Bank have come under scrutiny before national courts and the European Court of Justice. These lawsuits have the potential to severely impact the scope and flexibility of central bank policies with important consequences for the real and financial economy. Since the number of relevant legal challenges is small, we develop an econometric approach that searches for minimum variance regimes which we use to isolate and measure the effects of these events. Our results suggest that legal rulings addressing central bank policies have a powerful effect on financial markets. "Expansionary" shocks ease financial conditions along various dimensions, and inflation swap reactions suggest inflationary pressures with stronger effects in the short term.

The international effects of central bank information shocks

Michael Pfarrhofer | Anna Stelzer

University of Vienna | University of Salzburg

We explore the international transmission of monetary policy and central bank information shocks by the Federal Reserve and the European Central Bank. Identification of these shocks is achieved by using a combination of high-frequency market surprises around announcement dates of policy decisions and sign restrictions. We propose a high-dimensional macroeconomic framework for modeling aggregate quantities alongside country-specific variables to study international shock propagation and spillover effects. Our results are in line with the established literature focusing on individual economies, and moreover suggest substantial international spillover effects in both directions for monetary policy and central bank information shocks. In addition, we detect heterogeneity in the transmission of ECB policy actions to individual member states.

Financial shocks and risk sharing in the euro area

Paolo D Imperio | Massimiliano Tancioni

Italian Ministry of Economy and Finance | Sapienza University of Rome

We develop a novel empirical strategy to evaluate if, and to what degree, risk sharing across euro-area countries depends on the specific source of output variability. The analysis is based on panel VARs in which three sources of idiosyncratic GDP variation, namely demand, supply, and financial shocks, are identified with sign and exclusion restrictions. Results show that, on average, only 15% of idiosyncratic GDP variability is absorbed over the period 1995-2019. The analysis uncovers a substantial heterogeneity across the absorption capacity of the different risk-sharing channels for shocks of diverse nature. In particular, financial shocks are amplified through credit markets instead of being absorbed. These findings are confirmed when using a more detailed identification strategy able to disentangle credit-supply and credit-demand shocks.

Monetary policy, solvency and life insurance profitability in a low interest rate environment

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This paper examines the impact of standard and non-standard profitability of French life insurance companies in the low interest rate environment. Using novel data encompassing 37 individual life insurers operating in France over the 2009-2018 period, our empirical analysis suggests that the low rate environment has had a significant negative effect on the profitability of French life insurers. The findings show that the effect is amplified when taking into account the unconventional monetary policy of the United States, confirming the international transmission channel of Monetary Policy. This result holds after controlling for macroeconomic and financial conditions and different life insurers-specific characteristics. Accounting for the heterogeneity of life insurers, the paper sheds light on the asymmetrical impact for smaller companies using a decile regression with interactions. The second novel findings relate to the influence of the solvency position of life insurers in the context of the introduction of the Solvency II regulation in the European Union, highlighting the asymmetric relationship with profitability. Finally, the article issues policy recommendations for regulators to mitigate financial instability, particularly for smaller insurers.

Agreed and Disagreed Uncertainty

John Tsoukalas

Adam Smith Business School

This paper provides a new interpretation of uncertainty shocks through the lens of dispersed consumer views about the state of the economy. We develop a new measure of consumer disagreement that captures the dispersion of views within a noisy information environment. In a model of incomplete and dispersed information, we distinguish between uncertainty shocks in periods of low disagreement (agreed uncertainty) and high disagreement (disagreed uncertainty). We use the restrictions from our theoretical framework in a Bayesian vector autoregression to identify agreed and disagreed uncertainty shocks in U.S. macroeconomic data. Our results show that disagreed uncertainty has no discernible economic effects and is benign for economic activity. In contrast, agreed uncertainty exerts significant depressing effects on a broad spectrum of macroeconomic indicators.

FDI and Role of European Integration Uncertainty

Daniel Pastorek

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This paper exposes and further explores decisions on foreign direct investments (FDI) within European Union in a time when uncertainty about outcomes of greater market integration rise. Our results suggest that European integration uncertainty does matter for investment decision on FDI within European Union. Importantly, our results show that these decisions are not homogenous among its members. While this uncertainty is negatively affecting the countries primary in euro area (EA), it has a positive effect on countries outside EA. The results are estimated on sample of 22 European member countries over the years 2013 – 2020.

30 Years of Taylor Rule: What Have We Learnt?

Dimitrios Bakas

Nottingham Trent University

Taylor rule constitutes a core part in many macroeconomic models due to its analytical simplicity. Even though it was proposed as a framework for the US economy, the empirical applications covered a huge number of countries. Yet the usefulness and effectiveness of the Taylor rule as a global tool are not clear. We collect reported estimates of both inflation and output gap from more 125 studies in order to investigate the existence of publication bias by applying newly proposed testing methods. Also, we investigate the factors behind the observed variation across the literature. To take into account model uncertainty we employ several averaging schemes. Our results indicate the existence of publication bias. However, the evidence regarding the existence of a genuine effect is mixed. Finally, the heterogeneity is not so pronounced as in other fields of economics.

Reevaluating recent macroeconomic policy in the US

Tatiana Kirsanova | Campbell Leith | Celsa Machado | Ana Paula Ribeiro

University of Glasgow | University of Glasgow | Polytechnic of Porto | University
of Porto

Using the optimising policy framework, we build and estimate a small-scale DSGE model of the US, and present a narrative of monetary and fiscal policy interactions in 1955-2021. We use this model to analyse the two episodes of zero lower bound on interest rate. We find that suitably built fiscal packages could have generated a lift-off from the ZLB2008. We find that the ZLB2020 was unnecessarily prolonged, but this does not explain the recent hike in inflation.

Revisiting Capital flow drivers: Evidence from direct (Pull & Push) & Indirect (contagion) factors

Zied Ftiti | Wael Louhichi | Hachmi Ben Ameer | Haithem Awijen

EDC Paris Business School | ESSCA School of Management | INSEEC Business School | INSEEC Business School

This paper aims to investigate the determinant of capital flows movement during period of turmoil. More interestingly, our study revisit the capital flow movement drivers through considering push, pull factor and contagion factors. Based on data related to 77 countries ranged from 1995 to 2020, our results reveal three interesting findings. First, only global liquidity and U.S Monetary policy turn out to be the most significant push factors of capital flow surges. The indirect channel driven through contagion effect across peer markets- measured through Geographic Peers, country's equity market peer, or country's bond market peers- is associated with extreme stops of capital flow. Our findings offers new perspective in understanding cross-country Capital flow waves during crisis.

Confirmation of T+35 Failures-To-Deliver Cycles: Evidence from GameStop Corp.

Daniel Pastorek | Peter Albrecht | Michal Drabek

**Mendel University in Brno | Mendel University in Brno | Mendel University in
Brno**

In this paper, we examine the potential of cycles in the valuation of GameStop Corp. (GME) stocks, due to the unique exemptions in exchange traded fund (ETF) creation/redemption activities. In order to satisfy liquidity in the market, a market maker and/or authorised participant is allowed to sell ETF shares that have not yet been created. With the use of wavelet coherence, we find evidence that ETF Failures to Deliver (FTDs) formed consistent cycles in the day T+35 FTD clearing period. Results also confirm less consistent but repeating cycles between the T+3 and T+6 periods. To the best of our knowledge, we are the first in the literature to empirically examine the potential of these cycles and their co-movement between FTD and stock prices.

The Confidence Interval of the Cross-Sectional Distribution of Durations

Huw Dixon | Moashan Tian

Cardiff Business School | School of Economics and Management, Chongqing University

Abstract Tian and Dixon (2022) derived the variance of the estimator of Cross-Sectional Distribution of Durations (CSD). In this paper, we apply Fieller's method and Delta method to derive confidence interval of CSD using this variance formula. (CSD) is a new estimators derived by Dixon (2012). It can be applied in general Taylor model (GT E) by Dixon and Bihan (2012) and hospital waiting times by Dixon and Siciliani (2009). We use Monte Carlo simulations to evaluate the empirical size of Fieller's method and delta method among different sample sizes. The empirical results show that both Fieller's method and the delta method are valid in terms of estimating the confidence interval of CSD. Finally, we use both methods for real data set: the UK CPI micro-price data. Depending on the application, we see that both methods provide reasonable CIs for CSD estimators.

Financial literacy and the determinants of mortgage selection

Juha Juntila | Veikka Keinänen | Heikki Lehkonen

University of Jyväskylä | OP Financial Group | University of Jyväskylä

Study analyses the effects of financial literacy on the selection between mortgage lenders and loan offers using a specific questionnaire from Finnish mortgage borrowers. The results indicate that financially more literate borrowers are better able to evaluate the monetary attributes of the loan offer and make their mortgage lender choice more based on the true cost of the loan. Instead, financially less literate borrowers give more weight to the loan offer attributes and financial services not related to the loan, possibly valuing the convenience of concentrating financial services on one institution. The obtained results suggest that banks can help financially less literate borrowers make better mortgage choices by using more clear communication in the activities related to the bank loan processes.

The yield curve, recessions, and financial crises

Moritz Schularick

Sciences Po and University of Bonn

It is a well-established fact that the yield curve helps predict recessions. Yet not all recessions are alike. Some are connected to systemic financial crises, others are more standard business cycle downturns. Using long-run data for 18 advanced economies, we show that the yield curve predicts only the former type, i.e., recessions linked to systemic financial crises. After disentangling the different types of recessions, we show that the yield curve has predictive power over several years in advance. Before financial crises, the short-term rate rises while the long-term rate stays put. Before normal recessions, both ends of the yield curve fall.

Determinants of the Duration of Economic Recoveries: The Role of 'Too Much Finance'

Boris Fisera | Vitor Castro

Charles University & Slovak Academy of Sciences | Loughborough University

This paper explores the effect of financial development on the duration of economic recoveries, considering a sample of 414 economic recoveries observed in 67 countries during the period 1989-2019. We define the duration of economic recovery, as the time it takes the economy to return to its potential output level after a recession. Using a continuous-time Weibull duration model, we find that a higher level of financial development tends to prolong the duration of economic recovery. Therefore, our findings indicate that a too highly developed financial system might delay a full recovery after a recession, supporting the notion that there is 'too much finance'. In particular, greater size of the underregulated sector of non-banking financial institutions (shadow banks) prolongs the economic recovery. Moreover, the emerging economies, with their generally poorer regulatory frameworks, are more negatively affected by 'too much finance'. Underlining the importance of an effective regulation of the entire financial system, our results also confirm that a higher regulatory quality limits the negative consequences of 'too much finance'.

The Melitz model with production networks and contagion via the supply chain

Philip Schnattinger

Bank of England

Trade has been found to be an important cause of contagion of economic crisis. However, intra-industry heterogeneous firm trade models have trouble capturing this channel of transmission of often persistent regional crisis, as they would predict that crisis in one country would lead to firms in the country of the trading partner to thrive. This paper extends the Melitz model with a simple model of production networks. While keeping the tractability of the Melitz model, the model shifts the focus from productivity to the related concept of unit production costs. By showing that higher input costs will drive equilibrium firm profits down, the model can explain regional contagion via trade in line with empirical evidence as the result of the economic crisis negatively affecting the supply chain. This leads to an increase the cost of production and reduces the productivity cutoff, firm profits, and welfare in the process.

Can tourism help reduce income inequalities and support economic convergence? Evidence from the Kyoto prefecture.

Niccolo' Comerio

LIUC - Università Cattaneo

As one of the fastest growing sectors worldwide, tourism can be considered a vital contributor to economic development, and benefits of rapid tourism expansion are widely welcomed by governments of many destinations. Therefore, by focusing on the Japanese prefecture of Kyoto, this paper aims to investigate the role of tourism in pursuing economic growth and a reduction of income inequalities, which can be considered an overlooked topic area. Main findings revealed that, in a world characterized by a growing level of inequality, tourism can be used as an economic growth factor as well as a convergence factor. Therefore, tourism policies may represent an effective strategy for redistributing wealth and reducing income inequalities, not only between countries, but also at regional and municipal level.

Reassessing the Effect of CSR Activities on the Firm Performance

Martin Černek | Svatopluk Kapounek | Alexandra Matulova

The PRIGO University | Mendel University in Brno | Mendel University in Brno

The paper investigates the effects of CSR activities on the firm performance. We employ unique RepRisk index to distinguish between real and declared CSR activities of 969 companies from the EU and the United Kingdom in the period from 2009 to 2020. We found that institutional environment reduces the effect CSR activities on firm performance. In addition, we identify heterogeneous effects of CSR activities in Western and Eastern European countries. We argue that positive effects of CSR activities on firm performance are complementary to a low corruption environment.

The Price of War: Macroeconomic and Cross-Sectional Effects of Sanctions on Russia

Anna Pestova | Mikhail Mamonov

CERGE-EI | CERGE-EI

How much do sanctions harm the sanctioned economy? We appeal to the case of Russia which faced three major waves of international restrictions over the last decade (in 2014, 2017, and 2022). In a VAR model of the Russian economy, we first apply sign restrictions to isolate the innovations to international credit supply to proxy for the financial sanctions shock. We then examine the effects of the overall sanctions shock (financial, trade, technological, etc.) by employing a high-frequency identification (HFI) approach. Our HFI is based on each OFAC's / EU sanction announcement and the associated daily changes in the yield-to-maturity of Russia's USDollar-denominated sovereign bonds. First, our macroeconomic estimates indicate that Russia's GDP could have lost up to 0.8% due to the financial sanctions shock and up to 3.2% due to the overall sanctions shock cumulatively over 2014–2015. In 2017, respective effects are 0 and 0.5%, and in 2022—8 and 12%. Second, our average cross-sectional estimates show that sanctions lead to a decline in the real income of richer households by 1.5 (2.0) %, if residing in regions' capital cities (everywhere else), in a year after the sanctions hit. Strikingly, for poorer households the effects of sanctions are positive: their real income over the same period rises by 1.2 (1.1) %, if living in regions' capital cities (rural areas). Third, we obtain that the real total revenue of large firms with high (low) TFPs declines by 2.2 (4.0) % during the first (second) year after the sanctions, whereas the effects on small firms are negligible.

Consumer Credit and Macroprudential Policy in a Commodity Exporting Small Open Economy

Udara Peiris | Aleksandr Shirobokov | Dimitrios Tsomocos

**Oberlin College | HSE University | Said Business School and St Edmund Hall,
University of Oxford**

We study the role of commodity price shocks in generating domestic consumer and corporate credit cycles in a commodity-exporting economy. We show that while commodity price shocks drive corporate credit, consumer credit is driven by domestically sourced shocks. To study this, we estimate a small open economy New Keynesian DSGE model of a commodity exporter with a banking system, heterogeneous households, and firms using Russian data. Saver households deposit funds at the banks that lend to borrower households and firms. The latter two can borrow secured and unsecured debt from the banks. Unsecured debt is defaulted upon by borrowers who face a cost when they do so. We show that macroprudential policy tools that minimize fluctuations in consumer credit do so at the expense of corporate loans — reducing both results in a cost to real variables or inflation. The optimal policy requires a combination of policy rules targeted to asset classes of interest and rules targeting generalized systemic risk.

Volatility Connectedness on European Emerging Forex Markets

Evzen Kocenda

Charles University

In this paper, we identify volatility connectedness between the currencies of the Czech Republic, Hungary, and Poland (Central European currencies) following the period described by Bubák et al. (2011). The authors only observed the connectedness associated with the euro, but we also identify the connectedness associated with the US dollar. This analysis is performed using the procedure developed by Diebold and Yilmaz (2009 and 2012). We find that connectedness with the inclusion of the euro is multiples higher in the long run. However, connectedness with the US dollar exhibits bigger peaks. Further, we are the first to identify asymmetric volatility propagation for this set of currencies, as it has been identified only for global currencies so far (Barunik et al., 2017). We find that connectedness from bad volatility dominates over connectedness from good volatility, especially during periods of economic turbulence. Then we follow the method developed by Greenwood-Nimmo et al. (2022) to be the first to calculate for forex the probability of how much and within how many days connectedness increases in the context of an economic-political shock. In this research, we use high-frequency data for the period of 2010-2022. We provide empirical evidence that the connectedness of Central European currencies and the US dollar increased in eight out of ten events within one business month after the shock occurred.

Accounting comparability between M&A bidders and targets and deal outcome

Seraina Anagnostopoulou | Andrianos Tsekrekos

University of Piraeus | Athens University of Economics and Business

This study examines whether acquirers make better intra-industry acquisitions when target firms' financial statements exhibit greater comparability with those of the acquirer. We extend past research by examining accounting comparability of the M&A target to the deal acquirer, rather than comparability between the M&A target and its industry peers, which should facilitate target valuation. We hypothesize that higher comparability between M&A bidders and targets should provide lower uncertainty about the way in which the underlying economics of the two counterparts are reflected on their financial results, and should result in less risky deals, priced accordingly by market participants. We find that higher accounting comparability between acquirers and targets in intra-industry deals makes these deals perceived as less risky by investors, leading to lower acquirer abnormal returns around the deal announcement date. We also find that higher financial reporting comparability between the acquirer and the target (a) positively associates with long-run market deal performance, and (b) makes post-acquisition divestitures less likely. Both findings indicate that higher target-to-acquirer comparability leads to more successful M&As. Our findings are less pronounced for deal acquirers that are operationally more complex and less creditworthy, and more pronounced for acquirers with fewer anti-takeover protection provisions in place.

Takeover competition and stock performance of targets and acquirers in the European Union

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University of Erfurt | University of Erfurt

We examine the impact of M&A announcements on stock prices of targets and acquirers in the European Union from 2002-2021. In line with the literature, we find strong positive returns for the target firms' stocks, whereas returns are low or insignificant for the acquirers. We contribute to the literature by focusing on the effect of takeover competition and distinguishing between the returns of first and later bids. Accordingly, we confirm strong relationships between subsequent offers and target firms' stock returns. These returns increase if a second offer is made and if the premium related to the second offer is higher.

Liquidity Benchmarks and Proxies: Predicting day-ahead price variation on the U.S. equity market

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Masaryk University, Department of Finance | Masaryk University, Department of Finance

We study the role of liquidity benchmarks and proxies in predicting day-ahead price variation on the sample of 189 U.S. equities that were constituents of the S&P 500 during the period from 1st January 2010 to 9th March 2021. Using four benchmark models and 25 liquidity measures we find strong evidence that quoted spread is most useful in predicting day-ahead price variation. These results are consistent under multiple benchmark models, the QLIKE, MSE and MAE loss functions and for most stocks. We find that Quotes Spread is most useful during tranquil or extreme price variation periods. With respect to other risk measures, our results imply that if detailed trade data is not available, the popular measure of Amihud is still useful across most stocks in our sample. Our results are useful for market participants and researchers as they provide a set of preferences between liquidity measures with respect to their utility for predicting price variation. Moreover, our result suggest that as quoted spread is useful in predicting next day's price variation, market makers are effective in anticipating market uncertainty.

Financial Frictions, R&D & Monetary Policy

Giulio Tarquini

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What are the long-run aggregate effects of monetary shocks displaying through the credit channel of monetary policy? We address this question by investigating the transmission mechanism and estimating the dynamic behaviour of variables related to credit and innovation. Then, we develop a DSGE model featuring endogenous growth, in which credit frictions constrain the acquisition of tangible inputs and innovation, represented through the R&D process. Under this paradigm, recessionary shocks develop into persistent stagnation. We show the ability of our theoretical framework to reconcile with empirical evidence, quantifying the contribution of this channel to productivity and output hysteresis observed after the Global Financial Crisis.

Monetary policy uncertainty and spillovers of U.S. monetary shocks to global bond yields

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Indian Institute of Management Calcutta | TAPMI Bangalore

This paper investigates whether monetary uncertainty in the U.S. moderates the impact of the Fed's monetary shocks on sovereign bond yields and their components in other economies. I find that the impact of the Fed's monetary shocks on the risk-neutral component decreases during periods of high monetary uncertainty. At the same time, increased monetary uncertainty amplifies the term premium impact of the Fed's monetary shock. In addition, while the moderating effect is more pronounced on short-term risk-neutral rates, it is higher on long-term term premiums. I also find evidence that the moderating impact on the risk-neutral yield component is much higher in economies with higher exchange rate flexibility. In contrast, the moderating effect on the term premium component appears to be some function of underlying domestic uncertainty.

The Differing Effects of Brexit on the Irish Economy

Michael O'Grady | Silvia Calò

Central Bank of Ireland | European Stability Mechanism

When the UK left the EU, new trade barriers appeared between the UK and EU member countries. However, Ireland maintained strong linkages with the UK economy, driven by the combination of a shared land border, a common language and culture, and similar legal systems. Using a data-driven, transparent and unbiased method we calculate the effects of the June 2016 Brexit vote on trade patterns between Ireland and the UK, relative to other euro area economies. We let a matching algorithm determine a combination of comparison economies that best resembles the path of bilateral trade with the UK before the Brexit referendum. The difference between imports and exports for Ireland and its synthetic doppelgänger represent the potential impacts of the Brexit vote on trade, had there not been these unique linkages between the Irish and UK economies. We show that, contrary to the prevailing narrative, Irish imports and exports did not respond to the uncertainty of the Brexit withdrawal agreement to the same extent as other euro area member states. We estimate that the stronger linkages have resulted in exports that are €9.5 billion above counterfactual levels, and imports that are €8.4 billion above counterfactual levels, on a cumulative basis between 2016q3 and 2019q4.

Links between housing and real economy in the euro area

Borek Vasicek | Vaclav Zdarek

European Commission, DG ECFIN | European Commission, DG ECFIN

Housing represents a large share of household wealth and housing market developments are of high importance for the overall economy. Since 2014, house prices have increased across the euro area and accelerated further since the COVID-19 pandemic. This article analyses the links between GDP, residential construction, lending rates, mortgage credit and house prices in the euro area, and tests the impact of macroprudential and monetary policy on housing markets. The empirical results confirm that there are strong links between the housing market and the real economy at euro area level. The differences in these links across Member States can, at least in part, be related to different degrees of elasticity of the housing supply. The results also found that both macroprudential and monetary tools have a significant impact on house prices and on mortgage credit in the euro area.

DO ENVIRONMENTAL, SOCIAL AND GOVERNANCE LABELLED FUNDS CREATE A DIFFERENT INVESTMENT ALTERNATIVE OR ARE THEY MORE OF THE SAME?

Otavio Augusto Fernandes Lopes

Johns Hopkins University

Throughout the 20th century it became clear that anthropogenic activity is the main factor in the rapid climate shift resulting from temperature increases. In capital markets this challenge has been dealt with, more recently, through the Environmental Social and Governance (“ESG”) scoring of assets and funds. This paper is an update of previous research done comparing ESG denominated funds and non ESG denominated funds to define if they are statistically different between them and when compared to the SP500. The analysis concludes that ESG labelled exchange traded funds (“ETFs”) are not able to statistically differentiate themselves from non-ESG ETFs nor the SP500 in terms of industry allocation. When analyzing E, S, G and ESG scores we found mixed results. Group average E, S, G and ESG scores were not statistically different under the Wilcoxon Signed-Rank test. However, there was no significant evidence that ESG ETFs and non-ESG ETFs have the same median S, G and ESG scores when using non-averaged data under the Wilcoxon Rank-Sum test, which means that they differentiate enough to be considerate different.

Housing booms fueled by credit

Carlos Cañizares Martínez

National Bank of Slovakia

The aim of this paper is to empirically identify the state of the housing market such that it might be classified as housing booms fueled by credit, normal times or busts. I do so by estimating a three states Markov-switching model of housing prices in which mortgage debt is the state-dependent variable after controlling for standard housing fundamentals. Motivated by the financial stability risks of leveraged housing booms, I also propose a simple policy rule to set the sectoral counter-cyclical capital buffer (SCCyB) by exploiting the Markov-switching model results. The significance of this study is that it informs policymakers about the risk of housing booms fueled by credit and provides a simple rule that allows the implementation of state-dependent macroprudential policy. Further, the structure of such rule is general enough to be applied to other policy tools.

Price Level Targeting with Imperfect Rationality: A Heuristic Approach

Vojtěch Molnár

Charles University and Czech National Bank

Abstract:The paper compares price level targeting and inflation targeting regimes in a New Keynesian model with bounded rationality. Economic agents form their expectations using heuristics—they choose between a few simple rules based on their past forecasting performance. In the paper, two main specifications of the price level targeting model are examined—the agents form expectations either about the price level or about inflation, which is ex ante not equivalent because of the sequential nature of the model. In addition, several formulations of the forecasting rules are considered. Both regimes are assessed by performing a loss function comparison. According to the results, price level targeting is slightly preferable in case where expectations are created about the price level under the baseline calibration. It is, however, sensitive to some model parameters and there is a risk of instability. Furthermore, when expectations are created about inflation, price level targeting loses credibility over time and leads to divergence of the economy. On the other hand, inflation targeting model functions in a stable manner. Therefore, while the potential benefits of price level targeting have been confirmed under certain assumptions, the results suggest that inflation targeting constitutes a more robust choice for monetary policy.**Note:** The paper has already been published in Working Paper series of Czech National Bank, but it has not been accepted for publication in a journal.

Forecasting euro area inflation using a huge panel of survey expectations

Luca Onorante | Florian Huber | Michael Pfarrhofer

European Commission | University of Salzburg | University of Salzburg

In this paper, we forecast euro area inflation and its main components using an econometric model which exploits a massive number of time series on survey expectations for the European Commission's Business and Consumer Survey. To make estimation of such a huge model tractable, we use recent advances in computational statistics to carry out posterior simulation and inference. Our findings suggest that the inclusion of a wide range of firms and consumers' opinions about future economic developments offers useful information to forecast prices and assess tail risks to inflation. These predictive improvements do not only arise from surveys related to expected inflation but also from other questions related to the general economic environment. Finally, we find that firms' expectations about the future seem to have more predictive content than consumer expectations.

Breaking Bad: Parameter Uncertainty Caused by Structural Breaks in Stocks

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University of Liechtenstein | University of Liechtenstein

Estimating parameter inputs for portfolio optimization has been shown to be notoriously difficult and gets further complicated by structural breaks and regime shifts in financial data. We argue that these structural breaks ultimately result in parameter uncertainty, to which investors are averse. On an aggregate market level, this ambiguity-aversion gives rise to a premium for parameter uncertainty as stocks with high (low) parameter uncertainty are avoided/sold (more attractive/bought). We propose a novel measure called break-(adjusted stock-)age that proxies for parameter uncertainty and is based on detecting structural breaks in stock returns using unsupervised machine learning techniques. Our measure reveals (i) that break-age is priced significantly in the cross-section of stock returns and (ii) that break-age is a powerful proxy for parameter uncertainty.

Current account balances' divergence in the euro area: an appraisal of the underlying forces

Emmanuelle Faure | Carl Grekou | Valérie Mignon

**EconomiX-CNRS, University of Paris Nanterre | CEPII, Paris, and EconomiX-CNRS
| EconomiX-CNRS, University of Paris Nanterre, and CEPII, Paris**

Abstract: This paper revisits the crucial issue of current account imbalances and focuses on the determinants of their gaps between eurozone Member States. We conduct robust estimations of the current account balances for a panel of ten founding euro area economies and construct a measure that allows us to diagnose why some countries have started to diverge from the eurozone mean in the last two decades. Our findings show evidence of remaining differences in countries' economic development, meaning that real macroeconomic convergence has failed in the zone. Price and cost competitiveness, as well as fiscal balances, have also participated in this growing macroeconomic divergence. Overall, while the European authorities cannot influence the part of the current account gaps due to demographic factors, the role of fiscal redistribution and investment at the euro area level could help achieve macroeconomic convergence and thus reduce current accounts' divergence in the zone.

Forecasting Real Economic Activity using the Financial Stress Index: Evidence from Developed and Developing Countries

Andreas Tsopanakis | Man Luo | Shenglin Ben

Cardiff University | Zhejiang University | Zhejiang University

Aim of this paper is the study of the financial stress – macroeconomic fundamentals interrelations and the usefulness of financial stress as a leading indicator of macro-fundamentals. We construct a set of financial stress indices for 25 countries, both developed and developing. After assessing these indices ability to capture periods of macrofinancial instability, a forecasting exercise is conducted, where major macroeconomic variables are forecasted using the aforementioned early warning indicators. The out-of-sample forecasting evidence verifies the ability of these financial stress indices to act as valuable modern tools for assessing the vulnerability of a range of economies. We suggest that such aggregate financial risk capturing tools can be of great interest for policy makers, as well as individual investors.

Natural Disasters and Creative Destruction: Evidence from Indonesian Firms

Marina Dodlova | Anna Kochanova | Krisztina Kis-Katos

University of Passau | Cardiff University | University of Göttingen

This paper assesses the impact of natural disasters on firm performance in Indonesia. It contrasts the effects of different types of disasters (floods and earthquakes at the time being) and investigates through which channels are firms affected by natural disasters and how they recover in their aftermath. In particular, we search for evidence for a “creative destruction” process after natural disasters that would lead to an updating of the capital stock and subsequent productivity improvements. Using yearly balance sheet information, we assess changes in outputs and input use in the aftermath of disasters, as well as their effects on firm productivity and the general competition environment. We also investigate heterogeneous responses to shocks by distinguishing between firms that are in partial foreign or state ownership.

Climate Change Mitigation: How Effective is Green Quantitative Easing?

Raphael Abiry | Marien Ferdinandusse | Alexander Ludwig | Carolin Nerlich

Goethe University Frankfurt | European Central Bank | Goethe University Frankfurt | European Central Bank

We develop a two-sector incomplete markets integrated assessment model to analyze the effectiveness of green quantitative easing (QE) in complementing fiscal policies for climate change mitigation. We model green QE through an outstanding stock of private assets held by a monetary authority and its portfolio allocation between a clean and a dirty sector of production. Green QE leads to a partial crowding out of private capital in the green sector and to a modest reduction of the global temperature by 0.04 degrees of Celsius until 2100. A moderate global carbon tax of 50 USD per tonne of carbon is 4 times more effective.

Currency crisis, financial integration, and monetary policy in a small economy

Laurent Augier

CRIEF Université de Poitiers

This note presents an analysis of monetary interest rate policy in the face of a currency crisis caused by an exogenous exchange rate shock. Corporate indebtedness in foreign currencies is the factor behind the crisis. We examine the role of interest rate policy according to the real or monetary dimension of the shock, considering the degree of financial integration of the economy. In the real sector, we study the effect of a productivity shock and on the financial side we analyse the impact of changes in the international interest rate or the consequences of institutional change in the financial system. It appears that the increase in the interest rate, often recommended, is not always efficient. Also, the process of financial integration of economies can facilitate interest rate policy.

Where to put 9 trillion euros? Insurance corporations, financial stability and monetary policy

Christoph Kaufmann | Jaime Leyva Marin | Manuela Storz

European Central Bank | Banco de Portugal | European Central Bank

The euro area insurance sector and its relevance for real economy financing have grown significantly over the last two decades. This paper analyses the effects of monetary policy on the size and composition of insurers' balance sheets, as well as the implications of these effects for financial stability. To this end, we estimate local projections using causally identified high-frequency monetary policy shocks on balance sheet data at the country-sector level as well as on granular security-level holdings data between 2010 and 2019. We find that changes in monetary policy have a significant impact on both sector size and risk-taking. Insurers' balance sheets grow materially after a monetary loosening, implying an increase of the sector's financial intermediation capacity and an active transmission of monetary policy through the insurance sector. We also find evidence of portfolio rebalancing consistent with a risk-taking channel of monetary policy. After a monetary loosening, insurers increase credit, liquidity and duration risk-taking in their asset portfolios. Our results suggest that extended periods of low interest rates lead to rising financial stability risks among non-bank financial intermediaries.

Monetary Policy Normalisation, Secular Stagnation & Settlement of TARGET2 Imbalances in the EMU

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Since the Global Financial Crisis, there have been two parallel issues faced by the Eurozone, Stagnation and TARGET2 imbalances. This study analyses the aspect of settling TARGET2 in an equitable and fair manner that could also resolve the issues of sluggish growth, deflation and high unemployment in the Europe. It is proposed that the TARGET2 balances are settled by an adjustment to the monetary base in the EMU. Specifically, it implies that the Eurozone members are granted a right to settle their imbalances against Euro-system in proportion to their capital key weights. The proposed approach will have four order/tier implications which include, a) adjustment of monetary base at the EMU level, b) creation of additional liquidity in the Euros -system member states, c) creation of much needed fiscal space and d) cross-border spillovers among the EMU remembers. While keeping the bleak economic outlook of Eurozone in context, we analysed the implication of proposed mechanism at first tier using a Factor Augmented VAR model on data from 2000Q1 to 2017Q1. Our key results suggest that such an approach would lead to a considerable increase in the real output growth, investment, consumption, gross fixed capital formation, stock markets as well as exports and imports of Germany, Greece, Ireland, Italy, Portugal and Spain. The magnitude of the proposed mechanism is comparable to the stimulative stance taken by authorities since the GFC and qualitative easing of “whatever it takes”. Comparatively, there are substantial gains for the TARGET2 surplus countries like Germany than the deficit countries as the former can address its public expenditure needs as well as settle large external surplus without breaching balanced budget act (Schuldenbremse). Given that, the adjustment will be based on the capital key weights and existing arrangements, the proposed approach is equitable, fair, and can be used as n unconventional tool by the ECB.

Forecasting Exchange Rates: An Iterated Combination Constrained Predictor Approach

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Forecasting exchange rate returns is of great interest to both academics and practitioners. In this study we forecast daily exchange rate returns of six widely traded currencies using combination and dimensionality reduction methods. We propose a hybrid Iterated Combination with Constrained Predictor approach. In addition, we examine the impact of positivity constraints on the forecasting ability of each method. Our results indicate that the proposed hybrid method outperforms the simple linear bivariate method and both the Iterated Combination and the Predictor Constrained approaches. Positivity constraints significantly improve the forecasting ability of all methods.

Testing for the Validity of W in GVAR models

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In a globalized world, modeling macro-financial interconnections is fundamental for meaningful inferences. Global Vector Autoregressive models (GVARs) offer an easy and intuitive framework to deal with foreign information when modeling local markets/economies. Local VARs are augmented by the weighted average of foreign counterparts, employing pre-specified distance matrices (W) justified by economic theory, but not empirically tested. We therefore propose a Likelihood Ratio Test for the validity of the proposed distance proxy. In the empirical application regarding euro area sovereign bond yields, we show that existing literature neglected a fundamental feature, the sign of the interconnection. Interestingly, the non-rejected matrix outlines the presence of contagion and flight-to-quality mechanisms in the euro area sovereign bond market well before the euro area debt crisis.

Within Gain, Structural Pain: Capital Account Liberalization and Economic Growth

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This paper studies the effects of capital account liberalization on structural transformation and compares the contribution of within-term and structural-term to economic growth. We use a 10-sector-level productivity dataset to decompose the effects of opening capital account on within-sector productivity growth and cross-sector structural transformation. We find that opening capital account is associated with labor productivity and employment share increment in sectors with higher human capital intensity and external financial dependence, as well as in non-tradable sectors. But it results in a growth-reducing structural transformation by directing labor into sectors with lower productivity. Moreover, in the ten years after capital account liberalization, the contribution share of structural transformation decreases while that of within productivity growth increases. We conclude that the relationship between capital account liberalization and economic growth is within gain and structural pain.

Financial Stress Effects During Times of Fed's Unconventional Monetary Policy Interventions

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In this study, we examine the impact of international financial stress shocks on interest rates, inflation, and growth accounting for several advanced and emerging economies for a period spanning from February 2008 until June 2022. We construct a financial stress index as an indication of financial instability applicable for all countries and shadow short rates as a proxy measure of unconventional monetary policy. The results from our global vector autoregressive model using a stochastic search variable selection prior to control for heteroskedasticity, and the examination of the IRFs and forecast error variance decomposition indicate some important findings. Financial stress is found to be negatively affected in response to a positive interest rate shock, while a global financial stress shock results in asymmetric responses. The findings of this study are useful to policy makers, highlighting the importance of financial stability as a monetary policy goal. As a robustness analysis, we use sign restrictions for orthogonal responses.

Measuring and Comparing Consumption Inequality Between France and the United States

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Banque de France

This paper constructs an annual dataset of consumption by income quintiles for France since 1989 in order to make a granular comparison of consumption inequality with the United States. First, we match consumption data from a survey run every five years with the national accounts, and then use a Kalman filter to interpolate missing observations, leveraging the yearly national accounts data to improve the performance of the Kalman filter. We validate this technique by applying it to a US dataset with pseudo-missing data comparable with our French data. Second, we construct a US consumption dataset compatible with the the French classification of consumption items and compare consumption inequality trends between the US and France. We find consumption inequality to be overall lower than income inequality, and not to follow the dynamics of income inequality. Consumption inequality is also higher in the US than in France. Finally, based on the weights of the different consumption items, we construct annual consumption deflators by quintiles. We find that dispersion in price pressures across income groups is less marked in France than in the United States, and overall quite small in both countries.

The Transmission of U.S. Monetary Policy to Small Open Economies

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Abstract This paper studies the transmission of U.S. monetary policy tightening shocks to a set of advanced and emerging-market small open economies. It applies Forni *et al.* (2009) Structural Factor-augmented Vector autoregression model to a database comprising the period 2001Q4-2022Q2. The paper contributes to the literature on the international transmission of U.S. monetary policy by distinguishing between monetary policy shocks using as instruments Wu and Xia *shadow rate*, the Fed Funds rate and changes in the Fed balance sheet, as well as by studying various international transmission channels. The main findings, with significant policy implications, are the following: (1) the relative importance of the different international monetary policy transmission channels is contingent on whether the monetary policy tightening results from a conventional or an unconventional monetary policy shock. (2) While after the global financial crisis the domestic effects of a U.S. monetary policy tightening have only changed regarding its effects on the balance of payments behavior, its international transmission via the financial channel has become more important. (3) A U.S. monetary policy tightening always reduces foreign economic activity and long-term interest rates. (4) It contributes to the emergence of a “global” financial cycle that depresses economic activity. (5) Besides the degree of countries’ trade openness, differences in the shock transmission across countries do not seem to depend on the different degrees of exchange rate floating or financial openness. (6) There is evidence of an oil price transmission channel that is independent of the type of U.S. monetary policy shock. (7) Monetary policymakers in small open economies react to the macroeconomic effects of U.S. monetary policy shocks.

AN ESG PERFORMANCE INDEX FOR SMALL AND MEDIUM ENTERPRISES

Dimitrios Kolokas | David Veredas | Zacharias Brachoudakis

Vlerick Business School | Vlerick Business School | Bank of Greece

“How well does an SME manage its financially material and industry-adjusted ESG issues compared to its competitors?” We answer this question with a new and innovative ESG performance index for SMEs. If economies want to do the sustainability transformation, addressing SMEs is a sine qua non-condition. Nevertheless, the lack of ESG data has limited sustainability research for SMEs, as well as an understanding of the nexus between their ESG and financial performances. Building upon the state-of-the-art and widely accepted methodologies for disclosure indexes, we add three additional steps, yielding a flexible and straightforward index. The index is particularly suitable for cross-industry studies and financial institutions that need to know the impact of ESG performance on the financials of an SME.

(In)dependent Central Banks

Vasso Ioannidou | Sotirios Kokas | Thomas Lambert | Alexander Michaelides

**Bayes Business School and CEPR | University of Essex | Erasmus University
Rotterdam | Imperial College London and CEPR**

Since the 1980s many countries have reformed the institutional framework governing their central banks to increase operational independence. Collecting systematic biographical information, international press coverage, and independent expert opinions, we find that over the same period appointments of central bank governors have become more politically motivated, especially after significant legislative reforms aiming to insulate central banks and their governors from political interference. We also show that politically-motivated appointments reflect lower de facto independence, and are associated with worse inflation and financial stability outcomes. Given the increase in central banks' powers worldwide, our findings inform the debate about their political accountability and credibility.

Money Never Sleeps: Capital Flows under Global Risk and Uncertainty

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University of Huddersfield

Globalization has accelerated the development of the world economy over the past several decades. The pursuit of financial openness and enhancement of international economic integration constitutes a more open and tightly connected global financial environment, motivating capital flows channeled by financial institutions and vehicles (e.g., banks and investment funds). However, more active cross-border capital flows are presumably subject to a higher risk and uncertainty exposure, which leads to rising concerns about capital flow volatility. Significantly, several severe events in recent years (e.g., the 2008 financial crisis, the 2016 Brexit referendum, the 2018 China-US trade dispute, the 2020 global pandemic, and the 2022 Ukraine-Russia war) have compounded a progressively more unstable global financial and political environment and ultimately cast shocks to international capital flows. Moreover, the reduction in the global capital flow frequently overlaps with periods of increasing uncertainty. There have been growing studies (e.g., Fratzscher, 2012 Broner et al., 2013 Stokey, 2016 Falato, Goldstein and Hortacsu, 2021 Forbes and Warnock, 2021 Choi, Ciminelli and Furceri, 2023) prominently focuses the reaction of capital flow in the face of worldwide uncertainty and risks and suggest that the risk perceptions are likely to be the corresponding drivers of the international capital flows. However, whether multiple uncertainties can shape capital flows in similar or different ways remains unexplored.

The term structure of interest rates and economic activity: Evidence from the COVID-19 pandemic

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Athens University of Economics and Business | IPAG Business School | The American College of Greece

This paper tests the accuracy and predictability of two term-structure models using both yields-only and factor-augmented specifications focusing on the recent COVID-19 crisis. In addition, we test the predictive ability of the yield curve on economic activity for the US and other advanced countries. We provide evidence that models with an enhanced information set, including COVID-19 factors improve interest rate forecasts for this period. Also, we point out that term-structure models can determine future variations in economic activity but are time- and country-sensitive. Finally, out-of-sample analysis reveals that the use of factor-augmented term structure models, to reflect the current economic and market conditions, improves their forecasting accuracy.

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